

**Application of Pennsylvania-American Water Company for Acquisition of
the Wastewater Assets of the Township of Exeter
66 Pa. C.S. §1329
Application Filing Checklist – Water/Wastewater
Docket No. A-2018-_____**

5. Provide copies of two appraisals performed by separate utility valuation experts establishing the system's fair market value.

RESPONSE: See enclosed appraisals performed by Jerome C. Weinert, P.E., Principal and Director for AUS Consultants, Inc. on behalf of Pennsylvania-American Water Company ("PAWC") and by Harold Walker, III, for Gannett Fleming, Inc., on behalf of the Township of Exeter ("Exeter").

Jerome C. Weinert
Principal & Director

AUS Consultants

Depreciation and Valuation

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September 11, 2018

Mr. Andrew L. Swope
Vice President, General Counsel
Pennsylvania-American Water Company
800 West Hersheypark Drive
Hersey, PA 17033

RE: Exeter Township, PA Wastewater Utility Appraisal

Enclosed is the appraisal report for Exeter, PA's wastewater utility system as of January 1, 2018 prepared for Pennsylvania-American Water Company. The report was prepared based on the 2018-2019 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes (PA CS) Paragraph 1329 "Valuation of acquired water and wastewater systems", collectively referred to as Act 12 of the 2016 Pennsylvania legislative session (Act 12). The intended users of this appraisal are Pennsylvania-American Water Company and the Pennsylvania Public Utility Commission.

Based on our appraisal the Fair Market Value of Exeter's wastewater system property, plant, and equipment operating as a Pennsylvania rate regulated wastewater utility is \$101,817,000 determined based on the cost, income, and market approaches to value, as detailed in the following table:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Fair Market Value Appraisal

Appraisal Approach	Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach			
Depreciated Replacement Cost New	\$ 99,589,819		
Cost Approach Conclusion	99,589,819	50%	49,794,909
Income Approach			
	106,363,321		
Income Approach Conclusion	106,363,321	40%	42,545,328
Market Approach			
Market Approach Conclusion	94,769,671	10%	9,476,967
Appraisal Conclusion	\$ 101,817,204	100%	101,817,204
Conclusion (cost approach)	\$ 99,589,819		

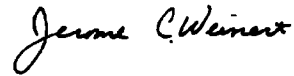
As the purpose of this appraisal was to fulfill the requirements of Act 12 in the establishment of value for rate making of Exeter's wastewater utility's property, plant and equipment, the cost approach conclusion of \$99,589,819 is consistent with the purpose of the appraisal. This cost approach conclusion is detailed in the Cost Approach of this report. As the cost approach work papers details our value conclusion by National Association of Regulatory Utility Commissioners' (NARUC) Uniform System of Accounts (USOA) for the wastewater industry

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account classifications and the installation year of the property this detail can be used to establish the booked value for future accounting and rate making.

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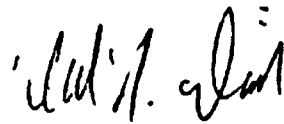
Respectfully Submitted,
AUS Consultants, Depreciation & Valuation
By:



Jerome C. Weinert, ASA, P.E., CDP
Principal and Director



David A. Sheffer
Principal



Michael J. Diedrich, ASA, P.E., CDP
Certified General Appraiser
Principal



Elizabeth A. Weinert
Associate

September 1, 2018

ASA: Accredited Senior Appraiser in the Machinery and Equipment (Public Utilities) discipline
of the American Society of Appraisers
P.E.: Registered Professional Engineer State of Wisconsin
CDP: Certified Depreciation Professions in the Society of Depreciation Professionals

Enclosures

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Exeter, Pennsylvania's Wastewater Utility

**Fair Market Value Appraisal Report
As of January 1, 2018
for
Pennsylvania-American Water Company**

**AUS Consultants
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September 11, 2018

Pennsylvania-American Water Company
Hersey, Pennsylvania

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RE: The Exeter, Pennsylvania Wastewater Utility Appraisal

Enclosed is the appraisal report for Exeter, PA's wastewater utility system as of January 1, 2018 prepared for our client Pennsylvania-American Water Company. The report was prepared based on the 2018-2019 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated (PA CS) Statutes Section 1329 "Valuation of acquired water and wastewater systems", collectively referred to as Act 12 of the 2016 Pennsylvania legislative session (Act 12). The intended users of this appraisal are Pennsylvania-American Water Company and the Pennsylvania Public Utility Commission.

Based on our appraisal, the Fair Market Value of the Exeter PA's wastewater utility's property, plant, and equipment operating as Pennsylvania rate regulated wastewater utility is \$101,817,000 determined based on the cost, income, and market approaches to value, as detailed in the following table:

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**Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Investor-Owned Utility
 As of January 1, 2018**

Fair Market Value Appraisal

Appraisal Approach	Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach			
Depreciated Replacement Cost New	\$ 99,589,819		
Cost Approach Conclusion	99,589,819	50%	49,794,909
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Market Approach			
Market Approach Conclusion	94,769,671	10%	9,476,967
Appraisal Conclusion	\$ 101,817,204	100%	101,817,204
Conclusion (cost approach)	\$ 99,589,819		

As the purpose of this appraisal was to fulfill the requirements of Section 1329 of the PA CS in the establishment of value for rate making of Exeter's property, plant and equipment, the cost approach conclusion of \$99,589,819 is consistent with the purpose of the appraisal. This cost approach conclusion is detailed in the Cost Approach of this report. As the cost approach work papers details our value conclusion by National Association of Regulatory Utility

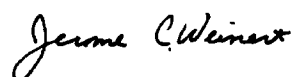
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Commissioners' (NARUC) Uniform System of Accounts (USOA) for the wastewater industry account classifications and the installation year of the property this detail can be used to establish the booked value for future accounting and rate making.

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Respectfully Submitted,


AUS Consultants, Depreciation & Valuation
By:



Jerome C. Weinert, ASA, P.E., CDP
Principal and Director



David A. Sheffer
Principal



Michael J. Diedrich, ASA, P.E., CDP
Certified General Appraiser
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September 11, 2018

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APPRAISAL CERTIFICATION
for the Fair Market Appraisal of
Exeter Township, Pennsylvania's Wastewater Utility
As of January 1, 2018
Prepared for
Pennsylvania-American Water Company

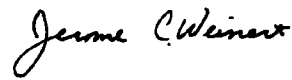
AUS Consultants, Depreciation & Valuation, certifies that, to the best of its knowledge and belief:

- The statements of fact contained in this report are true and correct.
- Over the last three years, AUS Consultants has not appraised these properties.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- AUS Consultants, Depreciation & Valuation, or its professional staff have no present or prospective interest in the property that is the subject of this report, and has no personal interest with respect to the parties involved.
- Neither AUS Consultants, Depreciation & Valuation, nor its professional staff has any bias with respect to the property that is the subject of this report or to the parties involved.
- Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice 2018-2019 Edition.
- The signer (David A. Sheffer) of this report has made personal inspections of the property that is the subject of this report.
- All individuals who participated in the preparation of this report and who are Senior Members of the American Society of Appraisers are re-certified as required by the mandatory re-certification as set out in the constitution by-laws and administrative rules of the American Society of Appraisers.

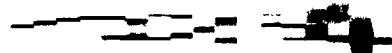
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- No individuals provided significant professional assistance to the persons signing this report. However, the following Pennsylvania-American Water Company personnel provided information and assistance obtained from Exeter Township, Pennsylvania and Gannett Fleming Valuation and Rate Consultants, LC's Engineers Assessment report which was the inventory starting point of the Cost Approach.

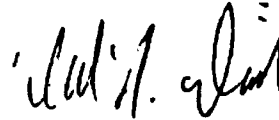
AUS Consultants, Depreciation & Valuation
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Michael J. Diedrich, ASA, P.E., CDP
Certified General Appraiser
Principal



Elizabeth A. Weinert
Associate

September 11, 2018

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NARRATIVE REPORT

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EXECUTIVE SUMMARY

The purpose of this appraisal is the determination of the fair market value of the property plant and equipment of Exeter Township, Pennsylvania's wastewater utility for our client Pennsylvania-American Water Company. The report was prepared based on the 2018-2019 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes Paragraph 1329: "Valuation of acquired water and wastewater systems", collectively referred to as Act 12 of the 2016 Pennsylvania legislative session (Act 12) and the Pennsylvania Public Utility Commission's Final Implementation Order M-2016-2543193 adopted October 27, 2016. The intended users of this appraisal are Pennsylvania-American Water Company and the Pennsylvania Public Utility Commission (PUC).

The value established in this appraisal was based on the definition of Market Value as:

"The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress." The Appraisal of Real Estate, 14th Edition, page 58.

In arriving at our opinion of value of Exeter wastewater utility's property, plant, and equipment as it is operated as an investor-owned Pennsylvania PUC rate regulated wastewater utility the cost, income, and market approaches to value were considered. Detailed explanations of each approach to value are included below in the section "Appraisal Procedures and Results". The following summarizes the data, analysis and conclusions of each of those valuation approaches.

Cost Approach - The philosophy in the cost approach to value is that the maximum value of a property is established by the cost to acquire or build a similar property. In this appraisal, the cost approach to value was analyzed using reproduction/replacement cost approach.

Reproduction cost and replacement cost are defined as:

Reproduction cost – “Reproduction cost is the estimated cost to construct, as of the effective appraisal date, an exact duplicate or replica of the building [property] being appraised, insofar as possible, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, super-adequacies, and obsolescence of the subject improvements [property].”¹

Replacement cost – “Replacement cost is the estimated cost to construct, as of the effective appraisal date, a substitute for the building [property] being appraised using contemporary materials, standards, design and layout. When this cost basis is used, some existing obsolescence in the property may be cured. Replacement cost may be the only alternative if reproduction cost cannot be estimated”²

In the wastewater industry the property’s reproduction costs and replacement costs are quite similar; therefore, the property’s cost new was determined based on its replacement cost new estimated by the trended original cost or the inventory-unit cost methods.

The trended original cost method was utilized in preparing the replacement cost new. “Trending is a method of estimating a property’s replacement cost new in which an *index* or *trend factor* is applied to the property’s *historical costs* to convert the known historical costs into an indication of current (appraisal date) costs. Simply put, trending reflects the movement of price over time.”³ In the trended original cost method, Exeter’s investment in wastewater plant and equipment is restated to costs reflective of the appraisal date, by the application of cost trends to the property’s original investment. AUS Consultants utilized the Engineer’s Assessment performed by Gannett Fleming Valuation and Rate Consultants, LC (Engineer’s Assessment tab) as the starting point of the Cost Approach. Utilizing the Engineer’s Assessment AUS Consultant developed Exeter’s original cost less depreciation in property, plant and equipment at January 1, 2018 (AUS Cost Approach tab).

The cost trends were applied to each of the Exeter’s various investment categories (plant accounts) by original year of placement for that investment. The cost indexes

¹ The Appraisal of Real Estate, 14th Edition. pages 569-570

² Ibid, page 570

³ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Third Edition. Page 50

used in these studies were the Handy-Whitman Index of Public Utility Construction Costs for the water industry in the northeastern region of the United States, AUS General Plant Indexes, and various United States Bureau of Labor Statistics (US BLS) indexes as detailed in the following table:

Pennsylvania-American Water Company
 Eastern Wastewater System
 Wastewater System
 Investor-Owned Utility
 January 1, 2018

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies									
(1)	(2)	(3a)	(3b)	(3c)	(3d)	(3e)	(4a)	(4b)	(5)
Account Number	Description	Costing Parameters	Table	Line Reference	Lookup	Reproduction to Replacement Cost Factor	How Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence
		Index Series				AUS Input		years	years
	Non-Depreciable								
	Land & Land Rights						Non-Depr		
	Depreciable								
353.00	Land & Land Rights								
353.10	Land & Land Rights	USBLS	PPI	3	USBLS3	1.000	Non-Depr	0	0%
353.20	Land & Land Rights - Collection	USBLS	PPI	1	USBLS1	1.000	Non-Depr	0	0%
353.30	Land & Land Rights - Pumping	USBLS	PPI	1	USBLS1	1.000	Non-Depr	0	0%
353.40	Land & Land Rights - Treatment	USBLS	PPI	1	USBLS1	1.000	Non-Depr	0	0%
354.00	Structures & Improvements						R4.0	45	
354.30	Structures & Improvements - Pumping	HW	W-1	8	HWW-18	1.000	R4.0	45	0%
354.40	Structures & Improvements - Treatment	HW	W-1	15	HWW-115	1.000	R4.0	55	0%
355.00	Generating Equipment	USBLS	PPI	4	USBLS4	1.000	R3.0	35	0%
355.30	Generating Equipment - Pumping	USBLS	PPI	4	USBLS4	1.000	R3.0	35	0%
360.00	Mains Force						R3.0	60	
360.21	Collection Sewers - Force - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
360.211	Collection Sewers - Force - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	60	0%
360.213	Collection Sewers - Force - Mains - DI	HW	W-1	35	HWW-135	1.000	R3.0	60	0%
360.23	Collection Sewers - Force - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	65	0%
360.31	Air Release	HW	W-1	41	HWW-141	1.000	R3.0	45	0%
360.41	Valves	HW	W-1	44	HWW-144	1.000	R3.0	45	0%
361.00	Mains Gravity						R3.0	80	
361.12	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
361.21	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
361.111	Collection Sewers - Gravity - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	80	0%
361.212	Collection Sewers - Gravity - Mains - VCP	HW	W-1	36	HWW-136	1.000	R3.0	80	0%
361.213	Collection Sewers - Gravity - Mains - DI	HW	W-1	35	HWW-135	1.000	R3.0	80	0%
361.22	Collection Sewers - Gravity - Mains - Relining	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
361.23	Collection Sewers - Gravity - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	80	0%
361.24	Collection Sewers - Gravity - Manholes - Repairs	HW	W-1	45	HWW-145	1.000	R3.0	80	0%
361.71	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
363.00	Service Laterals	HW	W-1	39	HWW-139	1.000	R3.0	55	0%
363.70	Service Laterals	HW	W-1	39	HWW-139	1.000	R3.0	55	0%
364.00	Flow Measuring Devices	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
364.20	Flow Measuring Devices	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
365.00	Flow Measuring Installations	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
371.00	Pumping Equipment	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
371.30	Pumping Equipment	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
371.42	Pumping Equipment - Grinder	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
380.00	Treatment and Disposal Equipment						R3.0	45	
380.40	Treatment and Disposal Equipment	HW	W-1	17	HWW-117	1.000	R3.0	45	0%
390.00	General Plant						R3.0	12	
390.70	Office Furniture and Equipment	AUS	T-1	15	AUST-115	1.000	R3.0	12	0%
391.70	Transportation Equipment	AUS	T-1	4	AUST-14	1.000	R3.0	10	0%
392.70	Stores Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0
393.70	Tools, shop, & Garage Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0%
394.70	Laboratory Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	20	0%
395.70	Power Operated Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	15	0%
396.70	Communications Equipment	USBLS	PPI	2	USBLS2	1.000	R3.0	12	0%
397.70	Miscellaneous Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
398.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
399.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%

Using the trended original cost method, Exeter's investment in plant, property and equipment of \$68,404,345 was determined to have a reproduction cost new of \$209,865,528.

Replacement Cost New - In the wastewater industry the property's reproduction costs and replacement costs are quite similar; therefore, the property's cost new was determined based on its replacement cost new." In this instance the reproduction costs and replacement costs are the same hence I used reproduction and replacement cost interchangeably. The exception to this was the investment associated with the mains relining (361.22) and the manhole repairs (361.24) wherein the replacement cost as estimated at 10% of their reproduction cost. The replacement cost new was determined to be \$209,693,218.

Replacement Cost New Less Depreciation - The replacement cost described above reflects the cost of new property; however, Exeter's wastewater system property is not new and has experienced normal depreciation and potentially functional and/or economic obsolescence. These various forms of depreciation are defined as follows:

Normal depreciation/deterioration, akin to physical deterioration, is "loss in value caused by wear, tear, age and use."⁴

Functional obsolescence is "the loss in value or usefulness of a property caused by inefficiencies or inadequacies of the property itself, when compared to a more efficient or less costly replacement property that new technology has developed."⁵

Economic, or external, obsolescence is defined as "a loss in value caused by factors outside a property"⁶ and is most often indicated by insufficient earning.

⁴ The Dictionary of Real Estate Appraisal, 4th Edition

⁵ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition. Page 67.

⁶ The Appraisal of Real Estate, 13th Edition, page 442.

Based on our experience in regard to: water and wastewater depreciation studies and our analysis of Exeter's wastewater system operating performance; we found that Exeter's wastewater utility's property experiences normal depreciation but not any significant functional or economic obsolescence (see Income Approach).

In order to ascertain the service lives of the various types of Exeter's property, plant and equipment, we considered AUS Consultants' past water and wastewater depreciation studies, documentation provided by Exeter Township, and the interviews with Pennsylvania-American's personnel and consultants. Through our experience and the above described information, the following normal depreciation parameters of survival/retirement characteristics and service lives were determined for Exeter's wastewater utility property:

(1)	(2)	(3)			(3d)	(3e)	(4)	(4b)	(5)
Account Number	Description	Costing Parameters	Table	Line Reference	Lookup	Replacement Cost Factor	Reproduction to Iowa Survivor / Retirement Curve	Normal Service Life years	Economic Obsolescence years
	Land & Land Rights					AUS Input	Non Depr		
	Non-Depreciable								
	Depreciable								
353.00	Land & Land Rights								
353.10	Land & Land Rights	USBL5	PP1	3	USBL53	1.000	Non-Depr	0	0%
353.20	Land & Land Rights - Collection	USBL5	PP1	1	USBL51	1.000	Non-Depr	0	0%
353.30	Land & Land Rights - Pumping	USBL5	PP1	1	USBL51	1.000	Non-Depr	0	0%
353.40	Land & Land Rights - Treatment	USBL5	PP1	1	USBL51	1.000	Non-Depr	0	0%
354.00	Structures & Improvements						R3.0	45	
354.30	Structures & Improvements - Pumping	HW	W-1	8	HWW-18	1.000	R4.0	45	0%
354.40	Structures & Improvements - Treatment	HW	W-1	15	HWW-125	1.000	R4.0	55	0%
355.00	Generat ng Equipment	USBL5	PP1	4	USBL54	1.000	R3.0	35	0%
355.30	Generat ng Equipment - Pump ng	USBL5	PP1	4	USBL54	1.000	R3.0	35	0%
360.00	Mains Force						R3.0	60	
360.21	Collection Sewers - Force - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
360.211	Collection Sewers - Force - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	60	0%
360.213	Collection Sewers - Force - Mains - Di	HW	W-1	35	HWW-135	1.000	R3.0	60	0%
360.23	Collection Sewers - Force - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	65	0%
360.31	Al. Release	HW	W-1	44	HWW-144	1.000	R3.0	45	0%
360.41	Valves	HW	W-1	44	HWW-144	1.000	R3.0	45	0%
361.00	Mains Gravity						R3.0	80	
361.12	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
361.21	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
361.211	Collection Sewers - Gravity - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	80	0%
361.212	Collection Sewers - Gravity - Mains - VCP	HW	W-1	36	HWW-136	1.000	R3.0	80	0%
361.213	Collection Sewers - Gravity - Mains - Di	HW	W-1	35	HWW-135	1.000	R3.0	80	0%
361.22	Collection Sewers - Gravity - Mains Reti ng	HW	W-1	44	HWW-144	0.100	R3.0	70	0%
361.23	Collection Sewers - Gravity - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	80	0%
361.24	Collection Sewers - Gravity - Manholes Repairs	HW	W-1	45	HWW-145	0.100	R3.0	80	0%
361.71	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	80	0%
363.00	Service Laterals						R3.0	55	
363.20	Service Laterals	HW	W-1	39	HWW-139	1.000	R3.0	55	0%
364.00	Flow Measuring Devices						R3.0	35	
364.20	Flow Measuring Devices	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
365.20	Flow Measuring Installations	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
371.00	Pumping Equipment						R3.0	35	
371.30	Pumping Equipment	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
371.32	Pumping Equipment - Grinder	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
380.00	Treatment and Disposal Equipment						R3.0	45	
380.40	Treatment and Disposal Equipment	HW	W-1	17	HWW-117	1.000	R3.0	45	0%
390.00	General Plant						R3.0	12	
390.70	Office Furniture and Equipment	AUS	T-1	15	AUST-115	1.000	R3.0	12	0%
391.70	Transportation Equipment	AUS	T-1	4	AUST-14	1.000	R3.0	10	0%
392.70	Stores Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0%
393.70	Tools, Shop, & Garage Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0%
394.70	Laboratory Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	20	0%
395.70	Power Operated Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	15	0%
396.70	Communications Equipment	USBL5	PP1	2	USBL52	1.000	R3.0	12	0%
397.70	Miscellaneous Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
398.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
399.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%

Normal Depreciation – The extent of the normal depreciation in the property was evaluated using age-life depreciation techniques. In age-life depreciation, the property’s depreciation or condition is estimated using the following formula:

$$\text{Depreciation (\%)} = \frac{\text{Age (years)} \times 100\%}{\text{Service Life (years)}}$$

$$\text{Condition (\%)} = \frac{\text{Remaining Life (years)} \times (100\%)}{\text{Service Life (years)}}$$

where: the property’s Service Life = Age + Remaining Life

In the discounted cash flow (DCF) approach, the property's economic returns are forecast for future periods. The cash flows (after-tax debt free cash flows) from operations are discounted to the appraisal date using a market derived discount resulting in the DCF approach's income indicator of value. Use of the DCF approach allows the appraiser to address the property's historical operating experience and its migration, in future periods, to an operation as a rate regulated operation; thus making the DCF approach preferable.

In preparing this appraisal's DCF analysis first, the results from Exeter's wastewater utility's operations were evaluated based on an analysis of historical operating performances over the period 2010 through 2017 resulting in operating statistics such as revenues and their growth, various operating expenses stated as function of their typical drivers (revenues, plant investment, income from operations, etc.). Next, the results of future periods operations were forecast based on the migration of Exeter's historical operations over time to operations of the Exeter's wastewater operation similar to a public investor-owned water/wastewater utility. Finally, the resultant cash flows from future period operations on the Exeter wastewater system were discounted to the appraisal date using a market derived discount rate for a public investor-owned water/wastewater utility. The following table presents the results of the discounted cash flow analysis:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Potential Purchaser - Investor-Owned Utility
As of January 1, 2018
Discounted Cash Flow Analysis**

Discount Rate		7.19%												
Capitalization Rate		5.6%												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
Period	Age	Revenue	OSM 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	Present Worth Factor (PW)	PW of Cashflow	Accumulated PW of Cashflows	
					(3)-(4)	(6)-(5)	(7) *28.89%			(3)-(4)-(5)-(7)-(9)-(10)		(11)*(12)	Sum (13)	
1	0.5	5,664,515	2,556,310	3,917,995	7,098,205	3,185,310	920,236	1,511,155	213,383	4,980,197	0.966	4,810,870	4,810,870	
2	1.5	4,761,160	2,347,127	3,364,115	7,114,036	3,152,921	910,879	429,959	17,625	4,778,803	0.901	4,305,702	9,116,572	
3	2.5	3,858,471	2,130,555	4,010,755	7,128,217	3,117,462	900,635	1,449,037	19,567	4,784,307	0.841	4,023,518	13,140,090	
4	3.5	3,957,360	2,816,691	4,461,846	7,140,669	3,078,823	889,472	1,468,197	15,716	4,788,518	0.784	3,754,198	16,894,288	
5	4.5	11,052,670	2,905,623	4,114,121	8,147,047	4,032,626	1,165,026	1,488,038	63,528	5,557,511	0.732	4,068,098	20,962,386	
6	5.5	11,273,723	2,997,437	4,168,233	8,276,276	4,107,763	1,186,733	1,507,965	117,871	5,594,399	0.683	3,820,975	24,783,361	
7	6.5	11,498,197	3,092,801	4,283,302	8,406,997	4,124,635	1,191,318	1,520,771	117,077	5,477,925	0.643	3,489,438	28,272,799	
8	7.5	11,728,181	3,140,168	4,317,324	8,539,013	4,185,689	1,209,246	1,781,572	113,133	5,561,286	0.594	3,303,404	31,576,203	
9	8.5	12,667,515	3,291,477	4,425,889	9,376,243	4,950,354	1,430,157	1,813,467	151,424	6,187,043	0.554	3,427,622	35,003,825	
10	9.5	13,427,566	3,395,745	4,501,072	10,031,887	5,530,815	1,597,853	1,845,136	14,083	6,632,391	0.517	3,423,946	38,427,771	
11	10.5	13,676,117	3,503,525	4,578,949	10,192,612	5,613,663	1,621,787	1,878,510	115,576	6,707,791	0.482	3,233,155	41,660,926	
12	11.5	13,970,039	3,614,365	4,659,597	10,355,174	5,695,577	1,645,452	1,912,140	15,887	6,813,479	0.450	3,066,066	44,726,992	
13	12.5	15,087,642	3,729,479	4,730,139	11,357,763	6,627,614	1,914,718	1,946,302	84,871	7,561,564	0.420	3,175,857	47,902,849	
14	13.5	15,389,395	3,848,672	4,816,514	11,540,723	6,724,209	1,942,624	1,981,137	17,502	7,634,464	0.392	2,992,710	50,900,559	
15	14.5	16,312,759	3,971,376	4,905,878	12,341,383	7,435,485	2,148,112	2,076,657	153,533	8,230,176	0.365	3,009,014	53,909,573	
16	15.5	16,312,759	4,098,124	4,984,710	12,214,635	7,450,425	2,152,428	1,686,951		8,375,256	0.341	2,855,962	56,760,535	
17	16.5	17,291,525	4,229,290	4,836,167	13,062,475	8,226,108	2,376,523	1,717,732	156,768	9,031,990	0.318	2,872,173	59,632,708	
18	17.5	17,291,525	4,364,325	4,841,729	12,927,220	8,085,491	2,335,898	1,744,870		8,856,452	0.297	2,630,366	62,263,074	
19	18.5	17,291,525	4,504,038	4,347,192	12,787,487	7,940,294	2,293,951	1,759,175		8,734,160	0.277	2,419,362	64,682,436	
20 and beyond	19.5	17,983,186	4,648,405	4,924,252	13,394,781	8,411,229	2,430,004	1,784,760	140,117	9,150,634	4.550	41,680,885	106,363,321	
			70,145,348					34,357,351						
Age										19.5				
PW(Age) = 1/(1+Discount Rate) ^{Age}										0.258				
PW to Perpetuity = 1/Capitalization Rate										17.637				
PW(20 and beyond) = PW to Perpetuity * PW Factor _{19.5}										4.55				

Based on the above described discounted cash flow analysis, the Income Approach to value of the Exeter's wastewater property and its operations was determined to be \$106,817,204.

Market Approach

The market or comparable sales approach to value looks to market sales of comparable properties in order to arrive at value. In this appraisal, the market approach was addressed from a comparable sales approach of Pennsylvania wastewater systems and market value to book value ratios based on investor owned water utilities financial performance as reported in Value Line Investment Survey.

Market Sales – In the comparable sale market approach the sales of Pennsylvania municipal wastewater systems to investor owned water/wastewater utilities were used to insure comparability. As the purpose of this appraisal is to define the value of Exeter's

wastewater utility under Section 1329 of the PA CS the market comparable sales were limited to sales subsequent to the passage of Section 1329 in 2016. The sale of the City of McKeesport, Pennsylvania wastewater system to Pennsylvania-American Water (announced September 9, 2016) and the sales of New Garden Township's sewer, Limerick Wastewater and East Bradford Wastewater Collection systems to Aqua Pennsylvania, Inc. were analyzed in relationship to those properties' depreciated original cost and depreciated replacement cost (Market Approach tab).

Financial Market Ratios – In the market approach based on market financial ratios the market data of companies (nine) in the water/wastewater industry as reported in Value Line Investment Surveys (January 2018) were analyzed. In the analysis, the companies' stock (market) and debt (book value) per share are compared as a ratio to the book investment value per share.

The following table summarizes both the comparable sales and financial market ratio analysis and the Market Approach conclusion of this appraisal:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Market Approach Summary

	Book Ratios	Purchase Price to Depreciated Original Cost (Book Value)	Indicated Market Value
Comparable Sales			
Depreciated Original Cost (AUS Consultants) OCLD	40,057,633.92	1.5819	63,367,171
Replacement Cost New less Depreciation RCNLD	99,589,818.55	0.9516	94,769,671
Average			79,068,421
Use (RCNLD)			94,769,671
	Market Value per Share to Book Value per Share		
Financial Markets			
Market to Book (equity)	2.61		
Market to Book (equity and debt)	1.77		
Use (equity and debt)	1.77		
	Investor Purchaser Owned Value to Depreciated Original Cost (Book Value)		
Market Conclusion			
	Exeter Wastewater System		
Exeter Wastewater System			
AUS Depreciated Original Cost	40,057,634	1.77	70,902,012
Market Value			Indicated Value \$s
Minimum			63,367,171
Mean			76,346,285
Median			70,902,012
Maximum			94,769,671
Use (RCNLD)			94,769,671

The market approach conclusion of this appraisal was determined to be \$94,769,671.

Cost Approach Revisited – Before concluding this appraisal's fair market value the preliminary cost approach conclusion of \$99,589,819 needs to be reviewed in light of the above described income and market analyses in order to evaluate if external obsolescence exists in the preliminary replacement cost new less depreciation conclusion. The appraisal literature in regards to developing a cost approach states:

"The last step in the implementation of the cost approach is to estimate *economic obsolescence*. Economic obsolescence (sometimes called "external obsolescence") has been previously defined as the loss in value or usefulness of a property caused by factors external to the asset. These factors include increased cost of raw materials, labor, utilities (without an offsetting increase in product price); reduced demand for the product; increased competition; environmental or other regulations; or similar factors.

The difficulty in measuring the full effect of economic obsolescence is one of the weaknesses of the cost approach. Because economic obsolescence is usually a function of outside influences that affect an entire business (i.e., all tangible and intangible assets) rather than individual assets or isolated groups of assets, it is sometimes measured using the income approach or by using the income approach to help identify the existence of economic influences on value. However, the cost approach can be used to measure some forms of economic obsolescence."⁷

The above described income approach value conclusion of \$106,363,321 and the market approach conclusion of \$94,789,671 for the Exeter's future wastewater system compared to the preliminary cost approach conclusion of \$99,589,819 indicates no significant external obsolescence exists in the cost approach conclusion of \$99,589,819.

Value Conclusion

The Fair Market Value of Exeter's wastewater property, plant and equipment and its operation was determined to be \$101,817,000 as follows:

⁷ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, pp. 96-97.

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Fair Market Value Appraisal

Appraisal Approach	Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach			
Depreciated Replacement Cost New	\$ 99,589,819		
Cost Approach Conclusion	99,589,819	50%	49,794,909
Income Approach			
	106,363,321		
Income Approach Conclusion	106,363,321	40%	42,545,328
Market Approach			
Market Approach Conclusion	94,769,671	10%	9,476,967
Appraisal Conclusion	\$ 101,817,204	100%	101,817,204
Conclusion (cost approach)	\$ 99,589,819		

As the purpose of this appraisal was to fulfill the requirements of Section 1329 of the PA CS in the establishment of value for rate making of Exeter's property, plant and equipment, the cost approach conclusion of \$99,589,819 is consistent with the purpose of the appraisal. This cost approach conclusion is detailed (Cost Approach tab of this report). As the cost approach work papers details our value conclusion by National Association of Regulatory Utility Commissioners' (NARUC) Uniform System of Accounts (USOA) for the wastewater industry account classifications and the installation year of

the property this detail can be used to establish the booked value for future accounting and rate making.

PURPOSE AND SCOPE OF WORK

The purpose of this appraisal of Exeter, Pennsylvania's wastewater utility is the determination of the fair market value of the property plant and equipment of Exeter wastewater utility. The report was prepared based on the 2018-2019 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes (PA CS) Paragraph 1329: Valuation of acquired water and wastewater systems, collectively referred to as Act 12 of the 2016 Pennsylvania legislative session (Act 12). The intended users of this appraisal are Pennsylvania-American Water Company and Pennsylvania Public Utility Commission.

The value established in this appraisal was based on the definition of Market Value as:

"The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress." The Appraisal of Real Estate, 14th Edition, page 58.

In conducting this appraisal, we utilized several sources of data:

- Annual (year-end) Exeter, Pennsylvania wastewater operational financial statements cover the period 2010 through 2017 results.
- The Gannett Fleming Valuation and Rate Consultants Engineer's Assessment of Exeter, Pennsylvania wastewater facilities' inventory at August 2018.
- The Handy-Whitman (water industry) Index of Public Utilities Construction Costs for northeastern United States, AUS Consultant General Plant Cost Indexes for the period 1946 through January 1, 2018, and various cost indexes published by the United States Bureau of Labor Statistics (US BLS).

- We conducted interviews and discussions with Pennsylvania-American Water Company personnel.

In preparing this fair market value appraisal of the Exeter, Pennsylvania's wastewater system property, plant and equipment, and its operations, the cost, income, and market approaches to value were considered. Primary reliance was placed on the cost approach for the property, plant and equipment, with the income approach and market approaches being utilized to confirm the overall value of the wastewater system's operation. A detailed explanation of each approach to value is included below in the section "Appraisal Procedures and Results".

WATER/WASTEWATER INDUSTRY NATIONALLY AND IN PENNSYLVANIA
AND
EXETER PENNSYLVANIA WASTEWATER FACILITIES

Water/wastewater Industry

The water and wastewater industry in the United States consist of both municipal authorities (literally thousands) and private investor owned companies. Of the investor owned there are nine which are large enough to be tracked by Value Line Investment Surveys, of which, two are major players in the northeast portion of the United States, American Water Works Company, Inc. and Aqua America, Inc. American and Aqua have been particularly active in the acquisition of municipal water and wastewater authorities as such in this appraisal these two were reviewed as being indicative of the industry's financial and operating performance.

Pennsylvania Water / Wastewater Industry

The water and wastewater industry in Pennsylvania also consist of both municipal and investor owned systems. Over the last several years the need for infrastructure improvements has lead the Pennsylvania legislature to pass legislation facilitating the acquisition of municipal water and/or wastewater authorities' systems to private investor owned rate regulated companies such as American Water and Aqua America. This legislation, Act 12 of the Pennsylvania legislator's 2016 legislative session (Act 12). The Act 12 legislation added a section (1329) modifying Title 66 (Public Utilities) of the Pennsylvania Consolidated Statues (PA CS) adding Section 1329: Valuation of acquired water and wastewater systems (see Act 12 tab), collectively referred to as Act 12. This appraisal was developed to meet the valuation criteria established by Section 1329 in the valuation of acquired water and wastewater systems.

Exeter Township, Pennsylvania's Wastewater Facilities, its Property and Operations⁸

The Exeter Township ("Township") is located within the Reading Metropolitan Area in the south central section of Berks County, Pennsylvania, about 1 1/2 miles east of the City of Reading. The Township consists of 24.1 square miles and is bounded by the Townships of Alsace, Amity, Cumru, Lower Alsace, Oley and Robeson; by the Boroughs of Birdsboro, Mount Penn and St. Lawrence; and by the Schuylkill River.

The Township owns and operates a wastewater system consisting of wastewater treatment facilities, gravity mains, force mains, pump houses, associated infrastructure and appurtenances, and related land and land rights ("Wastewater System"). The Wastewater System serves Township, St. Lawrence Borough, the Shady Lane Estates area of Alsace Township, and a small portion of Lower Alsace Township.

The Township Wastewater Treatment Plant ("WWTP") operates under National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026972. The WWTP treats wastewater originating from Township, St. Lawrence Borough, and small portions of Alsace Township and Lower Alsace Township in Berks County and consists of two (2) separate treatment flow trains, the East WWTP and the West WWTP. The East WWTP is used exclusively for the equalization of high-strength residual waste, as needed. The West WWTP consists of the Main Pumping Station, Headworks Building, four (4) Primary Clarifiers, three (3) 1st Stage Aeration Tanks, two (2) 2nd Stage Aeration Tanks, four (4) Final Clarifiers, and two (2) Chlorine Contact Tanks.

The WWTP (combined East and West treatment trains) is currently permitted for an annual average daily flow capacity of 7.10 million gallons per day (mgd) and a maximum month average daily flow capacity of 9.63 mgd. Additionally, the WWTP (combined East and West treatment trains) is permitted for a maximum month organic loading capacity of 20,289 pounds of BOD5 per day (lbs. BOD5/day). The West WWTP has a maximum month flow capacity of 8.43 mgd and a maximum month organic loading capacity of 17,739 lbs. BOD/day. A summary of the hydraulic and organic loading capacities of each treatment train is summarized below.

	Hydraulic Capacity		Organic Capacity
	Annual Average (mgd)	Maximum Month (mgd)	Maximum Month (lbs. BOD/day)
East WWTP	1.20	1.20	2,550
West WWTP	5.90	8.43	17,739

⁸ Extracted from Engineer's Assessment

Combined	7.10	9.63	20,289
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Solids production and handling occurs in several stages. Raw sludge from the Primary Clarifiers is pumped directly to one of the two (2) Primary Anaerobic Digesters. Waste Activated Sludge from the biological system is gravity thickened before also being pumped to one of the two (2) Primary Anaerobic Digesters. After digestion, the stabilized biosolids are transferred to an aerated Sludge Holding Tank before being dewatered by one of two (2) Centrifuges. A Sludge Dryer (“Biosolids Drying Facility”) provides drying of dewatered biosolids. Dried biosolids are disposed of at a landfill.

The Biosolids Drying Facility reduces operating costs for the Wastewater System, and, at the same time, creates the opportunity to convert a waste product into fertilizer or an energy source. The Wastewater System’s sludge averages approximately 24% solid and 76% water. By using a dryer, the sludge becomes approximately 94% solid and 6% water. Using this process, only 1/5th of the amount of dewatered sludge has to be disposed of for approximately 20% of the disposal cost, or at no cost at all as a result of local farmers taking and using byproduct from the WWTP in farming operations. The biosolids meet the most stringent trace element limits, Class A pathogen, and vector reduction standards set forth by the Pennsylvania Department of Environmental Protection.

The Wastewater System continues operation of an USEPA-approved Industrial Pretreatment Program. Five (5) significant industrial users are connected to the system, of which two (2) are considered categorical industrial users by definition:

- > BFK Corporation
- > Godiva Chocolates
- > FR&S / Pioneer Crossing Landfill
- > SFS Intek (Categorical Industrial User)
- > Arkema, Inc. (Categorical Industrial User)

All permitted industrial users are inspected and sampled, and all have submitted the required self-monitoring reports under the terms of their industrial discharge permits. The Township’s 2017 Pretreatment Annual Report indicated that there were no industrial discharge violations or significant non-compliances during the year.

The Wastewater System routinely receives hauled leachate from several landfills, assorted commercial and industrial waste, residential septage, grease, and sludge that is delivered to the WWTP by multiple contract haulers. Hauled waste is discharged from the tanker trucks at several customized discharge locations throughout the WWTP. Grease is discharged into the Primary Clarifier scum pit and pumped directly to the Primary Anaerobic Digester.

COLLECTION SYSTEM

The Wastewater System's collection system collects domestic wastes and industrial wastes through 123 miles of gravity sewers and convey the wastes to the WWTP. In addition, six (6) pumping stations convey less than 3% of the total collection system flow to the WWTP. Township personnel are responsible for operation and maintenance of the WWTP, as well as the Wastewater System's collection system and pumping stations. Collection system maintenance consists of regular flushing of main lines, maintenance of rights-of-way, and repair and replacement of sewer lines, as needed. The Wastewater System's collection system is considered to be in satisfactory condition. Repair and replacement of damaged main lines and manholes is performed in a timely manner.

The Wastewater System also provides service to St. Lawrence Borough and a portion Lower Alsace and Alsace Townships under Inter-municipal Agreements. Areas included under agreement are the Borough of St. Lawrence, and small portions of the Alsace Township and Lower Alsace Township, all located in Berks County. Except for the billing agreement with Lower Alsace Township, none of the current Inter-municipal Agreements between the Township and St. Lawrence, Alsace Township, or Lower Alsace Township contain termination provisions

The St. Lawrence Borough collection system contains multiple connection points to the Wastewater System's collection system including a portion of Antietam Creek Trunk Sewer located within the Borough, and owned by the Borough. Shady Lane Estates in Alsace Township is connected the Wastewater System. Various properties within Lower Alsace Township connect to the Antietam Creek Trunk Sewer where it is located within Lower Alsace Township.

The Wastewater System's collection system is divided into three main drainage basins where waste is conveyed to the WWTP though the Schuylkill River, Heisters Creek and Antietam Creek Trunk Sewers. The Schuylkill River Trunk Sewer begins at the WWTP and continues along the southern border of the Township and the Schuylkill River, then turning north along East Neversink Road ending at S.R. 422. The Schuylkill River Trunk Sewer is 15-inches in diameter up to the connection point of the Antietam Creek Trunk Sewer where it is enlarged to 30-inches in diameter up to the WWTP.

The Heisters Creek Trunk Sewer begins at the WWTP and continues upstream along the Heisters Creek, where it branches to the collection system. The Heisters Creek Trunk Sewer ranges in diameter from 8-inches at its upper reaches to 16-inches at the connection point to the Schuylkill River Trunk Sewer.

The Antietam Creek Trunk Sewer begins at the Schuylkill River Trunk Sewer at the southern border of the Township and extends north through St. Lawrence Borough near Butter Lane. The Antietam Creek Trunk Sewer ranges in diameter from 12-inches at its upper reaches to 27-inches at the connection point to the Schuylkill River Trunk Sewer. St. Lawrence Borough and parts of Lower Alsace and Alsace Townships are served by the Antietam Creek Trunk Sewer and the WWTP.

The Wastewater System includes six (6) pumping stations within its collection system: Lincoln Road, Buddies Place, Pottstown Avenue, South Baumstown, Pineland Road, and Glen Oley. All six (6) pumping stations are maintained and inspected by WWTP operators and Township maintenance personnel on a regular basis. Pumping station inspections typically occur three (3) times per week, except at the Lincoln Road Pumping Station, which is checked daily. Cleaning, repairs, and routine maintenance items are performed regularly.

Inspection logs for various pieces of equipment are also posted at each pumping station. Preventative maintenance to the pumping stations in 2017 included flushing wet wells, exercising valves every three months and operating back-up generators, under load, according to manufacturer specifications.

A summary of the pumping stations' capacity and recent historical flow of each pumping station is summarized below.

Pumping Station	Rated Capacity (MGD)	Annual Average Daily Flow (MGD)					
		2012	2013	2014	2015	2016	2017
Lincoln Road	1.08	0.074	0.076	0.081	0.073	0.074	0.079
Buddies Place	0.206	0.007	0.009	0.009	0.008	0.007	0.006
Pottstown Ave	0.238	0.007	0.008	0.009	0.007	0.007	0.009
South Baumstown	0.242	0.009	0.009	0.010	0.010	0.010	0.010
Pineland Road	0.055	0.027	0.002	0.002	0.002	0.002	0.001
Glen Oley	0.308	0.006	0.006	0.007	0.006	0.007	0.008

APPRAISAL PROCEDURES AND RESULTS

The purpose of this appraisal of Exeter Township, Pennsylvania's wastewater system is the determination of the fair market value of the wastewater's property plant and equipment as of January 1, 2018. The report was prepared based on the 2018-2019 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes (PS CS) Section 1329: Valuation of acquired water and wastewater systems, collectively referred to as Act 12 of the Pennsylvania legislator's 2016 legislative session (Act 12). The intended users of this appraisal are Pennsylvania-American Water Company and Pennsylvania Public Utility Commission.

The value established in this appraisal was based on the definition of Market Value as:

"The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress." The Appraisal of Real Estate, 14th Edition, page 58.

In conducting this appraisal, we utilized several sources of data:

- Annual (year-end) Exeter Township, Pennsylvania wastewater operational financial statements cover the period 2010 through 2017.
- The Gannett Fleming Valuation and Rate Consultants Engineer's Assessment of Exeter, Pennsylvania wastewater facilities' inventory at August 2018.
- The Handy-Whitman (water industry) Index of Public Utilities Construction Costs for northeastern United States, AUS Consultant General Plant Cost Indexes for the period 1946 through January 1, 2018, and various cost indexes published by the United States Bureau of Labor Statistics (US BLS).

We conducted interviews and discussions with Pennsylvania-American Water Company personnel.

In preparing this fair market value appraisal of the Exeter's wastewater system's property, plant and equipment, and its operations; the cost, income, and market approaches to value were considered. Primary reliance was placed on the cost approach for the property, plant and equipment, with the income approach and market approaches being utilized to confirm the overall value of the wastewater system's operation. Detailed explanation of each approach to value is included below.

Cost Approach - The philosophy in the cost approach to value is that the maximum value of a property is established by the cost to acquire or build a similar property. In this appraisal, the cost approach to value was analyzed using reproduction/replacement cost approach.

Reproduction cost and replacement cost are defined as:

Reproduction cost – “The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the [property] being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, super-adequacies, and obsolescence of the subject [property].”⁹

Replacement cost – “The estimated cost to construct, at current prices as of the effective appraisal date, a substitute for the [property] being appraised using modern materials and current standards, design and layout.”¹⁰

In the wastewater industry the property's reproduction costs and replacement costs are quite similar; therefore, the property's cost new was determined based on its replacement cost new.

The trended original cost method was utilized in preparing the replacement cost new. “Trending is a method of estimating a property's replacement cost new in which an *index* or *trend factor* is applied to the property's *historical cost* to convert the known cost into

⁹ The Appraisal of Real Estate, 13th Edition. Page 385

¹⁰ *ibid*

an indication of current cost. Simply put, trending reflects the movement of price over time.”¹¹ In the trended original cost method, Exeter’s investment in wastewater plant and equipment is restated to costs reflective of the appraisal date, by the application of cost trends to the property’s original investment. AUS Consultants utilized the Engineer’s Assessment performed by Gannett Fleming Valuation and Rate Consultants, LC (Engineer’s Assessment tab) as the starting point of the Cost Approach. Utilizing the Engineer’s Assessment of Exeter’s original cost in property, plant and equipment AUS Consultants developed the plant’s depreciated original cost and the replacement cost new less depreciation at January 1, 2018 (Cost Approach tab).

Reproduction Cost New - The cost trends are applied to each of the various investment categories (plant accounts) by original year of placement for that investment. The cost indexes used in these studies were the Handy-Whitman Index of Public Utility Construction Costs for the water industry of the northeastern region of the United States, AUS Consultants of General Plant Indexes, and various United States Bureau of Labor Statistics (US BLS) indexes.

¹¹ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition. Page 59

Pennsylvania-American Water Company
 Eastern Wastewater System
 Wastewater System
 Investor-Owned Utility
 January 1, 2018

(1)	(2)	(3a)	(3b)	(3c)	(3d)	(3e)	(4a)	(4)	(5)
Account Number	Description	Costing Parameters	Table	Line Reference	Lookup	Reproduction to Replacement Cost Factor	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence
		Index Series				AUS Input		years	years
	Land & Land Rights								
	Non-Depreciable								
	Depreciable								
	353.00 Land & Land Rights								
353.10	Land & Land Rights	USBLS	PP1	3	USBLS3	1.000	Non-Depr	0	0%
353.20	Land & Land Rights - Collection	USBLS	PP1	3	USBLS1	1.000	Non-Depr	0	0%
353.30	Land & Land Rights - Pumping	USBLS	PP1	1	USBLS1	1.000	Non-Depr	0	0%
353.40	Land & Land Rights - Treatment	USBLS	PP1	1	USBLS1	1.000	Non-Depr	0	0%
	354.00 Structures & Improvements								
354.30	Structures & Improvements - Pumping	HW	W-1	8	HWW-18	1.000	R4.0	45	0%
354.40	Structures & Improvements - Treatment	HW	W-1	15	HWW-115	1.000	R4.0	55	0%
	355.00 Generating Equipment								
355.30	Generating Equipment - Pumping	USBLS	PP1	4	USBLS4	1.000	R3.0	35	0%
	360.00 Mains Force								
360.21	Collection Sewers - Force - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
360.211	Collection Sewers - Force - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	60	0%
360.213	Collection Sewers - Force - Mains - DI	HW	W-1	35	HWW-135	1.000	R3.0	60	0%
360.23	Collection Sewers - Force - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	65	0%
360.31	Air Release	HW	W-1	44	HWW-144	1.000	R3.0	45	0%
360.41	Valves	HW	W-1	44	HWW-144	1.000	R3.0	45	0%
	361.00 Mains Gravity								
361.12	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
361.21	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
361.211	Collection Sewers - Gravity - Mains - PVC	HW	W-1	38	HWW-138	1.000	R3.0	60	0%
361.212	Collection Sewers - Gravity - Mains - VCP	HW	W-1	36	HWW-136	1.000	R3.0	60	0%
361.213	Collection Sewers - Gravity - Mains - DI	HW	W-1	35	HWW-135	1.000	R3.0	60	0%
361.22	Collection Sewers - Gravity - Mains Relining	HW	W-1	44	HWW-144	0.100	R3.0	60	0%
361.23	Collection Sewers - Gravity - Manholes	HW	W-1	45	HWW-145	1.000	R3.0	60	0%
361.24	Collection Sewers - Gravity - Manholes Repairs	HW	W-1	45	HWW-145	0.100	R3.0	60	0%
361.71	Collection Sewers - Gravity - Mains	HW	W-1	44	HWW-144	1.000	R3.0	60	0%
	363.00 Service Laterals								
363.20	Service Laterals	HW	W-1	38	HWW-139	1.000	R3.0	55	0%
	364.00 Flow Measuring Devices								
364.20	Flow Measuring Devices	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
365.20	Flow Measuring Installations	HW	W-1	40	HWW-140	1.000	R3.0	35	0%
	371.00 Pumping Equipment								
371.30	Pumping Equipment	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
371.32	Pumping Equipment - Grinder	HW	W-1	9	HWW-19	1.000	R3.0	35	0%
	380.00 Treatment and Disposal Equipment								
380.40	Treatment and Disposal Equipment	HW	W-1	17	HWW-117	1.000	R3.0	45	0%
	390.00 General Plant								
390.70	Office Furniture and Equipment	AUS	T-1	15	AUST-115	1.000	R3.0	12	0%
391.70	Transportation Equipment	AUS	T-1	4	AUST-14	1.000	R3.0	10	0%
392.70	Stores Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0
393.70	Tools, Shop & Garage Equipment	AUS	T-1	7	AUST-17	1.000	R3.0	35	0%
394.70	Laboratory Equipment	AUS	T-1	7	AUST-17	1.000	R4.0	20	0%
395.70	Power Operated Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	15	0%
396.70	Communications Equipment	USBLS	PP1	2	USBLS2	1.000	R3.0	12	0%
397.70	Miscellaneous Equipment	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
398.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%
399.70	Not Used	AUS	T-1	8	AUST-18	1.000	R3.0	20	0%

The following table presents the development of the cost approach for a portion of account 361 Collection Mains (this example will be used to describe the entire cost approach:

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
361 211	26,111	26,111	26,111	26,111	26,111	26,111	26,111	26,111	26,111	26,111	26,111	26,111
361 213	95,131	95,131	95,131	95,131	95,131	95,131	95,131	95,131	95,131	95,131	95,131	95,131
361 214	91,151	91,151	91,151	91,151	91,151	91,151	91,151	91,151	91,151	91,151	91,151	91,151
361 215	60,171	60,171	60,171	60,171	60,171	60,171	60,171	60,171	60,171	60,171	60,171	60,171
361 216	90,211	90,211	90,211	90,211	90,211	90,211	90,211	90,211	90,211	90,211	90,211	90,211
361 21 Total	361,211	361,211	361,211	361,211	361,211	361,211	361,211	361,211	361,211	361,211	361,211	361,211

Using the trended original cost method, Exeter’s investment in this example of account 361.211 Collection Mains – Force of \$724,186 was determined to have a reproduction cost new of \$1,440,744. When the trended cost method is applied to each of Exeter’s investment in plant, property and equipment of \$68,404,345 was determined to have a reproduction cost new of \$209,865,528.

Replacement Cost New - In the wastewater industry the property’s reproduction costs and replacement costs are quite similar; therefore, the property’s cost new was determined based on its replacement cost new. In this instance the reproduction costs and replacement costs are the same hence I used reproduction and replacement cost interchangeably. The exception to this was the investment associated with the mains relining (361.22) and the manhole repairs (361.24) wherein the replacement cost as estimated at 10% of their reproduction cost. The replacement cost new was determined to be \$209,693,218.

Replacement Cost New Less Depreciation - The replacement cost described above reflects the cost of new property; however, the Exeter’s wastewater system property is not new and has experienced normal depreciation and potentially functional and or economic obsolescence. These various forms of depreciation are defined as follows:

Normal depreciation/deterioration, akin to physical deterioration, is “loss in value caused by wear, tear, age and use.”¹²

¹² The Dictionary of Real Estate Appraisal, 4th Edition

Functional obsolescence is “the loss in value or usefulness of a property caused by inefficiencies or inadequacies of the property itself, when compared to a more efficient of less costly replacement property that new technology has developed.”¹³

Economic, or external, obsolescence is defined as “A loss in value caused by factors outside a property”¹⁴ and is most often indicated by insufficient earning.

Based on our experience in regard to: water and wastewater depreciation studies and our analysis of Exeter’s wastewater system operating performance: Exeter’s property experiences normal depreciation but not any significant functional or economic obsolescence (see Income Approach).

In order to ascertain the service lives of the various types of Exeter’s property, plant and equipment, we considered AUS Consultants’ past water and wastewater depreciation studies, interviews with Pennsylvania-American’s personnel, and documents provided by Exeter. Through our experience and the above described interviews, the following normal depreciation parameters of survival/retirement characteristics and service lives were determined for Exeter’s wastewater utility property:

¹³ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, Page 67.

¹⁴ The Appraisal of Real Estate, 13th Edition, page 442.

(1)	(2)	(3a)	(3b)	(3c)	(3d)	(3e)	(4a)	(4b)	(5)
Account Number	Description	Costing Parameters	Table	Line Reference	Lookup	Replacement Cost Factor	How Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence
		Index Series				AUS Input		years	years
	Non-Depreciable								
	Land & Land Rights						Non Depr		
	Depreciable								
	353.00 Land & Land Rights								
	353.10 Land & Land Rights	USBSL	PPI	3	USBSL3	1.000	Non-Depr	0	0%
	353.20 Land & Land Rights - Collection	USBSL	PPI	1	USBSL1	1.000	Non-Depr	0	0%
	353.30 Land & Land Rights - Pumping	USBSL	PPI	1	USBSL1	1.000	Non-Depr	0	0%
	353.40 Land & Land Rights - Treatment	USBSL	PPI	1	USBSL1	1.000	Non-Depr	0	0%
	354.00 Structures & Improvements								
	354.30 Structures & Improvements - Pumping	HW	W-1	8	HW-118	1.000	R-0	45	0%
	354.40 Structures & Improvements - Treatment	HW	W-1	15	HW-115	1.000	R-0	55	0%
	355.00 Generating Equipment								
	355.30 Generating Equipment - Pumping	USBSL	PP	4	USBSL4	1.000	R-0	35	0%
	355.30 Generating Equipment - Pumping								
	355.30 Generating Equipment - Pumping	USBSL	PP	4	USBSL4	1.000	R-0	35	0%
	360.00 Mains Force								
	360.21 Collection Sewers - Force - Mains	HW	W-1	44	HW-144	1.000	R-0	60	0%
	360.211 Collection Sewers - Force - Mains - PVL	HW	W-1	38	HW-138	1.000	R-0	60	0%
	360.213 Collection Sewers - Force - Mains - D	HW	W-1	35	HW-135	1.000	R-0	60	0%
	360.23 Collection Sewers - Force - Manholes	HW	W-1	45	HW-145	1.000	R-0	65	0%
	360.31 Air Release	HW	W-1	44	HW-144	1.000	R-0	45	0%
	360.41 Valves	HW	W-1	44	HW-144	1.000	R-0	45	0%
	361.00 Mains Gravity								
	361.12 Collection Sewers - Gravity - Mains	HW	W-1	44	HW-144	1.000	R-0	80	0%
	361.21 Collection Sewers - Gravity - Mains	HW	W-1	44	HW-144	1.000	R-0	80	0%
	361.211 Collection Sewers - Gravity - Mains - PVL	HW	W-1	38	HW-138	1.000	R-0	80	0%
	361.212 Collection Sewers - Gravity - Mains - VCP	HW	W-1	36	HW-136	1.000	R-0	80	0%
	361.213 Collection Sewers - Gravity - Mains - DI	HW	W-1	35	HW-135	1.000	R-0	80	0%
	361.22 Collection Sewers - Gravity - Mains Relining	HW	W-1	44	HW-144	0.100	R-0	80	0%
	361.23 Collection Sewers - Gravity - Manholes	HW	W-1	45	HW-145	1.000	R-0	80	0%
	361.24 Collection Sewers - Gravity - Manholes Repairs	HW	W-1	45	HW-145	0.100	R-0	80	0%
	361.71 Collection Sewers - Gravity - Mains	HW	W-1	44	HW-144	1.000	R-0	80	0%
	363.00 Service Laterals								
	363.20 Service Laterals	HW	W-1	39	HW-139	1.000	R-0	55	0%
	364.20 Flow Measuring Devices	HW	W-1	40	HW-140	1.000	R-0	35	0%
	364.20 Flow Measuring Devices	HW	W-1	40	HW-140	1.000	R-0	35	0%
	365.20 Flow Measuring Installations	HW	W-1	40	HW-140	1.000	R-0	35	0%
	371.70 Pumping Equipment	HW	W-1	9	HW-19	1.000	R-0	35	0%
	371.90 Pumping Equipment	HW	W-1	9	HW-19	1.000	R-0	35	0%
	371.92 Pumping Equipment - Grinder	HW	W-1	9	HW-19	1.000	R-0	35	0%
	380.00 Treatment and Disposal Equipment								
	380.40 Treatment and Disposal Equipment	HW	W-1	17	HW-117	1.000	R-0	45	0%
	390.00 General Plant								
	390.70 Office Furniture and Equipment	AUS	T-1	25	AUS-125	1.000	R-0	12	0%
	391.70 Transportation Equipment	AUS	T-1	4	AUS-14	1.000	R-0	10	0%
	392.70 Stores Equipment	AUS	T-1	7	AUS-17	1.000	R-0	35	0%
	393.70 Tools, Shop, & Garage Equipment	AUS	T-1	7	AUS-17	1.000	R-0	35	0%
	394.70 Laboratory Equipment	AUS	T-1	7	AUS-17	1.000	R-0	20	0%
	395.70 Power Operated Equipment	AUS	T-1	8	AUS-18	1.000	R-0	15	0%
	396.70 Communications Equipment	USBSL	PP	2	USBSL2	1.000	R-0	12	0%
	397.70 Miscellaneous Equipment	AUS	T-1	8	AUS-18	1.000	R-0	20	0%
	398.70 Not Used	AUS	T-1	8	AUS-18	1.000	R-0	20	0%
	399.70 Not Used	AUS	T-1	8	AUS-18	1.000	R-0	20	0%

Normal Depreciation – The extent of the depreciation in the property was evaluated using age-life depreciation techniques. In age-life depreciation, the property's depreciation or condition is estimated using the following formula:

$$\text{Depreciation (\%)} = \frac{\text{Age (years)} \times 100\%}{\text{Service Life (years)}}$$

$$\text{Condition (\%)} = \frac{\text{Remaining Life (years)} \times (100\%)}{\text{Service Life (years)}}$$

where: the property's Service Life = Age + Remaining Life

Income Approach

The income approach to value establishes the value of the property based on its economic returns. There are two generally accepted procedures in performing an income analysis: the direct capitalization of anticipated income, and the discounted cash flow procedures.

In the direct capitalization approach, anticipated earnings are capitalized directly into value using a market-required return. Exeter's wastewater operation will be moving from a municipal operation, wherein economic returns are not the primary objective of the operation to a private (investor owned) rate regulated wastewater utility operation in which economic returns are one of the objectives of the operation; therefore, the direct capitalization of earnings approach was not utilized in this appraisal.

In the discounted cash flow (DCF) approach, the property's economic returns are forecast for future periods. The cash flows (after-tax debt-free cash flows) from operations are discounted to the appraisal date using a market derived discount resulting in the DCF approach's income indicator of value. Use of the DCF approach allows the appraiser to address the property's historical operating experience and its migration, in future periods, to an operation as a rate regulated operation; thus making the DCF approach preferable.

In preparing this appraisal's DCF analysis, first the results from Exeter's wastewater utility's operations was evaluated based on an analysis of historical operating performances over the period 2010 through 2017 (Income Approach tab). In the analysis of the operating statistics such as revenues and their growth, various operating expenses those expenses were stated as function of their typical drivers (revenues, plant investment, income from operations, etc). Details provided in Income Approach tab. Using the above described analyses the results of future periods operations were forecast based on the migration of Exeter's historical operations type experience over time to operations of the Exeter's wastewater operation similar to a public investor-owned water/wastewater utility. The forecasts are detailed in the Income Approach tab.

Finally, the resultant cash flows from future period operations of the Exeter's wastewater system were discounted to the appraisal date using a discount market derived discount rate for a public investor-owned water/wastewater utility (Income Approach Tab – Cost of Capital / Required Return section). The following table presents the results of the discounted cash flow analysis:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Potential Purchaser - Investor-Owned Utility
As of January 1, 2018
Discounted Cash Flow Analysis**

Discount Rate	7.13%																
Capitalization Rate	5.67%																
(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 @ 28.28%	Capital Expenditures	Change in Working Capital	Net Cash Flow	Period Present Worth Factor (PW)	PW of CashFlow	Accumulated PW of Cashflows				
					(3)-(4)	(6)-(5)	(7) *28.28%			(3)-(4)-(8)-(9)-(10)		(11)*(12)	Sum (13)				
1	0.5	9,664,515	2,566,310	3,912,495	7,098,205	3,185,310	920,236	1,111,155	1213,881	4,980,197	0.966	4,810,870	4,810,870				
2	1.5	9,761,160	2,647,124	3,961,115	7,114,036	3,152,921	910,879	1,429,059	(5,605)	4,778,803	0.901	4,305,702	9,116,572				
3	2.5	9,858,772	2,710,555	4,010,755	7,124,217	3,117,462	900,635	1,449,037	(5,662)	4,784,207	0.841	4,023,518	13,140,090				
4	3.5	1,957,360	2,810,691	4,061,846	7,140,669	3,078,823	889,472	1,468,197	(5,718)	4,788,518	0.784	3,754,198	16,894,288				
5	4.5	11,062,670	2,905,623	4,114,421	8,147,047	4,032,626	1,165,026	1,488,038	(6,178)	5,557,511	0.732	4,068,098	20,962,386				
6	5.5	11,273,723	2,997,447	4,168,513	8,276,276	4,107,763	1,186,733	1,507,965	(12,827)	5,594,399	0.683	3,820,975	24,783,361				
7	6.5	11,499,197	3,092,260	4,283,102	8,406,937	4,123,635	1,191,318	1,750,771	(14,677)	5,477,925	0.637	3,489,438	28,272,799				
8	7.5	11,729,181	3,190,168	4,353,324	8,539,013	4,185,689	1,205,246	1,781,820	(13,139)	5,561,286	0.594	3,303,404	31,576,203				
9	8.5	12,667,515	3,291,777	4,425,889	9,376,243	4,950,354	1,430,157	1,813,467	(54,424)	6,187,043	0.554	3,427,622	35,003,825				
10	9.5	11,427,566	3,395,679	4,501,072	10,031,887	5,530,815	1,597,853	1,845,726	(14,083)	6,632,391	0.517	3,428,946	38,432,771				
11	10.5	13,696,117	3,503,505	4,578,949	10,192,632	5,613,669	1,621,787	1,878,510	(17,576)	8,707,791	0.482	3,233,155	41,665,926				
12	11.5	13,970,089	3,614,865	4,659,597	10,355,174	5,695,577	1,645,452	1,914,130	(15,887)	6,813,479	0.450	3,066,066	44,731,992				
13	12.5	15,087,642	3,729,829	4,730,149	11,357,763	6,627,614	1,914,718	1,946,107	(6,187)	7,561,564	0.420	3,175,857	47,907,849				
14	13.5	15,388,396	3,848,672	4,816,514	11,540,723	6,724,209	1,942,624	1,981,157	(17,502)	7,634,464	0.392	2,992,710	50,900,559				
15	14.5	16,312,759	3,971,376	4,905,898	12,341,383	7,495,485	2,148,112	2,016,650	(6,576)	8,230,176	0.365	3,004,014	53,904,573				
16	15.5	16,312,759	4,098,124	4,764,210	12,214,635	7,450,425	2,152,428	1,686,951	8,375,256		0.341	2,855,962	56,760,535				
17	16.5	17,291,525	4,220,050	4,836,367	13,062,475	8,226,108	2,376,523	1,710,730	(56,768)	9,031,990	0.318	2,872,173	59,632,708				
18	17.5	17,291,525	4,364,305	4,841,729	12,927,220	8,085,491	2,335,888	1,714,870		8,856,452	0.297	2,630,366	62,263,074				
19	18.5	17,291,525	4,504,038	4,847,193	12,787,487	7,940,294	2,293,951	1,759,376		8,734,160	0.277	2,419,362	64,682,436				
20 and beyond	19.5	17,393,186	4,638,405	4,923,552	13,334,701	8,411,229	2,430,004	1,784,260	140,117	9,160,834	4.550	41,680,845	106,363,321				
			70,145,348					34,357,351									
Age											19.5						
PW(Age) = 1/(1+Discount Rate) ^{Age}											0.258						
PW to Perpetuity = 1/Capitalization Rate											17.637						
PW _{20 and beyond} = PW to Perpetuity * PW Factor ₁₉											4.55						

Based on the above described discounted cash flow analysis, the Income Approach to value of the Exeter's wastewater property and its operations was determined to be \$106,363,321.

Market Approach

The market or comparable sales approach to value looks to market sales of comparable properties in order to arrive at value. In this appraisal, the market approach was addressed from a comparable sales approach using recent Pennsylvania wastewater

systems and market value to book value ratios based on investor owned water utilities reported in Value Line Investment Survey.

Market Sales – In the comparable sale market approach the sales of Pennsylvania municipal wastewater systems to investor owned water/wastewater utilities were used to insure comparability. The sale of the City of McKeesport, Pennsylvania wastewater system to Pennsylvania-American Water and the sales of New Garden Township’s sewer utility, Limerick Wastewater system and East Bradford’s wastewater collection system to Aqua Pennsylvania, Inc. were analyzed in relationship to those properties’ depreciated original cost and replacement cost new less depreciation (Market Approach tab).

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Investor Owned Utility
 As of January 1, 2018

Comparable Sales Approach

Market Sales Ratio

Description	New Garden Wastewater System	McKeesport Wastewater System	Limerick Wastewater System	East Bradford Wastewater Collection System	Simple Average / Standard Deviation	Remove Outliers Simple Average / Standard Deviation	Weighted Average	Remove Outliers Weighted Average / Standard Deviation	1.00
System Description									
Type of System	Wastewater Collection & Treatment	Wastewater Collection & Treatment	Wastewater Collection & Treatment	Wastewater Collection Only					
System Attributes									
Purchase Price	\$1,500,000 11%	\$10,000,000 10%	\$1,100,000 .8%	\$1,000,000 7%	302%		\$6,400,000	\$6,400,000	
Acquirer Date	Aqua PA	PA American	Aqua PA	Aqua PA					
Customers									
Original Cost									
Depreciated Original Cost (AUS Consultants' DCLD)	18,567,728	101,715,380	16,151,867	5,381,511			172,020,266	166,636,675	
Purchase Price to O.C.D.	1.3488	1.5601	1.6772	0.9287	1.4264	1.592	1.3614	5819	1.5819
Variance to Sample Mean	0.3626	0.1139	0.271	0.3495	2.1862	0.0276			
Variance to Wtd Mean	0.0271	0.0073	0.0658	0.0227			0.0131		
Replacement Cost New Less Depreciation (RCNLD)	30,415,110	162,102,491	66,226,756	9,716,591			246,240,258	177,001,657	
Purchase Price to RCNLD	0.1636	0.1921	0.4774	0.5473	0.6423	0.9426	0.9384	2.9516	0.9516
Variance to Sample Mean	0.1213	0.1456	0.0301	0.301	0.1193				
Variance to Wtd Mean	0.0152	0.0513	0.066	0.3871	0.207	0.0674		0.0244	

Financial Market Ratios – In the market approach based on market financial ratios were based on market data of companies (nine) in the water industry as reported in Value Line Investment Surveys (January 2018) were analyzed. In the analysis, the companies’ stock (market) and debt (book) per share are compared as a ratio to the book value per share.

Pennsylvania American Water Company
Enter Wastewater System
Wastewater System
Investor-Owned Utility
January 1, 2018

Comparable Sales Approach

Financial Data¹

	Industry Averages	American R. Acqua Averages	American States Water	American Water	Acqua America	California Water	Connecticut Water	Middlesex Water	SPW Corp	York
Price per Share			19.23	69.05	31.19	26.99	48.81	19.05	36.41	29.87
Book Value per Share			12.77	38.25	9.78	13.41	20.02	12.74	18.83	8.52
Market to Book Equity Ratio			1.37	1.98	3.21	1.98	2.19	2.44	1.91	3.51
Minimum	1.93	2.44								
Mean	2.00	2.875			2.44	3.21				
Standard Deviation	0.36	0.385								
Weighted Market to Debt Ratio	2.61		5,396.12	46,004.33	23,553.34	4,614.75	2,336.09	1,383.17	2,131.09	1,649.47
Median	2.44	2.825								
Maximum	3.51	3.71								
Debt (Total) \$ millions			325.8	5,544.0	1,795.9	552.3	180.5	344.9	418.9	87.3
Outstanding Shares (millions)			16.50	178.28	176.54	47.80	20.02	16.23	18.83	12.81
Debt per share			8.93	18.73	10.17	11.54	9.02	8.93	12.25	5.81
Equity (Total) \$ millions			1,133.80	12,310.21	5,341.58	1,273.13	877.08	503.94	685.60	162.63
Total Capital (Debt + Equity)			1,757.70	18,854.21	7,337.49	1,825.63	1,057.58	648.84	1,104.50	488.93
			0.95	0.57	0.22	0.06	0.03	0.02	0.03	0.02
Market Value per Share (Equity/Debt)			48.16	105.76	41.36	58.13	52.83	49.98	58.08	16.08
Book Value per Share (Equity/Debt)			23.7	64.96	19.95	24.95	29.14	21.67	41.08	15.33
Market to Book (Total Capital) Ratio			2.12	1.63	2.08	1.53	1.82	1.84	1.41	2.39
Minimum	1.43	1.63								
Mean	1.87	1.855			1.64	2.08				
Standard Deviation	0.32	0.225								
Weighted Market to Book (Debt/Equity) Ratio	1.77		1,902.08	30,732.40	15,261.98	2,753.21	1,424.79	1,191.87	1,579.44	1,173.14
Variance to Weighted Mean	0.0817		0.45	(0.14)	0.11	(0.24)	0.05	0.02	(0.34)	0.62
Median	1.83	1.855								
Maximum	2.39	2.08								

1. Value Line Investment Survey January 1, 2018

The following table summarizes both the comparable sales and financial market ratio analysis and the Market Approach conclusion of this appraisal:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Market Approach Summary

Comparable Sales	Book Ratios	Purchase Price to Depreciated Original Cost (Book Value)	Indicated Market Value
Depreciated Original Cost (AUS Consultants) OCLD	40,057,633.92	1.5819	63,367,171
Replacement Cost New less Depreciation RCNLD	99,589,818.55	0.9516	94,769,671
Average			79,068,421
Use (RCNLD)			94,769,671
	Market Value per Share to Book Value per Share		
Financial Markets			
Market to Book (equity)	2.61		
Market to Book (equity and debt)	1.77		
Use (equity and debt)	1.77		
	Investor Purchaser Owned Value to Depreciated Original Cost (Book Value)		
Market Conclusion			
	Exeter Wastewater System		
Exeter Wastewater System AUS Depreciated Original Cost	40,057,634	1.77	70,902,012
Market Value			Indicated Value \$s
Minimum			63,367,171
Mean			76,346,285
Median			70,902,012
Maximum			94,769,671
Use (RCNLD)			94,769,671

The market approach conclusion of this appraisal was determined to be \$94,769,671.

Cost Approach Revisited – Before concluding this appraisal’s fair market value, the preliminary cost approach conclusion of \$99,589,819 needs to be evaluated to determine if external obsolescence exists in the preliminary reproduction cost new less depreciation conclusion. The appraisal literature, in regards to developing a cost approach states:

“The last step in the implementation of the cost approach is to estimate *economic obsolescence*. Economic obsolescence (sometimes called “external obsolescence”) has been previously defined as the loss in value or usefulness of a property caused by factors external to the asset. These factors include increased cost of raw materials, labor, utilities (without an offsetting increase in product price); reduced demand for the product; increased competition; environmental or other regulations; or similar factors.

The difficulty in measuring the full effect of economic obsolescence is one of the weaknesses of the cost approach. Because economic obsolescence is usually a function of outside influences that affect an entire business (i.e., all tangible and intangible assets) rather than individual assets or isolated groups of assets, it is sometimes measured using the income approach or by using the income approach to help identify the existence of economic influences on value. However, the cost approach can be used to measure some forms of economic obsolescence.”¹⁵

The above described income approach value conclusion of \$106,363,321 for the Exeter’s future wastewater system and the market approach conclusion of \$94,769,671 compared to the cost approach conclusion of \$99,589,819 indicates no significant external obsolescence exists in the cost approach conclusion of \$99,589,819. Applying 0% external obsolescence to our example account of 361 Collection Mains Gravity the fair market value was determined as follow:

¹⁵ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, pp. 96-97.

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Investor-Owned Utility
 As of January 1, 2018

(0)	(0.5)	(1)	(6)	(7)	(8)
Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
Input		Input	Calculation	Input	Calculation
Exeter Data	Exeter Data	Exeter Data	RCNLD	Economic Obsolescence Analysis	FMV
Account	Description	Year	Prelim RCNLD	EO%	(#) * [1.00-(7)]
360.211	COLLECTION SEWERS - FORCE - MAINS	1980	17,656.23	0.00%	17,656.23
360.213	COLLECTION SEWERS - FORCE - MAINS	1985	132,832.01	0.00%	132,832.01
360.213	COLLECTION SEWERS - FORCE - MAINS	1985	506,472.25	0.00%	506,472.25
360.211	COLLECTION SEWERS - FORCE - MAINS	2005	11,846.82	0.00%	11,846.82
360.211	COLLECTION SEWERS - FORCE - MAINS	2005	301,681.72	0.00%	301,681.72
360.21 Total	COLLECTION SEWERS - FORCE - MAINS		970,489.03		970,489.03

Therefore, the cost approach conclusion of \$99,589,819 can be considered the final cost approach conclusion as follows:

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Investor-Owned Utility
 As of January 1, 2018

Schedule of Depreciated, Average Residual Value, Replacement Cost and Depreciated Replacement Cost

Account No.	Specialty	Original Cost	Accumulated Depreciation	Net Book Value	Replacement Cost Factor	Replacement Cost	Age	Weighted Age	Weighted Replacement Cost	Age	Average Annual Depreciation	Depreciated Replacement Cost	Age	Weighted Age	Weighted Depreciated Replacement Cost
175.01	Land	23,568.74	0.00	23,568.74	1.00	23,568.74	1.00	1.00	23,568.74	1.00	0.00	23,568.74	1.00	1.00	23,568.74
175.02	Land	4,328.44	0.00	4,328.44	1.00	4,328.44	1.00	1.00	4,328.44	1.00	0.00	4,328.44	1.00	1.00	4,328.44
175.03	Land	75,731.15	0.00	75,731.15	1.00	75,731.15	1.00	1.00	75,731.15	1.00	0.00	75,731.15	1.00	1.00	75,731.15
175.04	Land	2,000.00	0.00	2,000.00	1.00	2,000.00	1.00	1.00	2,000.00	1.00	0.00	2,000.00	1.00	1.00	2,000.00
175.05	Land	11,448.47	0.00	11,448.47	1.00	11,448.47	1.00	1.00	11,448.47	1.00	0.00	11,448.47	1.00	1.00	11,448.47
175.06	Land	49,748.40	0.00	49,748.40	1.00	49,748.40	1.00	1.00	49,748.40	1.00	0.00	49,748.40	1.00	1.00	49,748.40
175.07	Land	14,138.15	0.00	14,138.15	1.00	14,138.15	1.00	1.00	14,138.15	1.00	0.00	14,138.15	1.00	1.00	14,138.15
175.08	Land	15,544.99	0.00	15,544.99	1.00	15,544.99	1.00	1.00	15,544.99	1.00	0.00	15,544.99	1.00	1.00	15,544.99
175.09	Land	18,291.92	0.00	18,291.92	1.00	18,291.92	1.00	1.00	18,291.92	1.00	0.00	18,291.92	1.00	1.00	18,291.92
175.10	Land	11,918.82	0.00	11,918.82	1.00	11,918.82	1.00	1.00	11,918.82	1.00	0.00	11,918.82	1.00	1.00	11,918.82
175.11	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.12	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.13	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.14	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.15	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.16	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.17	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.18	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.19	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.20	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.21	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.22	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.23	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.24	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.25	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.26	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.27	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.28	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.29	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.30	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.31	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.32	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.33	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.34	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.35	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.36	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.37	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.38	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.39	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.40	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.41	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.42	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.43	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.44	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.45	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.46	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.47	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.48	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.49	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.50	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.51	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.52	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.53	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.54	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.55	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.56	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	11,138.78	1.00	1.00	11,138.78
175.57	Land	11,138.78	0.00	11,138.78	1.00	11,138.78	1.00	1.00	11,138.78	1.00	0.00	1			

Value Conclusion

The Fair Market Value of Exeter's wastewater property, plant and equipment and its operation was determined to be \$101,817,000 as follows:

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Fair Market Value Appraisal

Appraisal Approach	Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach			
Depreciated Replacement Cost New	\$ 99,589,819		
Cost Approach Conclusion	99,589,819	50%	49,794,909
Income Approach			
	106,363,321		
Income Approach Conclusion	106,363,321	40%	42,545,328
Market Approach			
Market Approach Conclusion	94,769,671	10%	9,476,967
Appraisal Conclusion	\$ 101,817,204	100%	101,817,204
Conclusion (cost approach)	\$ 99,589,819		

As the purpose of this appraisal was to fulfill the requirements of Section 1329 of the PA CS in the establishment of value for rate making of Exeter's wastewater property, plant

and equipment the cost approach conclusion of \$99,589,819 is consistent with the purpose of the appraisal. This cost approach conclusion is detailed (Cost Approach tab of this report). As the cost approach work papers details our value conclusion by National Association of Regulatory Utility Commissioners' (NARUC) Uniform System of Accounts (USOA) for the wastewater industry account classifications and the installation year of the property this detail can be used to establish the booked value for future accounting and rate making.

**Compliance with Uniform Standards of Professional
Appraisal Practice (USPAP) 2018-2019
Fulfillment of Requirements for a Personal Property Appraisal
and Report**

- State the identity of the client and any intended users, by name or type:
Pennsylvania-American Water Company and the Pennsylvania Public Utility Commission
- State the intended use of the appraisal
To establish the Fair Market Value of The Township of Exeter, PA's Wastewater System
- Describe information sufficient to identify the property, real, personal, and intangible, involved in the appraisal, including the physical and economic property characteristics relevant to the assignment.

The Township of Exeter, PA's wastewater treatment and collection property consists of collection mains and laterals of various sizes and types. The property is in good condition based on physical inspections and reviews or operating statements. The property is an operating wastewater system the economics of which were analyzed based on seven years of operating financials which were incorporated in to the income approach to value analysis in this appraisal.

- State the real property interests appraised
Exeter owns land on several parcels. The land is used primarily for its treatment facility and various pump stations.
- State the type and definition of value and cite the source of the definition, including whether the opinion of value is in terms of cash or of financing terms equivalent to cash, or based on non-market financing or financing with unusual conditions or incentives
 - *Market Value definition:*
"The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress." The Appraisal of Real Estate, 14th Edition, page 58.
- State the effective date of the appraisal and the date of the report
The effective date of the appraisal is January 1, 2018 and the appraisal report date is September 1, 2018.
- Describe sufficient information to disclose to the client and any other intended users of the appraisal the scope of work used to develop the appraisal

The appraisal considered all three approaches to value: the cost, income and market. Briefly, the scopes of work for each are as follows:

Cost Approach – The cost approach utilized the trended cost method utilizing the investment inventory developed by AUS Consultants from its depreciated original cost study. The Handy Whitman Index of Public Utility Construction Costs for the water industry were used in the trending. Depreciation was assessed based on straight line age-life depreciation method based on service life expectation for each of the various account categories.

Income Approach – The income approach utilized the discounted cash flow (DCF) method; the DCF method facilitates the development of cash flows from operations as the property migrates from municipal operation to a regulated investor owned operation. Exeter's operating experience was analyzed (2010-2017) in order to estimate the initial cash flows. The operations were forecast for 19 periods in the future and a 20th period which is intended to reflect operation beyond that time. The discount rate was developed based on market debt and equity rates at the appraisal date.

Market Approach – The market approach was developed based on market comparable sales of Pennsylvania wastewater properties and market to book ratios developed for the water industry based on information published by Value Line Investment Surveys at the appraisal date.

Valuation Approaches Reconciliation - The appraisal conclusion was based on reconciliation of each of the approaches and the intended purpose of the appraisal.

- Clearly and conspicuously:
 - State all extraordinary assumptions and hypothetical conditions;

There were no extraordinary assumptions or hypothetical conditions in this appraisal.

- State that their use might have affected the assignment results

Not applicable.

- Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment

Not applicable.

- Describe the information analyzed, the appraisal procedures followed, and the reasoning that supports the analyses, opinions, and conclusions

See scope of work above.

- State the use of the real estate existing as of the date of value and the use of the real estate reflected in the appraisal – when reporting an opinion of market value, describe the support and rationale for the appraiser's opinion of the highest and best use of the real estate

The real estate is used for Exeter's wastewater treatment plants and various pumping stations.

- State and explain any permitted departures from specific requirements of STANDARD 1 and the reason for excluding any of the usual valuation approaches. The appraisal then becomes a limited appraisal – a limited appraisal report must contain a prominent section that clearly identifies the extent of the appraisal process performed and the departures taken

No departures for Standard 1 were made.

- Include a signed certification in accordance with Standards Rule 2-3

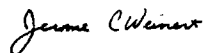
Contained in Narrative Report.

AUS Consultants, Valuation and Depreciation Services Group certify that, to the best of its knowledge and belief:

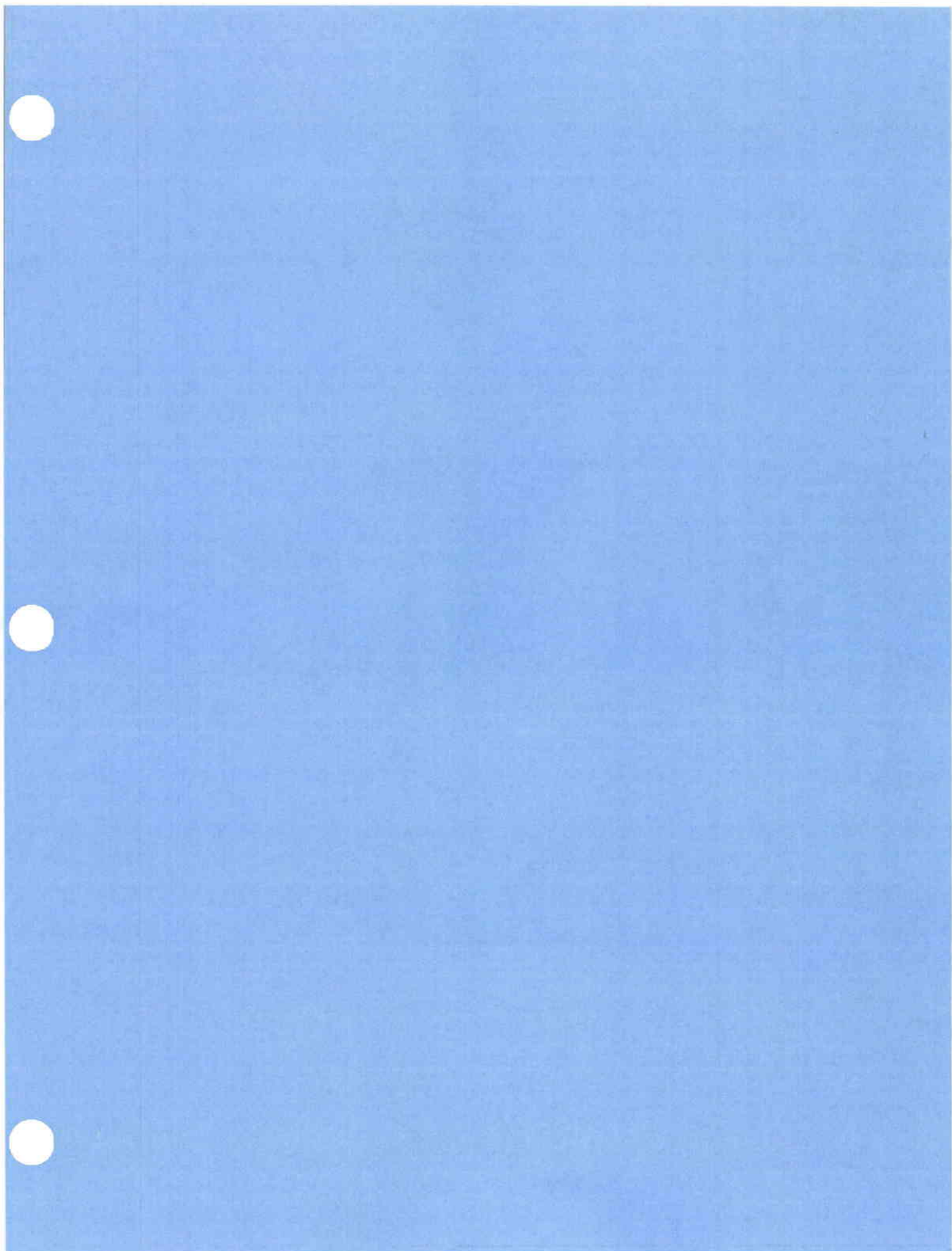
- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- AUS Consultants, Valuation and Depreciation Services Group has performed an appraisal of Exeter, PA's Wastewater System previously in the last three year.
- AUS Consultants, Valuation and Depreciation Services Group, nor its professional staff has any present or prospective interest in the property that is the subject of this report, and has no interest or bias with respect to the parties involved.
- We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- Our engagement in this assignment is not contingent upon developing or reporting predetermined results.
- Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice 2018-2019.
- The signers of this report (David Sheffer) have made a personal inspection of the property that is the subject of this report.
- All individuals who participated in the preparation of this report and who are Senior Members of the American Society of Appraisers are recertified as required by the mandatory recertification as set out in the constitution by-laws and administrative rules of the American Society of Appraisers.
- Individuals providing significant appraisal assistance to the person signing this certification include: David A. Sheffer, Principal, AUS Consultants, Valuation and Depreciation Services Group and Gannett Fleming Valuation and Rate Consultants, LC's Engineers Assessment.

AUS Consultants, Valuation and Depreciation Services Group

By:



Jerome C. Weinert, ASA, Wisconsin P.E., CDP



Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Valuation Summary

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**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Fair Market Value Appraisal

Appraisal Approach	Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach			
Depreciated Replacement Cost New	\$ 99,589,819		
Cost Approach Conclusion	99,589,819	50%	49,794,909
Income Approach			
	106,363,321		
Income Approach Conclusion	106,363,321	40%	42,545,328
Market Approach			
Market Approach Conclusion	94,769,671	10%	9,476,967
Appraisal Conclusion	\$ 101,817,204	100%	101,817,204
Conclusion (cost approach)	\$ 99,589,819		

**Pennsylvania-American Water Company
 Eastern Waterworks System
 Eastern Township, Berks County, Pennsylvania
 Waterworks System
 Investor-Owned Utility**

**Summary of Original Cost, Average Service Life/Curve, Replacement Cost and Depreciated Replacement Cost
 As of January 1, 2018**

Account No.	Description	Original Cost	Cost Index	Cost Translator	Reproduction to Replacement		Replacement Cost New	Average Age	Weighted R/N Age	Curve Survival Curve and Life	Average Normal Remaining Life	Weighted R/N Average Normal Remaining Life	Average Total Life Expectancy	Weighted R/N Average Total Life Expectancy	Condition	Depreciated Replacement Cost	Economic Obsolescence	Fair Market Value
					Reproduction Cost New	Replacement Cost Factor												
353.00	Land & Land Rights - Collection	356,068.94	US55.1	7.23	279,404.75	1.000	749,904.75	42.63	23,434,745.04	NR - Dep				100.00%	749,904.75	0.0%	749,904.75	
353.01	Land & Land Rights - Pumping	63,244.14	US55.1	1.58	99,936.18	1.000	99,936.18	77.17	2,215,422.00	NR - Dep				100.00%	99,936.18	0.00%	99,936.18	
353.40	Land & Land Rights - Treatment	715,532.85	US55.1	3.076	2,281,697.09	1.000	39,276,407.09	39.72	39,276,407.09	NR - New					2,281,697.09	0.00%	2,281,697.09	
354.00	Structures & Improvements - Pumping	1,066,471.00	HW55.1	8	7,681,008.75	1.000	2,361,008.75	23.08	20,539,151.00	R3 - 65 yrs	22.70	49,513,519.00	45.79	99,872,670.00	49.64%	1,082,243.87	0.00%	1,082,243.87
354.40	Structures & Improvements - Treatment	36,457,669.14	HW55.1	3.057	111,449,475.70	1.000	111,449,475.70	39.99	3,076,197,065.00	R4 - 55 yrs	24.27	2,998,338,995.00	57.20	6,375,278,059.00	2.99%	47,912,068.89	0.00%	47,912,068.89
355.00	Flow Measuring Equipment - Pumping	46,258.60	US55.1	1.577	71,502.06	1.000	71,502.06	24.50	1,753,270.00	R3 - 30 yrs	15.49	958,210.00	37.85	2,711,487.00	35.94%	25,289.42	0.00%	25,289.42
360.21	Collection Sewers - Force Mains	729,185.14	HW55.1	1.989	1,448,745.93	1.000	1,448,745.93	19.87	28,840,557.00	R3 - 60 yrs	40.74	58,062,345.00	60.79	87,582,982.00	67.36%	476,489.09	0.00%	476,489.09
360.25	Collection Sewers - Force Manholes	165,000.00	HW55.1	1.643	272,146.44	1.000	272,146.44	19.48	3,045,248.00	R3 - 60 yrs	46.25	12,316,234.00	65.86	17,946,763.00	70.42%	163,933.42	0.00%	163,933.42
361.21	Collection Sewers - Gravity Mains	15,860,350.57	HW55.1	3.766	50,172,506.70	1.000	50,172,506.70	38.45	1,278,923,177.00	R3 - 60 yrs	45.03	2,259,336,879.00	83.48	4,188,280,736.00	54.35%	27,261,925.87	0.00%	27,261,925.87
361.22	Collection Sewers - Gravity Manholes	183,418.00	HW55.1	1.17	214,024.12	1.000	214,024.12	37.71	1,667,375.00	R3 - 60 yrs	70.90	1,448,653.00	80.11	1,448,653.00	84.54%	6,603.60	0.0%	6,603.60
361.23	Collection Sewers - Gravity Manholes	4,102,596.00	HW55.1	7.407	11,949,309.14	1.000	11,949,309.14	36.87	440,546,820.00	R3 - 60 yrs	46.36	553,983,846.00	83.23	994,525,455.00	53.13%	6,704,939.15	0.0%	6,704,939.15
361.24	Collection Sewers - Gravity Manholes Repairs	10,179.00	HW55.1	1.044	10,629.96	1.000	10,629.96	2.50	2,857.00	R1 - 60 yrs	77.44	82,507.00	80.11	85,164.00	9.99%	1,029.54	0.00%	1,029.54
362.00	Service laterals	8,177,147.46	HW55.1	3.976	27,369,203.97	1.000	27,369,203.97	35.96	984,783,087.00	R3 - 50 yrs	23.94	6,118,838,959.00	59.89	11,839,168,161.00	41.12%	11,252,486.31	0.00%	11,252,486.31
362.20	Flow Measuring Devices	28,269.94	HW55.1	1.424	40,090.41	1.000	40,090.41	12.75	511,205.00	R3 - 30 yrs	22.40	934,139.00	36.05	1,440,403.00	65.35%	28,138.65	0.00%	28,138.65
363.00	Flow Measuring Installations	95,697.64	HW55.1	2.283	218,670.40	1.000	218,670.40	26.96	3,548,706.00	R3 - 30 yrs	11.97	1,862,112.00	38.42	9,877,076.00	31.03%	76,339.76	0.00%	76,339.76
37.00	Pumping Equipment - Force Mains	186,138.64	HW55.1	2.29	424,859.84	1.000	424,859.84	18.15	1,833,409.41	R3 - 35 yrs	18.78	1,146,775.00	36.94	14,022,979.00	51.60%	196,073.11	0.00%	196,073.11
371.31	Pumping Equipment - Force Mains	11,589.84	HW55.1	2.476	28,425.00	1.000	28,425.00	20.20	2,894,167.00	R3 - 35 yrs	17.06	2,443,056.00	37.26	5,837,723.00	45.43%	88,506.40	0.00%	88,506.40
380.00	Treatment and disposal Equipment	515,491.49	AUST-11	1.117	575,786.83	1.000	575,786.83	6.68	2,119,510.00	R3 - 45 yr	41.45	2,809,188.17	45.03	25,928,500.00	91.83%	528,742.73	0.00%	528,742.73
390.70	Office Furniture and Equipment	89,011.30	AUST-11	1.026	91,282.84	1.000	91,282.84	3.66	335,815.00	R3 - 17 yrs	8.50	775,577.00	12.28	1,171,393.00	89.85%	64,799.45	0.00%	64,799.45
391.70	Transportation Equipment	24,623.01	AUST-11	1.121	27,609.11	1.000	27,609.11	14.93	117,158.00	R3 - 10 yrs	0.90	24,774.00	35.82	84,882.00	81.66%	2,336.52	0.00%	2,336.52
393.70	Tools Shop & Garage Equipment	42,078.30	AUST-11	1.134	47,656.46	1.000	47,656.46	7.98	380,601.00	R3 - 35 yrs	27.39	1,306,258.00	35.37	1,686,850.00	77.66%	37,023.29	0.00%	37,023.29
394.70	Laboratory Equipment	80,816.57	AUST-11	1.14	96,149.82	1.000	96,149.82	9.74	936,745.00	R3 - 40 yrs	11.05	1,062,375.00	20.79	1,999,109.00	53.53%	51,524.34	0.00%	51,524.34
395.70	Control Operated Equipment	4,946.00	US55.1	1.979	9,817.64	1.000	9,817.64	0.50	25,479.00	R3 - 32 yrs	6.06	23,007.00	12.58	43,136.00	48.25%	1,847.57	0.00%	1,847.57
397.70	Miscellaneous Equipment	4,170.70	AUST-11	1.014	4,231.81	1.000	4,231.81	7.80	35,867.00	R3 - 20 yrs	17.63	59,045.00	20.63	94,922.00	63.04%	2,900.82	0.00%	2,900.82
TOTAL PLANT		\$ 68,434,344		3.038	\$ 207,805,528	0.999	\$ 263,693,218	34.59	\$ 7,754,247,395		30.16	\$ 6,330,472,667	64.16	\$ 13,168,246,728	47.45%	\$ 99,589,819	0.00%	\$ 99,589,819

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Potential Purchaser: Investor-Owned Utility
As of January 1, 2018
Discounted Cash Flow Analysis**

Discount Rate			7.19%											
Capitalization Rate			5.67%											
(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	9,664,515	2,566,310	3,912,895	7,098,205	3,185,310	920,236	1,421,155	(213,363)	4,980,197	0.966	4,810,870	4,810,870	
2	1.5	9,761,000	2,647,124	3,981,115	7,114,036	3,152,921	910,879	1,429,959	(5,605)	4,778,803	0.901	4,305,702	9,116,572	
3	2.5	9,858,772	2,730,555	4,010,755	7,128,217	3,117,462	900,635	1,449,037	(5,667)	4,784,207	0.841	4,023,518	13,140,090	
4	3.5	9,957,360	2,816,691	4,061,846	7,140,669	3,078,823	889,472	1,468,397	(5,718)	4,788,518	0.784	3,754,198	16,894,288	
5	4.5	11,052,670	2,905,623	4,114,421	8,147,047	4,032,626	1,165,026	1,488,038	163,528	5,557,511	0.732	4,068,098	20,962,386	
6	5.5	11,773,723	2,997,447	4,168,513	8,276,276	4,107,763	1,186,733	1,507,965	112,621	5,594,399	0.683	3,820,975	24,783,361	
7	6.5	11,499,297	3,092,260	4,283,372	8,406,937	4,123,635	1,191,318	1,520,772	(13,077)	5,477,925	0.637	3,489,438	28,272,799	
8	7.5	11,729,181	3,196,168	4,353,324	8,539,013	4,185,689	1,209,246	1,781,820	(13,339)	5,561,286	0.594	3,303,404	31,576,203	
9	8.5	12,667,515	3,291,772	4,425,889	9,376,243	4,950,354	1,430,157	1,813,467	(54,324)	6,187,043	0.554	3,427,622	35,003,825	
10	9.5	12,327,966	3,395,679	4,501,002	10,031,887	5,530,815	1,597,853	1,845,726	(44,083)	6,632,391	0.517	3,428,946	38,432,771	
11	10.5	13,626,117	3,514,595	4,578,349	10,192,612	5,613,663	1,621,787	1,878,610	(15,246)	6,707,791	0.482	3,233,155	41,665,926	
12	11.5	13,970,039	3,614,865	4,659,537	10,355,174	5,695,577	1,645,452	1,912,130	(15,887)	6,813,479	0.450	3,066,066	44,731,992	
13	12.5	15,087,647	3,729,274	4,730,149	11,357,763	6,627,614	1,914,718	1,946,302	(64,821)	7,561,564	0.420	3,175,857	47,907,849	
14	13.5	15,389,395	3,848,672	4,816,514	11,540,723	6,724,209	1,942,624	1,981,137	(17,562)	7,634,464	0.392	2,992,710	50,900,559	
15	14.5	16,317,754	3,971,376	4,905,898	12,341,383	7,435,485	2,148,112	2,036,650	(53,555)	8,230,176	0.365	3,004,014	53,904,573	
16	15.5	16,312,759	4,098,174	4,764,210	12,214,635	7,450,425	2,152,428	1,686,951		8,375,256	0.341	2,855,962	56,760,535	
17	16.5	17,291,725	4,229,150	4,836,367	13,062,475	8,226,108	2,376,523	1,710,730	(56,768)	9,031,990	0.318	2,872,173	59,632,708	
18	17.5	17,291,725	4,363,305	4,841,729	12,927,220	8,085,481	2,335,898	1,734,870		8,856,452	0.297	2,630,366	62,263,074	
19	18.5	17,291,725	4,504,138	4,847,145	12,787,487	7,940,294	2,293,951	1,759,376		8,734,160	0.277	2,419,362	64,682,436	
20 and beyond	19.5	17,983,186	4,648,405	4,923,552	13,334,781	8,411,229	2,430,004	1,784,260	(40,117)	9,160,634	4.550	41,680,885	106,363,321	
			70,145,348					34,357,351						

Age
 PW(Age) = 1/(1+Discount Rate)^{Age}
 PW to Perpetuity = 1/Capitalization Rate
 PW_(20 and beyond) = PW to Perpetuity * PW Factor_(19.5)

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Market Approach Summary

	Book Ratios	Purchase Price to Depreciated Original Cost (Book Value)	Indicated Market Value
Comparable Sales			
Depreciated Original Cost (AUS Consultants) OCLD	40,057,633.92	1.5819	63,367,171
Replacement Cost New less Depreciation RCNLD	99,589,818.55	0.9516	94,769,671
Average			79,068,421
 Use (RCNLD)			 94,769,671
 Financial Markets	 Market Value per Share to Book Value per Share		
Market to Book (equity)	2.61		
Market to Book (equity and debt)	1.77		
 Use (equity and debt)	 1.77		
 Market Conclusion	 Investor Purchaser Owned Value to Depreciated Original Cost (Book Value)		
 Exeter Wastewater System	 Exeter Wastewater System		
AUS Depreciated Original Cost	40,057,634	1.77	70,902,012
 Market Value			 Indicated Valus \$s
Minimum			63,367,171
Mean			76,346,285
Median			70,902,012
Maximum			94,769,671
 Use (RCNLD)			 94,769,671

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Cost Approach

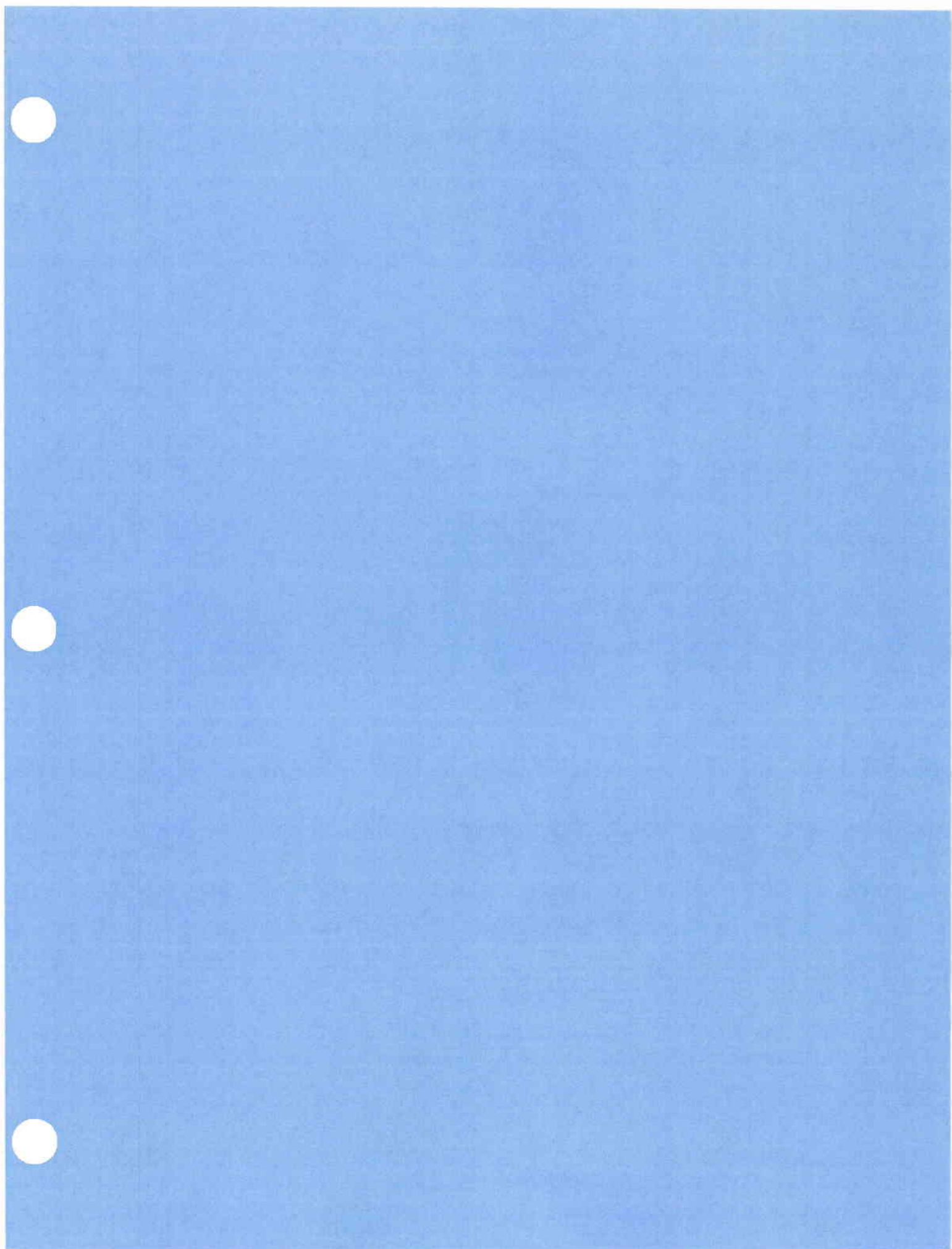
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Pennsylvania-American Water Company
Eastern Wastewater System
Eastern Township, Berks County, Pennsylvania
Wastewater System
Investor-Owned Utility

Summary of Original Cost, Average Service Life/Curve, Replacement Cost and Depreciated Replacement Cost
As of January 1, 2018

Account No.	Description	Original Cost	Cost Index	Year Translated	Reproduction Cost New	Replacement Cost New	Average Age	Weighted RCN Age	Low Service Curve and Life	Average Normal Remaining Life	Weighted RCN Average Normal Remaining Life	Average Total Life Expectancy	Weighted FCN Average Total Life Expectancy	Condition	Depreciated Replacement Cost	Economic Obsolescence	Fair Market Value	
353 20	Land & Land Rights Collection	536,064.54	USBLN	2.25	749,404.75	1,000	749,404.75	32.00	24,434,285.00	Non-Depr		100.00%		100.00%	749,404.75	0.00%	749,404.75	
353 30	Land & Land Rights Pumping	63,244.00	USBLN	1.50	99,950.00	1,000	99,950.00	22.17	2,154,472.00	Non-Depr		100.00%		100.00%	99,950.00	0.00%	99,950.00	
353 40	Land & Land Rights Treatment	735,535.35	USBLN	3.075	2,261,697.05	3,000	2,261,697.05	39.72	8,942,529.00	Non-Depr		100.00%		100.00%	2,261,697.05	0.00%	2,261,697.05	
354 30	Structures & Improvements Pumping	1,243,471.00	HWW 18	2.28	2,181,008.75	3,000	2,181,008.75	23.09	50,559,151.00	44.0 45 yrs	22.70	49,515,519.00	49.62%	3,082,243.81	0.00%	1,087,474.87		
354 40	Structures & Improvements Treatment	6,457,649.12	HWW 115	3.057	11,149,475.20	3,000	11,149,475.20	37.99	3,176,732,065.00	74.1 55 yrs	24.71	2,638,338,995.00	47.99%	27,932,068.89	0.00%	47,932,068.89		
355 30	Generating Equipment Pumping	46,258.50	USBLN	1.547	71,562.00	1,000	71,562.00	44.56	1,752,773.00	R3 30 yrs	19.65	958,716.00	57.89%	27,217,487.50	95.34%	25,289.42		
360 21	Collection Sews Force Main	724,180.15	HWW 144	1.969	1,440,743.93	1,000	1,440,743.93	14.87	26,601,637.00	RS 60 yrs	40.54	58,962,345.00	60.79%	87,582,982.00	67.36%	97,448,023.00		
360 23	Collection Sews Gravity Manholes	165,868.09	HWW 145	1.642	277,340.40	1,000	277,340.40	13.48	5,304,528.00	RS 65 yrs	46.44	12,616,233.00	65.40%	17,920,786.00	74.47%	191,793.41		
361 21	Collection Sews Gravity Man	15,463,350.52	HWW 144	3.766	52,172,506.70	1,000	52,172,506.70	35.45	1,916,923,777.00	R3 80 yrs	45.03	2,258,336,876.00	54.35%	27,767,923.67	0.00%	27,767,923.67		
361 22	Collection Sews Gravity Man Reline	161,434.00	HWW 144	1.7	180,828.40	1,000	180,828.40	9.23	1,665,713.00	RS 300 yrs	70.90	1,767,179.00	80.11	1,448,653.00	8.45%	16,043.65		
361 23	Collection Sews Gravity Manholes	4,110,550.95	HWW 145	2.507	11,949,375.38	1,000	11,949,375.38	30.87	461,541,633.00	RS 200 yrs	46.36	553,986,646.00	63.23%	394,525,265.00	56.11%	6,704,919.15		
361 24	Collection Sews Gravity Manholes Repair	10,179.00	HWW 145	1.044	10,626.60	1,000	10,626.60	2.50	2,657.00	RS 200 yrs	77.64	87,707.00	86.14	45,154.00	9.69%	1,029.54		
363 20	Service laterals	4,127,134.46	HWW 139	3.376	27,369,203.97	1,000	27,369,203.97	19.96	984,283,481.00	RS 30 yrs	23.53	674,884,859.00	59.89%	1,639,194,341.00	41.17%	11,254,482.51		
364 20	Flow Measuring Devices	24,200.54	HWW 146	1.973	40,090.11	1,000	40,090.11	37.75	311,209.00	RS 45 yrs	23.80	394,155.00	16.05%	1,445,404.00	45.35%	26,194.65		
365 20	Flow Measuring Installations	15,497.64	HWW 140	2.583	24,677.40	1,000	24,677.40	26.50	1,146,764.00	RS 45 yrs	11.74	2,940,312.00	48.44%	3,477,076.00	51.01%	76,530.76		
371 30	Pumping Equipment	180,104.68	HWW 139	4.109	379,859.84	1,000	379,859.84	18.75	6,893,209.00	RS 30 yrs	18.78	7,134,775.00	16.99%	4,027,579.00	51.62%	194,373.11		
371 32	Pumping Equipment Motor	61,593.68	HWW 139	4.476	143,445.00	1,000	143,445.00	20.20	2,894,167.00	RS 30 yrs	17.00	2,441,298.00	37.76%	5,337,225.00	46.43%	66,506.40		
380 40	Treatment and Disposal Equipment	315,491.49	HWW 117	1.117	575,784.83	1,000	575,784.83	4.68	4,139,410.00	RS 0.45 yrs	41.85	2,809,188.00	45.03%	4,928,600.00	91.83%	578,747.73		
390 10	Office Furniture & Equipment	800.00	AUST 115	1.026	91,487.84	1,000	91,487.84	3.68	335,813.00	RS 12 yrs	8.50	275,557.00	17.18%	1,111,395.00	69.89%	63,999.45		
391 10	Transportation Equipment	24,671.01	AUST 14	1.371	27,669.14	1,000	27,669.14	2.43	422,136.00	RS 3.12 yrs	8.50	274,724.00	15.83%	436,882.00	9.48%	2,216.52		
393 70	Tools, Shop, & Garage Equipment	12,174.91	AUST 17	1.338	47,694.46	1,000	47,694.46	7.88	380,601.00	R3 30 yrs	27.32	1,306,258.00	35.37%	1,646,860.00	77.03%	67,023.29		
394 70	Laboratory Equipment	40,810.55	AUST 17	1.117	66,159.85	1,000	66,159.85	7.74	996,135.00	RS 12 yrs	11.00	1,062,375.00	20.79%	1,999,105.00	23.59%	51,574.13		
395 10	Power Operated Equipment	199,020.00	AUST 18	1.0	3,912.00	1,000	3,912.00	6.50	25,479.00	RS 3.12 yrs	8.00	24,737.00	12.74%	49,136.00	48.25%	1,887.52		
397 70	Miscellaneous equipment	4,170.76	AUST 18	1.131	4,601.61	1,000	4,601.61	7.80	45,847.00	RS 3.20 yrs	7.41	59,033.00	20.51%	94,922.00	63.04%	2,900.82		
PHIL PLANT		\$ 58,404,345			\$ 209,865,528	6,999	\$ 209,865,528	34.95	\$ 7,214,247,658		36.16	\$ 6,330,477,462	64.18%	\$ 7,468,746,726	47.45%	\$ 99,589,819	0.00%	\$ 99,589,819

Account No.	Description	Original Cost	Cost Index	Year Translated	Reproduction Cost New	Replacement Cost New	Average Age	Weighted RCN Age	Low Service Curve and Life	Average Normal Remaining Life	Weighted RCN Average Normal Remaining Life	Average Total Life Expectancy	Weighted FCN Average Total Life Expectancy	Condition	Depreciated Replacement Cost	Economic Obsolescence	Fair Market Value	
353 20	Land & Land Rights Collection	1,134,308.50	2.741		1,111,037.00	1,000	1,111,037.00	37.44	216,473,436.00	0	0.00	0.00	100.00%	1,111,037.00	0.00%	1,111,037.00		
354 30	Structures & Improvements Pumping	1,082,471.00	2.18		2,181,008.75	3,000	2,181,008.75	23.09	50,559,151.00	0	0	49.62%	1,082,243.81	0.00%	1,082,243.81			
354 40	Structures & Improvements Treatment	36,437,669.12	3.057		11,149,475.20	3,000	11,149,475.20	37.99	3,176,732,065.00	0	0	47.99%	27,932,068.89	0.00%	27,932,068.89			
355 30	Generating Equipment Pumping	46,258.50	1.547		71,562.00	1,000	71,562.00	44.56	1,752,773.00	0	0	57.89%	25,289.42	0.00%	25,289.42			
360 21	Collection Sews Force Main	9,642,316.48	3.172		17,133,084.31	400	17,133,084.31	14.87	11,492,165.00	90	41.74	11,578,919.00	67.85%	1,427,862.45	0.00%	1,427,862.45		
360 23	Collection Sews Gravity Manholes	1,614,747.46	3.376		2,736,923.97	1,000	2,736,923.97	35.96	984,283,481.00	25	43.34	654,884,859.00	59.89%	11,254,482.51	0.00%	11,254,482.51		
363 20	Service laterals	241,702.36	4.104		523,104.84	1,000	523,104.84	18.71	9,787,974.00	45	18.51	9,577,485.00	37.02%	262,579.51	0.00%	262,579.51		
371 30	Pumping Equipment	180,104.68	1.117		575,784.83	1,000	575,784.83	3.68	4,139,410.00	45	41.15	2,809,188.00	45.03%	578,747.73	0.00%	578,747.73		
380 40	Treatment and Disposal Equipment	244,685.96	1.109		271,233.98	1,000	271,233.98	7.84	2,126,443.00	12	11.99	2,751,656.00	19.83%	159,473.73	0.00%	159,473.73		
390 10	Office Furniture & Equipment	68,404,345.14	1.068		209,865,527.40	6,999	209,865,527.40	34.99	7,254,247,659.00	12	40.19	6,330,477,462.00	64.23%	7,468,746,726.00	47.49%	99,589,819.51	0.00%	99,589,819.51



Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Cost Approach
Replacement Cost New

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Pennsylvania American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Account	Account Description	Description	Description	Placement Year	Earliest Trnd Year	Invntment	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Transator	Reproduction Cost New (RCN)	Replacement Cost New (COR)	Replacement Cost New (COR)				
Unit		Input	Input	Year	Year	Year	Input	Year Index	Year Index	Multiplier	RCN \$	COR \$	COR \$				
Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Year	Year	Year	Exeter Engineers Assessment Date	Year Index	Year Index	Cost Index	Cost Index	Cost Index	Cost Index				
Account	DESC	DESC	DESC	Year	Year	Year	Account	Year Index	Year Index	Cost Index	Cost Index	Cost Index	Cost Index				
353 20	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	817.6 LF	1968	1968	57 381.48	USBL.S'	37	245	7.656	287 727.49	1 000	287 727.49				
353 21	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	1144 LF	1970	1970	830.28	USBL.S'	39	245	6.287	3 956.42	1 000	3 956.42				
353 22	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	8715.6 LF	1975	1975	6 715.66	USBL.S'	240	245	4.537	30 408.95	1 000	30 408.95				
353 23	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	758 LF	1980	1980	1 669.89	USBL.S'	87	245	2.988	3 106.63	1 000	3 106.63				
353 24	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	7 077 LF	1985	1985	4 481.18	USBL.S'	108	245	2.250	10 877.80	1 000	10 877.80				
353 25	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	2 008 LF	1987	1987	1 876.77	USBL.S'	114	245	2.144	3 907.26	1 000	3 907.26				
353 26	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	8 592 LF	1990	1990	18 834.90	USBL.S'	31	245	8.870	34 847.29	1 000	34 847.29				
353 27	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	309 LF	1992	1992	867.41	USBL.S'	40	245	1.750	1 517.97	1 000	1 517.97				
353 28	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	55 392 LF	1995	1995	128 808.41	USBL.S'	152	245	1.612	204 415.18	1 000	204 415.18				
353 29	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	3 444 LF	2000	2000	15 265.88	USBL.S'	172	245	1.424	21 787.08	1 000	21 787.08				
353 30	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	626 LF	2005	2005	78 604.25	USBL.S'	195	245	1.288	98 214.94	1 000	98 214.94				
353 31	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	3 452 LF	2010	2010	45 440.75	USBL.S'	218	245	1.124	51 085.52	1 000	51 085.52				
353 32	LAND AND LAND RIGHTS - COLLECTION	COLLECTION SYSTEM ROW	11 LF	2012	2012	121.22	USBL.S'	230	245	1.085	129.18	1 000	129.18				
353 30 Total						330 008.94					749 404.75		749 404.75				
353 33	LAND AND LAND RIGHTS - PUMPING	BUDDIES PLACE PUMP STA	0.101 ACRES	1992	1992	4 182.97	USBL.S'	140	245	1.750	7 320.09	1 000	7 320.09				
353 34	LAND AND LAND RIGHTS - PUMPING	LINCOLN ROAD PUMP STA	0.138 ACRES	1992	1992	5 876.62	USBL.S'	140	245	1.750	9 830.84	1 000	9 830.84				
353 35	LAND AND LAND RIGHTS - PUMPING	SOUTH BAUMS TOWN PUM	0.073 ACRES	1992	1992	2 906.17	USBL.S'	140	245	1.750	5 243.30	1 000	5 243.30				
353 36	LAND AND LAND RIGHTS - PUMPING	FOOTSTOWN AVENUE PUM	0.110 ACRES	1993	1993	34 796.54	USBL.S'	140	245	1.666	57 788.96	1 000	57 788.96				
353 37	LAND AND LAND RIGHTS - PUMPING	PINELAND ROAD PUMP STA	1.307 ACRES	1994	1994	62 999	USBL.S'	157	245	1.581	145 118	1 000	145 118				
353 38	LAND AND LAND RIGHTS - PUMPING	GLENDALE PUMP STA	0.063 ACRES	2006	2006	16 159.85	USBL.S'	202	245	1.213	19 001.93	1 000	19 001.93				
353 30 Total						83 244.18					99 830.18		99 830.18				
353 41	LAND AND LAND RIGHTS - TREATMENT	WWTP - HOFFMAN - ROPE	16.475 ACRES	1965	1965	110 204.70	USBL.S'	32	245	7.656	843 727.18	1 000	843 727.18				
353 42	LAND AND LAND RIGHTS - TREATMENT	WWTP - LINCOLN NURSER	5.370 ACRES	1987	1987	36 666.92	USBL.S'	70	245	7.424	274 442.41	1 000	274 442.41				
353 43	LAND AND LAND RIGHTS - TREATMENT	WWTP - HANCOCK - ROPE	7.758 ACRES	1977	1977	53 000.00	USBL.S'	87	245	4.816	2 748 000	1 000	2 748 000				
353 44	LAND AND LAND RIGHTS - TREATMENT	WWTP - ANN NURSERY PR	5.830 ACRES	1984	1984	151 000.00	USBL.S'	104	245	2.358	353 400.00	1 000	353 400.00				
353 45	LAND AND LAND RIGHTS - TREATMENT	WWTP - STANKIEWICZ PR	0.624 ACRES	1993	1993	23 463.73	USBL.S'	145	245	1.690	30 853.70	1 000	30 853.70				
353 46	LAND AND LAND RIGHTS - TREATMENT	WWTP - HAMPTON PROPE	2.784 ACRES	1998	1998	329 600.00	USBL.S'	245	245	1.503	488 475.00	1 000	488 475.00				
353 47	LAND AND LAND RIGHTS - TREATMENT	WWTP - EAKER PROPE	0.269 ACRES	2003	2003	36 900.00	USBL.S'	184	245	1.332	49 150.80	1 000	49 150.80				
353 40 Total						735 535.35					2 281 697.09		2 281 697.09				
354 30	STRUCTURES AND IMPROVEMENTS - PUMPING	LINCOLN ROAD PUMPING	0	1993	1993	889 698.03	HWW-18	294	875 3	2 297	1 079 580.88	1 000	1 079 580.88				
354 31	STRUCTURES AND IMPROVEMENTS - PUMPING	BUDDIES PLACE PUMPING	0	1993	1993	105 85.19	HWW-18	294	875 3	2 297	250 008.21	1 000	250 008.21				
354 32	STRUCTURES AND IMPROVEMENTS - PUMPING	FOOTSTOWN AVENUE PUM	0	1993	1993	108 84.10	HWW-18	294	875 3	2 297	250 008.21	1 000	250 008.21				
354 33	STRUCTURES AND IMPROVEMENTS - PUMPING	SOUTH BAUMS TOWN PUM	0	1993	1993	108 84.19	HWW-18	294	875 3	2 297	250 008.21	1 000	250 008.21				
354 34	STRUCTURES AND IMPROVEMENTS - PUMPING	PINELAND ROAD PUMPING	0	1997	1997	55 575.20	HWW-18	357	875 3	2 040	112 836.93	1 000	112 836.93				
354 35	STRUCTURES AND IMPROVEMENTS - PUMPING	GLENDALE PUMPING STA	0	2004	2004	148 838.70	HWW-18	420 8	875 3	1 805	238 584.31	1 000	238 584.31				
354 30 Total						1 300 471.66					2 181 008.75		2 181 008.75				
354 41	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP - 087 ORIGINAL PRO	0	1987	1987	2 353 895.84	HWW-115	6	874 5	11 457	38 028 913.52	1 000	38 028 913.52				
354 42	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP - 376 UPGRADE/EXP	0	1978	1978	4 955 854.76	HWW-115	148	874 5	4 557	22 284 812.29	1 000	22 284 812.29				
354 43	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP - 1088 REGRATE PROJ	0	1986	1986	91 897.59	HWW-115	233	874 5	2 895	280 043.52	1 000	280 043.52				
354 44	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP - 992 EXPANSION/UF	0	1987	1987	23 110 970.29	HWW-115	28	874 5	2 400	55 468 328.70	1 000	55 468 328.70				
354 45	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP - 2002 IMPROVEMENT	0	2002	2002	389 734.00	HWW-115	388 8	874 5	1 735	878 198.46	1 000	878 198.46				
354 46	STRUCTURES AND IMPROVEMENTS - TREATMENT	BIOLOGICAL DRYER UNIT RE	0	2010	2010	6 480 821.44	HWW-115	359 8	874 5	1 205	8 580 744.92	1 000	8 580 744.92				
354 47	STRUCTURES AND IMPROVEMENTS - TREATMENT	ROOF OPERATIONS BUILD	0	2013	2013	10 935.00	HWW-115	613 8	874 5	1 099	12 017.57	1 000	12 017.57				
354 48	STRUCTURES AND IMPROVEMENTS - TREATMENT	ROOF OPERATIONS BUILD	0	2013	2013	42 808.00	HWW-115	613 8	874 5	1 099	48 892.13	1 000	48 892.13				
354 49	STRUCTURES AND IMPROVEMENTS - TREATMENT	PH III HEADWORKS UPGRA	0	2014	2014	19 850.00	HWW-115	830 8	874 5	1 099	21 251.72	1 000	21 251.72				
354 50	STRUCTURES AND IMPROVEMENTS - TREATMENT	PH III HEADWORKS UPGRA	0	2014	2014	11 827.00	HWW-115	830 8	874 5	1 099	12 843.08	1 000	12 843.08				
354 51	STRUCTURES AND IMPROVEMENTS - TREATMENT	NEW SCALERS ROOM	0	2016	2016	4 784.00	HWW-115	861 3	874 5	1 020	4 949.28	1 000	4 949.28				
354 52	STRUCTURES AND IMPROVEMENTS - TREATMENT	WWTP GARAGE ROOF REPA	0	2018	2018	99 500.00	HWW-115	861 3	874 5	1 020	101 480.00	1 000	101 480.00				
354 40 Total						36 451 094.12					111 449 475.23		111 449 475.23				
355 30	POWER GENERATION EQUIPMENT - PUMPING	1993 MARA HOOD BRUSHLE	0	1993	1993	27 873.00	USBL.S4	133 5	208 5	1 547	36 931.53	1 000	36 931.53				
355 31	POWER GENERATION EQUIPMENT - PUMPING	PORTABLE GENERATOR	0														
355 32	POWER GENERATION EQUIPMENT - PUMPING	WITSALE - 18 MDI	0														
355 33	POWER GENERATION EQUIPMENT - PUMPING	100DG266090B	0														
355 30 Total																	
360 211	COLLECTION SEWERS - FORCE MAINS	949055 845	0	1993	1993	15 659.19	USBL.S4	133 5	208 5	1 547	24 534.17	1 000	24 534.17				
360 213	COLLECTION SEWERS - FORCE MAINS	125 K V GENERATOR DE	0	1993	1993	8 526.41	USBL.S4	133 5	208 5	1 547	10 096.38	1 000	10 096.38				
360 213	COLLECTION SEWERS - FORCE MAINS	186 FT	0	1966	1966	46 258.60	HWW-138	211	854 8	2 448	71 582.00	1 000	71 582.00				
360 213	COLLECTION SEWERS - FORCE MAINS	2 707 FT	0	1968	1968	1 235.23	HWW-138	211	854 8	2 448	31 816.23	1 000	31 816.23				
360 213	COLLECTION SEWERS - FORCE MAINS		0	1968	1968	86 013.51	HWW-138	341	854 8	2 448	210 562.05	1 000	210 562.05				

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Investor-Owned Utility
 As of January 1, 2018

(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Account	Account Description	Description	Description	Placement Year	Earliest Termination Year	Investment	Costing Parameter	Placement Date	Cost Index	Appraise Date	Cost	Reproduction Cost New (RCN)	Reproduction Cost New (COR)	Replacement Cost New (COR)	
input				Year	Year	(\$)		YYMMDD				(\$)	(\$)	(\$)	
Asset Engineers Assessment Date	Asset Engineers Assessment Date	Asset Engineers Assessment Date	Asset Engineers Assessment Date	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	
Account	Account Desc	Factor - Length	Asset Unit	Estimate	Assessment	Assessment	Assessment	AUS Input	Cost Index	App Cost Index	Cost (\$)	Cost (\$)	Cost (\$)	Cost (\$)	
360 213	360 213	DI 8-INCH	6.32 F	1995	1995	127,460.55	HVVW-135	3-1	834.9	2,448	802,847.43	900	802,847.43		
360 211	360 211	HVC 2-INCH	21 FT	2005	2005	11,070.25	HVVW-138	2-8	346.5	1,350	14,044.84	1,000	14,044.84		
360 211	360 211	HVC 8-INCH	4,104 FT	2005	2005	281,906.21	HVVW-138	2-8	346.5	1,350	380,573.38	1,000	380,573.38		
360 23 Total	COLLECTION SEWERS FORCE - MAINS					724,861.01					1,440,743.03		1,440,743.03		
360 23	COLLECTION SEWERS FORCE - MANHOLES	MANHOLES	2	1990	1990	4,042.06	HVVW-145	2-3	542	2,081	9,334.85	0.00	9,334.85		
360 23	COLLECTION SEWERS FORCE - MANHOLES	MANHOLES	42	1995	1995	68,866.67	HVVW-145	2-3	542	1,808	177,525.2	0.00	177,525.2		
360 23	COLLECTION SEWERS FORCE - MANHOLES	MANHOLES	20	2005	2005	63,835.24	HVVW-145	2-3	542	1,356	66,480.43	0.00	66,480.43		
360 23 Total	COLLECTION SEWERS FORCE - MANHOLES					136,898.97					272,340.46		272,340.46		
361 212	361 212	VCP 8-INCH	2,628 FT	1998	1998	27,564.51	HVVW-136	8-2	751.5	9,165	207,076.85	1,000	207,076.85		
361 22	361 212	VCP 8-INCH	724,460 FT	1998	1998	1,622,426.06	HVVW-136	8-2	751.5	9,165	16,702,534.54	1,000	6,702,534.54		
361 213	361 213	DI 8-INCH	1,488 FT	1998	1998	17,449.45	HVVW-135	8-0	834.9	10,439	182,608.78	1,000	182,608.78		
361 212	361 212	VCP 10-INCH	1,406 FT	1998	1998	8,258.92	HVVW-136	8-2	751.5	9,165	75,893.00	1,000	75,893.00		
361 212	361 212	VCP 12-INCH	3,776 FT	1998	1998	81,721.48	HVVW-136	8-2	751.5	9,165	820,887.18	1,000	820,887.18		
361 212	361 212	VCP 15-INCH	9,036 FT	1998	1998	8,114.57	HVVW-136	8-2	751.5	9,165	743,413.2	1,000	743,413.2		
361 212	361 212	VCP 18-INCH	20,949 FT	1998	1998	178,172.46	HVVW-136	8-2	751.5	9,165	1,613,707.21	1,000	1,613,707.21		
361 212	361 212	VCP 18-INCH	4,810 FT	1998	1998	57,880.37	HVVW-136	8-2	751.5	9,165	530,200.24	1,000	530,200.24		
361 212	361 212	VCP 20-INCH	5,502 FT	1998	1998	38,751.83	HVVW-136	8-2	751.5	9,165	336,830.52	1,000	336,830.52		
361 212	361 212	VCP 21-INCH	816 FT	1998	1998	8,630.34	HVVW-136	8-2	751.5	9,165	83,971.58	1,000	83,971.58		
361 212	361 212	VCP 24-INCH	10,234 FT	1998	1998	175,303.67	HVVW-136	8-2	751.5	9,165	608,660.52	1,000	608,660.52		
361 212	361 212	VCP 30-INCH	5,286 FT	1998	1998	68,530.85	HVVW-136	8-2	751.5	9,165	603,033.41	1,000	603,033.41		
361 212	361 212	VCP 36-INCH	3,052 FT	1970	1970	69,529.55	HVVW-136	8-8	751.5	8,540	853,348.19	1,000	853,348.19		
361 212	361 212	VCP 36-INCH	3,943 FT	1975	1975	552,234.58	HVVW-136	1-18	751.5	5,078	2,903,231.00	1,000	2,903,231.00		
361 211	361 211	VCP 36-INCH	27 FT	1975	1975	19,786.28	HVVW-136	1-18	751.5	3,695	77,001.35	1,000	77,001.35		
361 212	361 212	VCP 36-INCH	4,292 FT	1998	1998	114,579.53	HVVW-136	2-1	751.5	3,545	408,180.78	1,000	408,180.78		
361 211	361 211	VCP 36-INCH	47 FT	1980	1980	24,557.71	HVVW-138	1-16	589.5	2,951	72,410.78	1,000	72,410.78		
361 212	361 212	VCP 36-INCH	1,588 FT	1980	1980	45,272.27	HVVW-136	1-16	589.5	2,12	162,480.20	1,000	162,480.20		
361 212	361 212	VCP 36-INCH	6,067 FT	1985	1985	202,269.88	HVVW-136	1-16	589.5	2,947	589,089.28	1,000	589,089.28		
361 211	361 211	VCP 36-INCH	28,830 FT	1985	1985	818,573.23	HVVW-136	1-16	589.5	2,970	2,105,942.36	1,000	2,105,942.36		
361 211	361 211	VCP 36-INCH	2,751 FT	1985	1985	83,371.79	HVVW-136	1-16	589.5	2,570	215,015.86	1,000	215,015.86		
361 212	361 212	VCP 36-INCH	726 FT	1987	1987	65,065.76	HVVW-136	1-16	751.5	2,732	177,824.56	1,000	177,824.56		
361 211	361 211	VCP 36-INCH	10,829 FT	1987	1987	344,555.04	HVVW-136	1-16	751.5	2,434	836,549.67	1,000	836,549.67		
361 212	361 212	VCP 36-INCH	5,992 FT	1990	1990	240,879.18	HVVW-138	1-16	751.5	2,223	535,474.42	1,000	535,474.42		
361 211	361 211	VCP 36-INCH	64,627 FT	1990	1990	2,310,437.70	HVVW-138	1-16	751.5	2,140	4,285,087.99	1,000	4,285,087.99		
361 212	361 212	VCP 36-INCH	222 FT	1992	1992	9,445.66	HVVW-138	1-16	751.5	2,356	22,254.45	1,000	22,254.45		
361 211	361 211	VCP 36-INCH	7,360 FT	1992	1992	285,425.68	HVVW-138	1-16	751.5	2,128	607,385.85	1,000	607,385.85		
361 211	361 211	VCP 36-INCH	2,878 FT	1995	1995	49,863.82	HVVW-138	1-16	751.5	1,909	64,893.31	1,000	64,893.31		
361 212	361 212	VCP 36-INCH	8,288 FT	1995	1995	251,321.82	HVVW-138	1-16	751.5	2,123	533,558.22	1,000	533,558.22		
361 211	361 211	VCP 36-INCH	127,757 FT	1995	1995	4,569,612.10	HVVW-138	1-16	751.5	1,909	6,761,569.50	1,000	6,761,569.50		
361 21	361 21	VCP 36-INCH	444 FT	1995	1995	5,458.32	HVVW-138	1-16	751.5	1,909	30,464.43	1,000	30,464.43		
361 21	361 21	VCP 36-INCH	1,227 FT	1995	1995	35,106.14	HVVW-138	1-16	751.5	1,909	67,895.76	1,000	67,895.76		
361 21	361 21	VCP 36-INCH	754 FT	1995	1995	37,854.69	HVVW-138	1-16	751.5	1,909	71,901.87	1,000	71,901.87		
361 211	361 211	VCP 36-INCH	9,288 FT	2000	2000	349,642.51	HVVW-138	1-16	751.5	1,688	840,583.07	1,000	840,583.07		
361 211	361 211	VCP 36-INCH	23,824 FT	2005	2005	1,270,047.45	HVVW-138	1-16	751.5	1,350	1,726,773.40	1,000	1,726,773.40		
361 211	361 211	VCP 36-INCH	4,817 FT	2010	2010	224,452.48	HVVW-138	1-16	751.5	1,078	241,810.87	1,000	241,810.87		
361 211	361 211	VCP 36-INCH	732 FT	2012	2012	51,478.06	HVVW-138	1-16	751.5	1,057	49,265.30	1,000	49,265.30		
361 211	361 211	VCP 36-INCH	3,862 FT	2012	2012	850,282.00	HVVW-138	1-16	751.5	1,057	631,869.67	1,000	631,869.67		
361 21 Total	COLLECTION SEWERS GRAVITY MAINS					5,360,750.52					50,172,506.70		50,172,506.70		
361 22	COLLECTION SEWERS GRAVITY MAIN RELINING	REINFORCEMENT SEWER MAIN	0	2006	2008	148,825.00	HVVW-144			808	573.5	1,129	167,791.63		
361 22	COLLECTION SEWERS GRAVITY MAIN RELINING	VN REHAB INC	0	2014	2012	14,813.00	HVVW-144			564	1,030.82	0.00	18,776.78		
361 23 Total	COLLECTION SEWERS GRAVITY MAIN RELINING					161,438.00					180,824.45		180,824.45		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	1374	1998	1998	348,282.40	HVVW-145	8-4	542.1	8,392	5,020,786.68	1,000	5,020,786.68		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	41	1970	1970	24,164.85	HVVW-145	8-2	542.1	6,811	159,952.15	1,000	159,952.15		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	159	1975	1975	150,280.15	HVVW-145	1-25.1	542.1	4,353	851,202.89	1,000	851,202.89		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	73	1980	1980	48,262.72	HVVW-145	8-7	542.1	2,819	129,202.88	1,000	129,202.88		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	164	1985	1985	297,567.45	HVVW-145	2-8.1	542.1	2,185	650,184.88	0.00	650,184.88		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	59	1987	1987	111,081.54	HVVW-145	2-55.8	542.1	2,121	235,803.95	0.00	235,803.95		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	129	1990	1990	685,251.72	HVVW-145	2-63	542.1	2,081	1,371,083.79	1,000	1,371,083.79		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	30	1992	1992	78,885.46	HVVW-145	2-78	542.1	1,984	150,810.24	0.00	150,810.24		
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	608	1995	1995	1,514,910.92	HVVW-145	2-99.9	542.1	1,808	2,738,458.94	1,000	2,738,458.94		

Pennsylvania-American Water Company
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Investor-Owned Utility
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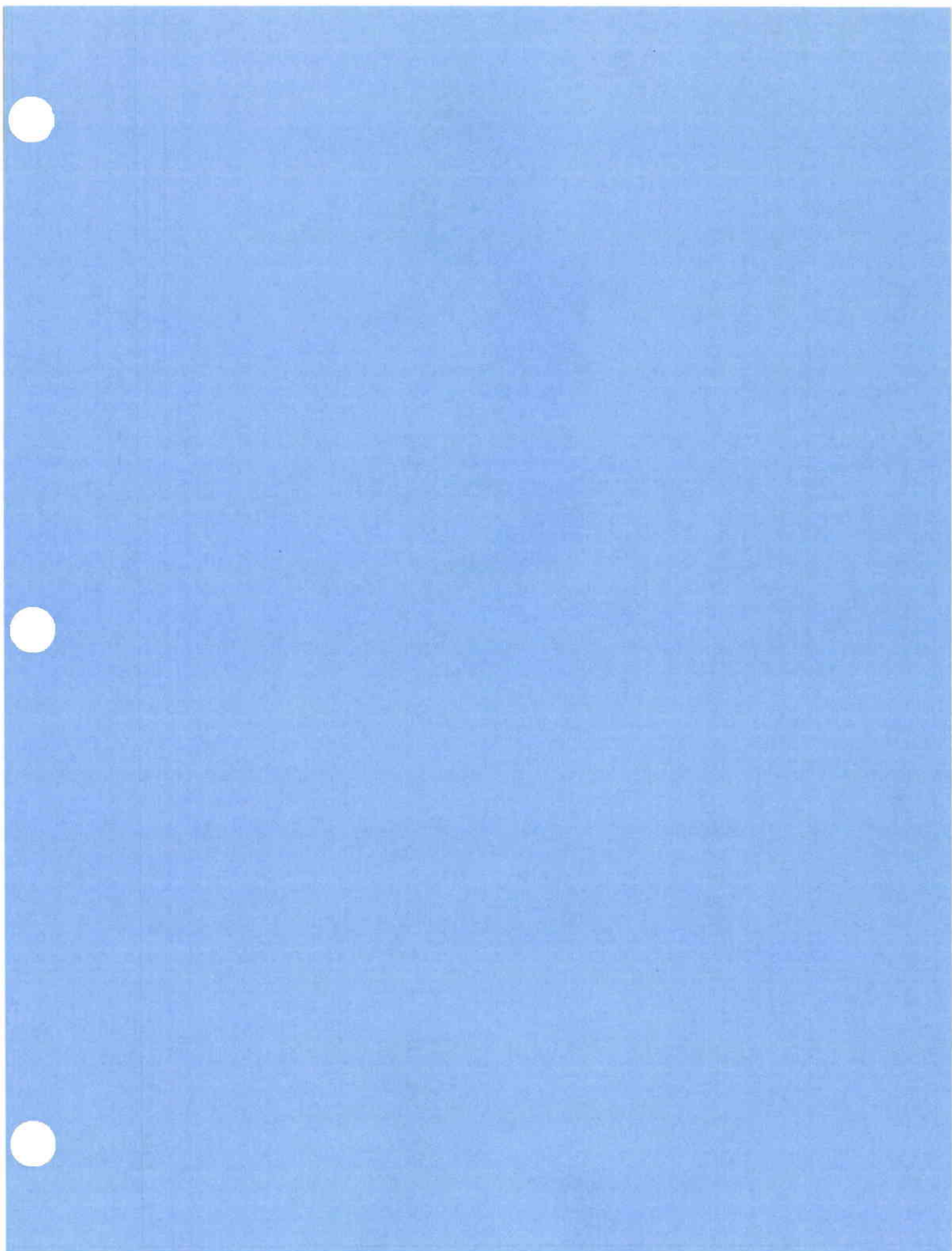
(0)	(0')	(02)	05	(1)	(15)	(2)	(25)	3a	(3b)	(3c)	(4)	(5a)	(5b)
Account	Account Description	Description	Description 2	Placement Year	Earliest Trend Year	Postment	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Replacement Cost New (RCR)	Replacement Cost New (COR)
				Input	Input	Input	Input	Input	Input	Calculator	Comments	Input	Comments
				Year2	Year2	Year2	Year2	YearIndex	APPCostIndex	Cost (2) / (3c)	RCN	AUS Input	Cost (2) / (5b)
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	MANHOLES	45	2000	2006	14 367 54	HWV-145	542 1	1 587	181 405 72	1 000	181 405 72
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	MANHOLES	23	2005	2005	353 170 18	HWV-145	542 1	1 350	470 006 40	1 000	470 006 40
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	MANHOLES	23	2010	2010	86 478 18	HWV-145	542 1	1 140	98 585 13	1 000	98 585 13
361 23	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	MANHOLES	17	2012	2012	7 083 00	HWV-145	451	542 1	1 104	1 600	81 765 55
381 23 Total	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLES	MANHOLES	0	2015	2015	4 110 550 98	HWV-145	519 2	542 1	1 044	1 000	11 949 309 18
361 24	COLLECTION SEWERS GRAVITY MANHOLES	MANHOLE REPAIRS	MANHOLE REPAIRS	0	2015	2015	10 179 00	HWV-145	519 2	542 1	1 044	1 000	10 628 88
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	3538	1606	1906	358 567 45	HWV-136	80	850 3	10 838	1 000	10 388 950 44
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	137	1970	1970	50 304 30	HWV-136	79	850 3	8 232	1 000	414 105 00
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	523	1975	1975	207 593 89	HWV-136	123	850 3	5 287	1 000	1 626 248 90
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	93	1980	1980	71 435 10	HWV-136	175	850 3	3 716	1 000	265 452 83
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	364	1985	1985	382 151 53	HWV-136	221	850 3	2 943	1 000	1 654 411 95
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	197	1987	1987	224 824 42	HWV-136	230	850 3	2 822	1 000	835 897 24
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	1082	1980	1980	1 361 328 35	HWV-136	282	850 3	2 482	1 000	3 376 816 06
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	118	1992	1992	153 749 62	HWV-136	283	850 3	2 298	1 000	353 316 03
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	2152	1985	1985	3 130 400 29	HWV-136	307	850 3	2 118	1 000	6 630 187 81
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	143	2000	2000	236 550 49	HWV-136	346	850 3	1 800	1 000	442 075 49
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	428	2005	2005	847 339 97	HWV-136	400 8	850 3	1 587	1 000	1 344 728 53
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	74	2010	2010	175 123 48	HWV-136	355 3	850 3	1 171	1 000	202 727 57
363 20	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	12	2012	2012	24 856 04	HWV-136	597 8	850 3	1 000	1 000	32 311 52
383 20 Total	COLLECTION SEWERS GRAVITY MANHOLES	SERVICES	SERVICES	0	2015	2015	5 107 147 46	HWV-140	162	418 5	2 583	1 000	27 369 203 97
364 20	FLOW MEASURING DEVICES	METER @ WOODLIF SANG	METER @ WOODLIF SANG	0	1991	1991	3 672 66	HWV-140	162	418 5	2 583	1 000	6 487 33
364 20	FLOW MEASURING DEVICES	METER @ SOUTH OF PARK	METER @ SOUTH OF PARK	0	2000	2000	5 868 17	HWV-140	247 8	418 5	1 880	1 000	9 045 12
364 20	FLOW MEASURING DEVICES	METER @ BNSAMAN STR	METER @ BNSAMAN STR	0	2010	2010	10 026 46	HWV-140	376 3	418 5	1 112	1 000	11 146 42
364 20	FLOW MEASURING DEVICES	METER @ GLE - TURNPIKE	METER @ GLE - TURNPIKE	0	2011	2011	8 812 72	HWV-140	379	418 5	1 104	1 000	9 508 44
384 20 Total	FLOW MEASURING DEVICES	CONCRETE METERING VAL	CONCRETE METERING VAL	0	1991	1991	28 200 34	HWV-140	62	418 5	2 583	1 000	40 090 31
365 20	FLOW MEASURING INSTALLATIONS	CONCRETE METERING VAL	CONCRETE METERING VAL	0	1991	1991	23 874 41	HWV-140	62	418 5	2 583	1 000	61 667 80
365 20	FLOW MEASURING INSTALLATIONS	CONCRETE METERING VAL	CONCRETE METERING VAL	0	1991	1991	23 874 41	HWV-140	62	418 5	2 583	1 000	61 667 80
365 20	FLOW MEASURING INSTALLATIONS	CONCRETE METERING VAL	CONCRETE METERING VAL	0	1991	1991	23 874 41	HWV-140	62	418 5	2 583	1 000	61 667 80
385 20 Total	FLOW MEASURING INSTALLATIONS	CONCRETE METERING VAL	CONCRETE METERING VAL	0	1993	1993	95 467 66	HWV-119	380	1117	2 894	1 000	246 870 40
371 30	PUMPING EQUIPMENT	LINCOLN ROAD PUMP/DR	LINCOLN ROAD PUMP/DR	0	1993	1993	24 736 63	HWV-119	380	1117	2 894	1 000	71 587 81
371 30	PUMPING EQUIPMENT	BLODDIES PLACE PUMP/DR	BLODDIES PLACE PUMP/DR	0	1993	1993	14 84 88	HWV-119	380	1117	2 894	1 000	42 952 60
371 30	PUMPING EQUIPMENT	POTTSTOWN AVENUE PU	POTTSTOWN AVENUE PU	0	1993	1993	14 84 46	HWV-119	380	1117	2 894	1 000	42 952 09
371 30	PUMPING EQUIPMENT	SOUTH BAYVIEWSTOWN PUM	SOUTH BAYVIEWSTOWN PUM	0	1993	1993	14 84 16	HWV-119	380	1117	2 894	1 000	42 952 94
371 30	PUMPING EQUIPMENT	PINE AND ROCK PUMP/DR	PINE AND ROCK PUMP/DR	0	1997	1997	6 286 98	HWV-119	473	1117	2 382	1 000	19 597 47
371 30	PUMPING EQUIPMENT	GLENN GLENN PUMP/DR	GLENN GLENN PUMP/DR	0	2006	2006	22 085 85	HWV-119	624 3	1117	1 780	1 000	49 342 28
371 30	PUMPING EQUIPMENT	WOLF GORMAN RUPP SEWER	WOLF GORMAN RUPP SEWER	0	999	1993	1 525 80	HWV-119	380	1117	2 894	1 000	31 850 79
371 30	PUMPING EQUIPMENT	PUMP SYSTEM-SEWER	PUMP SYSTEM-SEWER	0	2012	2012	6 487 80	HWV-119	787 5	1117	1 418	1 000	9 159 70
371 30	PUMPING EQUIPMENT	REQUID PUMP SHAFT	REQUID PUMP SHAFT	0	2012	2012	3 520 00	HWV-119	787 5	1117	1 418	1 000	4 991 36
371 30	PUMPING EQUIPMENT	REQUID PUMP SHAFT	REQUID PUMP SHAFT	0	2012	2012	4 520 00	HWV-119	787 5	1117	1 418	1 000	4 991 36
371 30	PUMPING EQUIPMENT	NEW DRIVE FOR RAW PUM	NEW DRIVE FOR RAW PUM	0	2013	2013	18 316 00	HWV-119	850	1117	1 330	1 000	24 470 18
371 30	PUMPING EQUIPMENT	NEW PUMP	NEW PUMP	0	2014	2014	18 251 00	HWV-119	896	1117	1 247	1 000	22 606 65
371 30	PUMPING EQUIPMENT	PUMP POWER BOARD	PUMP POWER BOARD	0	2015	2015	1 462 00	HWV-119	845	1117	1 162	1 000	1 763 54
371 30	PUMPING EQUIPMENT	PUMPING EQUIPMENT	PUMPING EQUIPMENT	0	2015	2015	874 00	HWV-119	645	1117	1 182	1 000	2 215 07
371 30	PUMPING EQUIPMENT	PUMP INSTALLATION	PUMP INSTALLATION	0	2015	2015	87 80	HWV-119	645	1117	1 182	1 000	103 89
371 30	PUMPING EQUIPMENT	BACKUP PUMP FOR RAW WAT	BACKUP PUMP FOR RAW WAT	0	2016	2016	6 385 00	HWV-119	1017	1117	1 006	1 000	8 881 33
371 30	PUMPING EQUIPMENT	TSR RUM CHOPPER PUMPS	TSR RUM CHOPPER PUMPS	0	2017	2017	6 354 00	HWV-119	1117	1 117	1 800	1 000	8 359 02
371 30 Total	PUMPING EQUIPMENT	GRINDER	GRINDER	18	1993	1993	50 108 00	HWV-119	386	1117	2 894	1 000	379 859 84
371 32	PUMPING EQUIPMENT GRINDER	GRINDER PUMPS - RESIDUE	GRINDER PUMPS - RESIDUE	18	1993	1993	36 470 41	HWV-119	386	1117	2 894	1 000	111 333 37
371 32	PUMPING EQUIPMENT GRINDER	GRINDER PUMPS - COMME	GRINDER PUMPS - COMME	1	2011	2011	7 441 39	HWV-119	752	1117	1 485	1 000	11 050 46
371 32	PUMPING EQUIPMENT GRINDER	GRINDER PUMPS - COMME	GRINDER PUMPS - COMME	1	2012	2012	7 636 85	HWV-119	787 5	1117	1 418	1 000	10 828 77
371 32	PUMPING EQUIPMENT GRINDER	GRINDER PUMPS - COMME	GRINDER PUMPS - COMME	1	2014	2014	8 345 51	HWV-119	856	1117	1 247	1 000	10 032 40
371 32 Total	PUMPING EQUIPMENT GRINDER	REPLACEMENT CHANGING	REPLACEMENT CHANGING	0	2006	2006	8 191 00	HWV-117	624	901 3	1 433	1 000	12 024 36
380 40	TREATMENT AND DISPOSAL EQUIPMENT	ADV BIOLOGICALS	ADV BIOLOGICALS	0	2012	2012	150 97	HWV-117	753	901 3	1 197	1 000	180 71
380 40	TREATMENT AND DISPOSAL EQUIPMENT	SLUDGE DRYER	SLUDGE DRYER	0	2012	2012	26 014 07	HWV-117	753	901 3	1 197	1 000	31 136 84
380 40	TREATMENT AND DISPOSAL EQUIPMENT	TANK COMPRESSOR-SEWER	TANK COMPRESSOR-SEWER	0	2012	2012	5 945 00	HWV-117	755	901 3	1 197	1 000	4 802 47

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

(U)	(D)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account Description	Description 1	Description 2	Placement Year	Estimate Year	Investment	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Costs	Reproduction Cost New (RCN)	Replacement Cost New (RCR)	Replacement Cost New (LCR)				
RCN \$	LCR \$	LCR \$	LCR \$	RCN \$	RCR \$	RCR \$	RCR \$	RCN \$	RCR \$	RCR \$	RCN \$	RCR \$	RCR \$				
Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation				
Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data	Exeter Engineers Associates Data				
Account	Account Description	Description	Description	Year	Year	Cost	Cost Index Table	Year Index	Unit Index	Cost Multiplier	RCN	RCR	LCR				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	CARBON FOR AIR SCRUUBER	U	2013	2013	14,800.00	HW-117	780.5	90.3	1.155	17,117.10	1,000	17,117.10				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEWATERING & DIGESTER	U	2013	2013	5,845.00	HW-117	780.5	90.3	1.155	6,916.98	1,000	6,916.98				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	HOSE CONNECTORS	U	2013	2013	17,270.64	HW-117	780.5	90.3	1.155	89,257.88	1,000	89,257.88				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	MUFFIN MONSTER PUMPING	U	2013	2013	16,718.00	HW-117	780.5	90.3	1.155	21,619.26	1,000	21,619.26				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	PUMP CONTROLS UPGRADE	U	2013	2013	3,576.00	HW-117	780.5	90.3	1.155	4,130.28	1,000	4,130.28				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	SLUDGE DRYER	U	2013	2013	7,743.00	HW-117	780.5	90.3	1.155	12,940.92	1,000	12,940.92				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	BLOWER SYSTEM	U	2014	2014	4,260.00	HW-117	814.5	90.3	1.107	4,737.86	1,000	4,737.86				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	BLOWER/FRATERATION UPGRADE	U	2014	2014	1,498.00	HW-117	814.5	90.3	1.107	1,624.30	1,000	1,624.30				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEMOLITION OF DIGESTER	U	2014	2014	4,320.00	HW-117	814.5	90.3	1.107	4,428.00	1,000	4,428.00				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEWATER/ DISPOSAL UPGRADE	U	2014	2014	46,050.00	HW-117	814.5	90.3	1.107	53,181.35	1,000	53,181.35				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEWATER/ DISPOSAL UPGRADE	U	2014	2014	423.00	HW-117	814.5	90.3	1.107	453.21	1,000	453.21				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEWATER/ DISPOSAL UPGRADE	U	2014	2014	55,580.00	HW-117	814.5	90.3	1.107	61,538.13	1,000	61,538.13				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DEWATER/ DISPOSAL UPGRADE	U	2014	2014	37,982.00	HW-117	814.5	90.3	1.107	42,023.93	1,000	42,023.93				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DIGESTER CLEANING	U	2012	2012	14,225.00	HW-117	814.5	90.3	1.107	15,747.98	1,000	15,747.98				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DIGESTER CLEANING	U	2014	2014	37,783.30	HW-117	814.5	90.3	1.107	41,837.18	1,000	41,837.18				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DIGESTER CLEANING	U	2014	2014	5,750.00	HW-117	814.5	90.3	1.107	6,385.25	1,000	6,385.25				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	SLUDGE DRYER	U	2014	2014	3,232.00	HW-117	814.5	90.3	1.107	3,578.38	1,000	3,578.38				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	ACTIVATOR VALVES AERATOR	U	2015	2015	38,485.00	HW-117	843.0	90.3	1.069	41,076.33	1,000	41,076.33				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	ACTIVATOR VALVES AERATOR	U	2015	2015	1,320.00	HW-117	843.0	90.3	1.069	1,417.08	1,000	1,417.08				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	AIR LIFT METER	U	2015	2015	3,608.00	HW-117	843.0	90.3	1.069	3,856.95	1,000	3,856.95				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	SANDBLASTING TANK	U	2015	2015	5,589.58	HW-117	843.0	90.3	1.069	5,957.94	1,000	5,957.94				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	SANDBLASTING SEWER	U	2015	2015	5,059.45	HW-117	843.0	90.3	1.069	5,409.09	1,000	5,409.09				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	BLOWER FOR DIGESTER	U	2016	2016	4,417.00	HW-117	867.5	90.3	1.030	4,869.28	1,000	4,869.28				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	BLOWER/ AERATION CONTROL	U	2016	2016	4,388.00	HW-117	867.5	90.3	1.030	4,749.05	1,000	4,749.05				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	COLLECTOR CHAIN PRIMER	U	2016	2016	6,191.00	HW-117	867.5	90.3	1.030	6,549.45	1,000	6,549.45				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DRYER PARTS	U	2016	2016	6,750.00	HW-117	867.5	90.3	1.030	7,130.25	1,000	7,130.25				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	DRYER PARTS	U	2016	2016	1,175.00	HW-117	867.5	90.3	1.030	1,231.83	1,000	1,231.83				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	COLLECTOR CHAIN AND ESC	U	2017	2017	6,909.00	HW-117	901.3	90.3	1.000	7,901.50	1,000	7,901.50				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	TRUCKS, TRAILERS & EQUIPMENT	U	2017	2017	6,869.00	HW-117	901.3	90.3	1.000	6,999.00	1,000	6,999.00				
380 40	TREATMENT AND DISPOSAL EQUIPMENT	TRUCKS, TRAILERS & EQUIPMENT	U	2017	2017	6,734.00	HW-117	901.3	90.3	1.000	2,773.00	1,000	2,773.00				
380 40 Total	TREATMENT AND DISPOSAL EQUIPMENT					115,401.40					575,784.83		575,784.83				
390 70	OFFICE FURNITURE AND EQUIPMENT	OFFICE FURNITURE AND EQUIPMENT	U	2011	2011	2,432.00	AJST-15	274.2	287	1.047	2,441.60	1,000	2,441.60				
390 70	OFFICE FURNITURE AND EQUIPMENT	COMPUTER - Lenovo	U	2012	2012	1,578.00	AJST-15	276.0	287	1.030	1,625.34	1,000	1,625.34				
390 70	OFFICE FURNITURE AND EQUIPMENT	Scada Upgrade	U	2012	2012	15,620.85	AJST-115	276.0	287	1.030	14,235.48	1,000	14,235.48				
390 70	OFFICE FURNITURE AND EQUIPMENT	Alarm Software	U	2013	2013	2,380.00	AJST-115	273.8	287	1.048	2,494.24	1,000	2,494.24				
390 70	OFFICE FURNITURE AND EQUIPMENT	COMPUTER	U	2013	2013	2,260.45	AJST-115	273.8	287	1.048	2,400.36	1,000	2,400.36				
390 70	OFFICE FURNITURE AND EQUIPMENT	Scada Upgrade	U	2013	2013	4,900.00	AJST-115	273.8	287	1.048	10,375.20	1,000	10,375.20				
390 70	OFFICE FURNITURE AND EQUIPMENT	Scada Upgrade	U	2014	2014	7,952.00	AJST-115	279.6	287	1.029	8,158.75	1,000	8,158.75				
390 70	OFFICE FURNITURE AND EQUIPMENT	Scada Upgrade	U	2014	2014	23,858.00	AJST-115	279.6	287	1.029	24,476.20	1,000	24,476.20				
390 70	OFFICE FURNITURE AND EQUIPMENT	COMPUTER	U	2015	2015	1,572.00	AJST-115	284.4	287	1.038	1,624.10	1,000	1,624.10				
390 70	OFFICE FURNITURE AND EQUIPMENT	Scada Upgrade	U	2015	2015	2,976.00	AJST-115	284.4	287	1.038	4,007.81	1,000	4,007.81				
390 70	OFFICE FURNITURE AND EQUIPMENT	Software - Inverter Frame	U	2015	2015	6,505.00	AJST-115	284.4	287	1.038	6,647.76	1,000	6,647.76				
390 70	OFFICE FURNITURE AND EQUIPMENT	COMPUTER - ETHERNET SV	U	2016	2016	99.00	AJST-115	285.2	287	1.006	80.53	1,000	80.53				
390 70	OFFICE FURNITURE AND EQUIPMENT	COMPUTER - ETHERNET SV	U	2016	2016	6,350.00	AJST-115	285.2	287	1.006	5,382.10	1,000	5,382.10				
390 70	OFFICE FURNITURE AND EQUIPMENT	Software - Res. Age Program	U	2016	2016	7,380.00	AJST-115	285.2	287	1.006	7,424.28	1,000	7,424.28				
390 70 Total	OFFICE FURNITURE AND EQUIPMENT					96,013.30					61,282.84		61,282.84				
391 70	TRANSPORTATION EQUIPMENT	TRANSPORTATION EQUIPMENT	U	2001	2001	21,445.00	AJST-14	286	301	1.132	24,271.22	1,000	24,271.22				
391 70	TRANSPORTATION EQUIPMENT	FUEL SYSTEM REPLACEMENT	U	2014	2014	3,182.00	AJST-14	287	301	1.043	3,137.92	1,000	3,137.92				
391 70	TRANSPORTATION EQUIPMENT		U	2015	2015		AJST-14	295	301	1.022		1,000					
391 70 Total	TRANSPORTATION EQUIPMENT					24,627.00					27,409.14		27,409.14				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	TOOLS SHOP AND GARAGE EQUIPMENT	U	2006	2006	1,069.71	AJST-17	416	519	1.248	1,372.44	1,000	1,372.44				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Two (2) Vsa Mode 401 300r	U	1997	1997	2,156.89	AJST-17	359	519	1.446	3,086.70	1,000	3,086.70				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Two (2) Humble Trade Pump	U	2004	2004	1,660.67	AJST-17	372	519	1.395	2,344.53	1,000	2,344.53				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Res. Age System Thru Hole	U	2004	2004	1,621.76	AJST-17	387	519	1.341	2,174.81	1,000	2,174.81				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Target Concrete Saw	U	2004	2004	5,775.56	AJST-17	410	519	1.248	6,334.30	1,000	6,334.30				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Two (2) Vsa HP Air Subst	U	2006	2006	2,711.45	AJST-17	416	519	1.248	3,383.30	1,000	3,383.30				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	GAS MASS FLOWMETER	U	2012	2012	4,995.67	AJST-17	485	519	1.070	5,345.37	1,000	5,345.37				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	PORTABLE SAMPLER	U	2013	2013	7,225.26	AJST-17	494	519	1.051	7,589.75	1,000	7,589.75				
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	SAW/CARP	U	2013	2013	1,987.70	AJST-17	494	519	1.051	1,988.67	1,000	1,988.67				

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

(0)	(01)	(02)	(03)	(04)	(05)	(1)	(15)	(2)	(25)	(3)	(30)	(30)	(4)	(5)	(50)
Account	Account Description	Description 1	Description 2	Placement Year	Earliest Trend Year	Investment	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN) \$	RCN \$	RCN \$	RCN \$	RCN \$
						UC \$									
		Input	Input	Year1	Year2	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input
Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date	Exeter Engineers Assessment Date
Account	Account Desc	Description	Description	Year1	Year2	UC	UC	Year Index	App Cost Index	Cost Translator	RCN	RCN	RCN	RCN	RCN
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	SPECTROPHOTOMETER		2013	2013	1 951 25	AUST-7	494	519	1 051	4 152 76	1 000	4 152 76	1 000	4 152 76
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Pro Pipe Locator		2014	2014	1 930 00	AUST-7	503	519	1 032	1 961 76	1 000	1 961 76	1 000	1 961 76
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	Pro Pipe Locator		2014	2014	1 660 00	AUST-7	503	519	1 032	2 045 36	1 000	2 045 36	1 000	2 045 36
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	4 Subaru 1.5w Pump		2015	2015	1 874 00	AUST-17	500	519	070	1 911 48	1 000	1 911 48	1 000	1 911 48
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	FUEL DISPENSER TANK MOUNTED		2015	2015	3 272 00	AUST-17	500	519	1 500	3 337 44	1 000	3 337 44	1 000	3 337 44
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	HOSE SEWER		2015	2015	861 00	AUST-17	500	519	060	874 22	1 000	874 22	1 000	874 22
393 70	TOOLS SHOP AND GARAGE EQUIPMENT	HOSE SEWER		2015	2015	274 00	AUST-17	500	519	1 020	276 46	1 000	276 46	1 000	276 46
393 70 Total	TOOLS SHOP AND GARAGE EQUIPMENT					47 074 90					47 094 46		47 094 46		47 094 46
394 70	Laboratory Equipment	CENTRIFUGE		2002	2002	2 314 89	AUST-17	376	519	1 380	3 164 55	1 000	3 164 55	1 000	3 164 55
394 70	Laboratory Equipment	HONEYWELL HUMIDOR V1		2002	2002	962 87	AUST-17	376	519	1 380	1 370 16	1 000	1 370 16	1 000	1 370 16
394 70	Laboratory Equipment	FISHER INCUBATOR 2324		2003	2003	3 318 35	AUST-17	378	519	1 373	4 356 06	1 000	4 356 06	1 000	4 356 06
394 70	Laboratory Equipment	TRU (2) FISHER LABORATORY		2003	2003	4 807 84	AUST-17	378	519	1 373	3 855 16	1 000	3 855 16	1 000	3 855 16
394 70	Laboratory Equipment	DENVER INSTRUMENT R10		2004	2004	4 127 75	AUST-17	387	519	1 341	2 852 51	1 000	2 852 51	1 000	2 852 51
394 70	Laboratory Equipment	MELAN B LANGE MDL 43		2004	2004	2 976 07	AUST-17	387	519	1 341	3 669 51	1 000	3 669 51	1 000	3 669 51
394 70	Laboratory Equipment	HACH DR 3000 SPECTROPH		2005	2005	87 89	AUST-17	403	519	1 286	2 410 99	1 000	2 410 99	1 000	2 410 99
394 70	Laboratory Equipment	TWO (2) MICROSCOPES		2005	2005	3 195 82	AUST-17	403	519	1 286	4 116 22	1 000	4 116 22	1 000	4 116 22
394 70	Laboratory Equipment	ACCUMET PH MEASURER		2006	2006	518 42	AUST-17	416	519	1 248	1 694 96	1 000	1 694 96	1 000	1 694 96
394 70	Laboratory Equipment	HOSHIZAK ICE MACHINE		2006	2006	1 137 93	AUST-17	416	519	1 248	3 018 14	1 000	3 018 14	1 000	3 018 14
394 70	Laboratory Equipment	MILLIPORE LV STERILIZER		2006	2006	1 607 74	AUST-17	416	519	1 248	2 036 46	1 000	2 036 46	1 000	2 036 46
394 70	Laboratory Equipment	TRU (2) SIGMA SPECTROPH		2006	2006	3 751 35	AUST-17	416	519	1 248	4 081 72	1 000	4 081 72	1 000	4 081 72
394 70	Laboratory Equipment	HACH DR 3000 SPECTROPH		2007	2007	3 408 39	AUST-17	416	519	1 248	4 113 93	1 000	4 113 93	1 000	4 113 93
394 70	Laboratory Equipment	LAIR REFRIGERATOR 12505		2007	2007	2 168 51	AUST-17	430	519	1 207	2 851 16	1 000	2 851 16	1 000	2 851 16
394 70	Laboratory Equipment	MILLIPORE INCUBATOR		2007	2007	345 42	AUST-17	430	519	1 207	1 623 62	1 000	1 623 62	1 000	1 623 62
394 70	Laboratory Equipment	TRU (2) SIGMA SPECTROPH		2007	2007	2 424 94	AUST-17	430	519	1 207	2 932 21	1 000	2 932 21	1 000	2 932 21
394 70	Laboratory Equipment	CAMERA/CABLE		2008	2008	8 806 60	AUST-17	445	519	1 186	10 260 80	1 000	10 260 80	1 000	10 260 80
394 70	Laboratory Equipment	GAS METER		2008	2008	2 478 00	AUST-17	445	519	1 186	2 866 39	1 000	2 866 39	1 000	2 866 39
394 70	Laboratory Equipment	LABORATORY DISHWASHER		2008	2008	7 065 84	AUST-17	445	519	1 186	8 821 54	1 000	8 821 54	1 000	8 821 54
394 70	Laboratory Equipment	NEW SAMPLER		2011	2011	1 173 90	AUST-17	474	519	1 405	3 664 44	1 000	3 664 44	1 000	3 664 44
394 70	Laboratory Equipment	GLS SAMPLER		2014	2014	2 367 66	AUST-17	503	519	1 032	2 442 74	1 000	2 442 74	1 000	2 442 74
394 70	Laboratory Equipment	INCUBATOR		2014	2014	3 574 06	AUST-17	503	519	1 032	3 608 37	1 000	3 608 37	1 000	3 608 37
394 70	Laboratory Equipment	NEW DISHWASHER		2014	2014	4 570 00	AUST-17	503	519	1 032	4 676 24	1 000	4 676 24	1 000	4 676 24
394 70	Laboratory Equipment	GLS SAMPLER		2015	2015	2 261 00	AUST-17	509	519	1 020	2 326 82	1 000	2 326 82	1 000	2 326 82
394 70 Total	Laboratory Equipment					93 800 59					96 130 85		96 130 85		96 130 85
395 70	Power Operated Equipment	UTILITY TRACTOR		2015	2015	-	AUST-18	515	324	026	-	000	-	000	-
395 70 Total	Power Operated Equipment					-					-		-	000	-
396 70	COMMUNICATION EQUIPMENT	RADIO (BASE STATION)		2011	2011	3 990 00	USBL52	96	94	0 970	3 912 08	000	3 912 08	000	3 912 08
396 70 Total	COMMUNICATION EQUIPMENT					3 990 00					3 912 08		3 912 08		3 912 08
397 70	MISCELLANEOUS EQUIPMENT	FURNACE		2002	2002	611 76	AUST-18	272	324	161	1 085 97	000	1 085 97	000	1 085 97
397 70	MISCELLANEOUS EQUIPMENT	WASHER/DRYER		2008	2008	663 00	AUST-18	280	324	113	1 125 07	000	1 125 07	000	1 125 07
397 70	MISCELLANEOUS EQUIPMENT	REFRIGERATOR		2014	2014	2 260 00	AUST-18	307	324	055	2 346 63	000	2 346 63	000	2 346 63
397 70 Total	MISCELLANEOUS EQUIPMENT					4 534 76					4 601 67		4 601 67		4 601 67
Grand Total						20 464 542 4					20 665 527 90		20 665 527 90		20 665 527 90



Penobscot/American Water Company
 Exter Wastewater System
 Exter Township, Berks County, Pennsylvania
 Wastewater System
 Investor-Owned Utility

Summary of Original Cost, Calculated Depreciation Reserve and Depreciated Original Cost
 As of January 1, 2018

Account No.	Description	Original Cost as of 12-31-17	New & Survivor Curve and Life	Original Cost Weighted Average Age	Original Cost Weighted Average Age	Calculated Reserve 12-31-17	Original Cost Weighted Average Remaining Life	Original Cost Weighted Average Remaining Life	Original Cost Weighted Average Total Life Expectancy	Original Cost Weighted Average Total Life Expectancy	Condition	Depreciated Original Cost 12-31-17
353.20	Land & Land Rights - Collection	336,068.94	0	22.16	7,446,401.67	-	-	-	-	-	100.00%	336,068.94
353.30	Land & Land Rights - Pumping	63,244.16	0	21.38	1,351,521.23	-	-	-	-	-	100.00%	63,244.16
353.40	Land & Land Rights - Treatment	735,535.35	0	30.28	22,271,487.60	-	-	-	-	-	100.00%	735,535.35
354.30	Structures & Improvements - Pumping	1,000,471.00	25	22.64	22,655,266.52	494,564.10	23.11	23,123,166.61	45.76	45,778,433.10	50.57%	505,906.90
354.40	Structures & Improvements - Treatment	36,457,689.12	25	16.10	951,406,011.63	16,807,882.68	30.03	1,094,777,508.87	56.12	2,046,183,520.49	53.90%	19,650,286.44
355.30	Generating Equipment - Pumping	46,258.60	25	24.50	1,133,335.71	29,911.27	13.39	618,402.65	37.89	1,752,738.35	35.34%	16,347.33
360.21	Collection Sewers - Force - Manholes	724,186.15	25	28.57	13,450,599.95	221,227.55	42.18	30,512,588.82	90.71	48,866,184.79	88.45%	502,958.60
360.23	Collection Sewers - Force - Manholes	165,868.09	25	28.29	3,115,889.03	47,332.66	48.99	7,793,607.99	85.77	10,908,507.02	71.46%	118,335.43
361.21	Collection Sewers - Gravity - Mains	19,360,150.51	25	28.30	434,647,217.96	5,255,554.87	53.65	824,069,931.72	81.85	1,258,717,149.57	65.78%	10,104,585.65
361.22	Collection Sewers - Gravity - Mains Retiring	161,438.00	25	9.18	1,482,408.00	38,503.24	70.93	11,450,594.13	80.11	12,933,009.13	88.54%	142,934.76
361.23	Collection Sewers - Gravity - Manholes	4,110,550.96	25	27.85	114,873,283.78	1,391,863.55	53.91	221,609,212.78	81.86	336,482,486.54	66.14%	2,718,687.41
361.24	Collection Sewers - Gravity - Manholes Repairs	10,179.00	25	2.50	25,447.50	317.58	77.64	790,297.56	80.14	815,745.06	96.88%	8,861.42
363.20	Service Laterals	8,107,147.46	25	27.21	220,621,329.93	3,767,719.93	30.42	246,627,193.29	57.63	467,248,523.18	53.53%	4,339,427.53
364.20	Flow Measuring Devices	28,200.34	25	10.50	296,229.38	8,162.66	25.20	710,629.25	35.70	1,006,858.58	71.05%	20,037.48
365.20	Flow Measuring Installations	95,497.64	25	26.50	2,580,687.48	65,888.56	11.92	1,138,931.88	38.42	3,669,019.32	31.03%	29,629.08
371.30	Pumping Equipment	180,108.68	25	14.72	2,651,420.70	71,116.64	21.74	3,915,753.07	56.46	6,567,171.76	60.51%	108,992.04
371.32	Pumping Equipment - Grinder	61,593.68	25	17.25	1,061,055.98	28,258.37	18.60	1,207,301.84	36.83	2,268,355.80	54.12%	33,337.31
380.40	Treatment and Disposal Equipment	515,491.49	25	5.61	1,861,100.94	41,314.36	41.42	21,350,729.24	45.03	23,211,830.17	91.89%	474,176.93
390.70	Office Furniture and Equipment	80,033.30	12	3.66	326,187.71	26,695.39	8.51	757,444.75	12.17	1,083,629.46	70.01%	62,315.31
391.70	Transportation Equipment	24,623.01	10	14.82	364,913.67	22,405.94	0.95	29,389.86	15.77	388,313.53	4.00%	2,217.07
393.70	Tools, Shop, & Garage Equipment	42,074.30	25	7.58	311,061.42	8,737.79	27.93	1,174,980.63	35.32	1,486,042.02	79.23%	33,336.51
394.70	Laboratory Equipment	80,810.59	20	9.39	750,660.53	36,212.04	11.35	917,262.56	20.74	1,675,923.03	55.19%	44,598.55
395.70	Power Operated Equipment	-	15	-	-	-	-	-	-	-	0.00%	-
396.70	Communications Equipment	3,996.00	12	6.50	23,974.00	2,068.01	6.06	24,215.76	12.58	50,188.76	48.25%	1,827.98
397.70	Miscellaneous Equipment	4,170.76	20	7.55	31,496.76	1,495.63	13.04	54,373.40	28.88	85,870.18	64.14%	2,875.13
		\$ 68,404,345		26.38	\$ 1,804,699,393.05	\$ 28,346,713	36.44	\$ 2,492,647,927	62.37	\$ 4,266,277,509	58.56%	\$ 40,057,634

Account No.	Description	Original Cost as of 12-31-17	New & Survivor Curve and Life	Original Cost Weighted Average Age	Original Cost Weighted Average Age	Calculated Reserve	Original Cost Weighted Average Remaining Life	Original Cost Weighted Average Remaining Life	Original Cost Weighted Average Total Life Expectancy	Original Cost Weighted Average Total Life Expectancy	Condition	Depreciated Original Cost
353	Land & Land Rights	1,134,848.45	0	27.38	31,069,810.50	-	0.00	-	0.00	-	100.00%	1,134,848.45
354.3	Structures & Improvements - Pumping	1,000,471.00	45	22.64	22,655,266.52	494,564.10	23.11	23,123,166.61	45.76	45,778,433.10	50.57%	505,906.90
354.4	Structures & Improvements - Treatment	36,457,689.12	25	16.10	951,406,011.63	16,807,882.68	30.03	1,094,777,508.87	56.12	2,046,183,520.49	53.90%	19,650,286.44
355	Generating Equipment	46,258.60	25	24.50	1,133,335.71	29,911.27	13.39	618,402.65	37.89	1,752,738.35	35.34%	16,347.33
360	Collection Sewers - Force	890,054.24	60	18.61	16,566,498.98	268,560.21	43.04	48,306,196.61	61.65	54,875,485.76	69.83%	623,484.03
361	Collection Sewers - Gravity	19,642,318.48	80	28.05	551,028,358.24	6,666,239.24	53.86	1,057,820,036.19	81.91	1,608,946,394.30	66.06%	12,376,079.24
363	Service Laterals	8,107,147.46	58	27.21	220,621,329.93	3,767,719.93	30.42	246,627,193.29	57.63	467,248,523.18	53.53%	4,339,427.53
364	Flow Measuring Equipment	123,687.98	38	22.85	2,826,316.81	74,031.42	14.95	1,848,961.13	37.80	4,675,877.90	40.15%	49,666.56
371	Pumping Equipment	241,702.36	80	15.36	3,712,474.68	89,379.01	21.20	5,123,052.91	36.56	8,835,527.56	58.89%	142,329.35
380	Treatment Equipment	515,491.49	45	5.61	1,861,100.94	41,314.36	41.42	21,350,729.24	45.03	23,211,830.17	91.89%	474,176.93
390	Support Assets	244,685.96	13	7.43	1,818,289.11	97,614.80	12.06	2,951,678.96	19.49	4,769,867.98	60.11%	147,071.26
		68,404,345.14		26.38	1,804,699,393.05	28,346,713.22	36.44	2,492,647,926.66	62.37	4,266,277,509.78	58.56%	40,057,639.92

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Determination of the Depreciated Original Cost

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
Account	Description	Placement Year	Original Cost	Retirement Depreciation Category	Normal Service Life (NSL)	Age	Age as % of NSL	Loss Lookup	GWSS Gordon Percent New	Normal Remaining Life	Total Life Expectancy	Theoretical Reserve Percent	Theoretical Reserve	Depreciated Original Cost	OC Weighted Normal Remaining Life	OC Weighted Total Life Expectancy	
353.2	LAND AND LAND RIGHTS - COLLECTION	1968	37,581.96	Non-Depr	0	0	0					0	0	37,581.96	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1975	6,302.28	Non-Depr	0	0	0					0	0	6,302.28	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1980	6,715.60	Non-Depr	0	0	0					0	0	6,715.60	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1985	1,069.85	Non-Depr	0	0	0					0	0	1,069.85	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1991	4,481.18	Non-Depr	0	0	0					0	0	4,481.18	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1995	818.17	Non-Depr	0	0	0					0	0	818.17	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1996	10,634.90	Non-Depr	0	0	0					0	0	10,634.90	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1997	867.41	Non-Depr	0	0	0					0	0	867.41	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	1998	126,808.41	Non-Depr	0	0	0					0	0	126,808.41	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	2005	15,285.86	Non-Depr	0	0	0					0	0	15,285.86	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	2005	76,604.25	Non-Depr	0	0	0					0	0	76,604.25	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	2010	45,449.75	Non-Depr	0	0	0					0	0	45,449.75	0	0	
353.2	LAND AND LAND RIGHTS - COLLECTION	2012	121.22	Non-Depr	0	0	0					0	0	121.22	0	0	
353.20 Total	LAND AND LAND RIGHTS - COLLECTION		336,068.64			0	0			0.00	0.00	0	0	336,068.64	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	1992	4,182.9	Non-Depr	0	0	0					0	0	4,182.9	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	1992	3,817.42	Non-Depr	0	0	0					0	0	3,817.42	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	1992	2,996.17	Non-Depr	0	0	0					0	0	2,996.17	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	1993	14,194.59	Non-Depr	0	0	0					0	0	14,194.59	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	1998	92.99	Non-Depr	0	0	0					0	0	92.99	0	0	
353.3	LAND AND LAND RIGHTS - PUMPING	2006	16,159.88	Non-Depr	0	0	0					0	0	16,159.88	0	0	
353.30 Total	LAND AND LAND RIGHTS - PUMPING		63,244.6			0	0			0.00	0.00	0	0	63,244.6	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1965	110,204.70	Non-Depr	0	0	0					0	0	110,204.70	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1987	36,988.92	Non-Depr	0	0	0					0	0	36,988.92	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1977	53,000.00	Non-Depr	0	0	0					0	0	53,000.00	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1984	150,000.00	Non-Depr	0	0	0					0	0	150,000.00	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1993	23,493.73	Non-Depr	0	0	0					0	0	23,493.73	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	1998	325,000.00	Non-Depr	0	0	0					0	0	325,000.00	0	0	
353.4	LAND AND LAND RIGHTS - TREATMENT	2003	36,900.00	Non-Depr	0	0	0					0	0	36,900.00	0	0	
353.40 Total	LAND AND LAND RIGHTS - TREATMENT		735,535.35			0	0			0.00	0.00	0	0	735,535.35	0	0	
354.3	STRUCTURES AND IMPROVEMENTS - PUMPING	1993	489,998.03	R4.0	45	24.50	54	R4.0054	0.47598	21.42	45.92	0.53354	250,761.88	219,236.35	11,514,902.74	10,067,314.36	21,582,217.70
354.3	STRUCTURES AND IMPROVEMENTS - PUMPING	1993	108,841.9	R4.0	45	24.50	54	R4.0054	0.47598	21.42	45.92	0.53354	58,071.13	50,770.06	2,866,609.18	2,331,378.29	4,997,987.44
354.3	STRUCTURES AND IMPROVEMENTS - PUMPING	1993	108,841.9	R4.0	45	24.50	54	R4.0054	0.47598	21.42	45.92	0.53354	58,071.13	50,770.06	2,866,609.18	2,331,378.29	4,997,987.44
354.3	STRUCTURES AND IMPROVEMENTS - PUMPING	1997	55,313.20	R4.0	45	20.50	46	R4.0046	0.54887	24.7	43.2	0.43254	25,086.75	30,226.45	1,133,920.60	1,398,230.04	2,500,158.84
354.3	STRUCTURES AND IMPROVEMENTS - PUMPING	2004	148,638.25	R4.0	45	13.50	30	R4.0036	0.70211	31.59	43.09	0.2894	44,502.28	104,155.92	2,008,615.10	4,895,480.74	6,702,096.44
354.30 Total	STRUCTURES AND IMPROVEMENTS - PUMPING		1,600,471.00			22.64				23.1	45.78		464,564.10	505,908.90	22,655,288.52	23,123,166.61	45,778,433.10
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	1967	2,353,885.64	R4.0	55	50.50	92	R4.0092	0.8878	10.38	60.88	0.8295	1,952,548.14	401,337.50	119,871,224.82	24,433,332.94	143,304,557.76
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	1978	4,859,804.76	R4.0	55	39.50	72	R4.0072	0.32857	17.98	57.46	0.69743	3,398,648.77	1,527,155.99	102,989,288.02	87,746,053.46	280,738,341.51
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	1986	91,897.59	R4.0	55	3.50	67	R4.0057	0.44855	25.73	56.23	0.3602	51,481.03	40,410.56	2,894,774.00	2,272,827.40	5,167,601.49
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	1992	23,110,970.29	R4.0	55	23.50	46	R4.0046	0.54887	30.19	55.89	0.43790	10,582,282.19	12,528,088.10	585,329,742.40	897,720,193.05	1,287,049,935.45
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2002	369,734.00	R4.0	55	15.50	28	R4.0028	0.71272	36.69	55.19	0.28085	104,458.74	280,277.21	6,040,877.00	15,468,542.46	21,504,419.46
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2010	5,436,302.84	R4.0	55	7.50	14	R4.0014	0.86031	47.32	54.82	0.13681	743,740.59	4,692,562.25	40,772,271.30	257,245,050.39	298,018,121.69
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2013	10,935.00	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	862.84	10,042.16	49,207.50	593,420.35	602,627.85
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2013	42,088.00	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	3,483.84	39,184.18	192,068.00	2,158,427.48	2,351,435.48
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2014	19,860.00	R4.0	55	3.50	6	R4.0006	0.94008	51.7	55.2	0.0834	1,490.59	18,814.41	29,581.00	1,027,766.30	1,057,347.30
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2014	11,827.00	R4.0	55	3.50	6	R4.0006	0.94008	51.7	55.2	0.0834	749.05	11,077.05	41,394.50	811,455.90	852,850.40
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2016	4,264.00	R4.0	55	1.50	3	R4.0003	0.97003	53.35	54.85	0.02735	1.62	4,147.38	6,396.00	227,484.40	233,880.40
354.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	2018	99,500.00	R4.0	55	1.50	3	R4.0003	0.97003	53.35	54.85	0.02735	2,721.33	96,778.67	49,250.00	5,308,325.00	5,457,575.00
354.40 Total	STRUCTURES AND IMPROVEMENTS - TREATMENT		36,451,969.2			26.16				30.03	58.12		16,837,882.68	16,650,286.44	1,694,777,508.87	1,694,183,525.45	2,446,183,525.45
355.3	POWER GENERATION EQUIPMENT - PUMPING	1993	29,873.00	R3.0	35	24.50	70	R3.0070	0.39281	13.39	37.89	0.64661	15,436.52	14,436.52	84,888.50	310,859.47	400,547.97
355.3	POWER GENERATION EQUIPMENT - PUMPING	1993	15,859.19	R3.0	35	24.50	70	R3.0070	0.39281	13.39	37.89	0.64661	15,436.52	14,436.52	84,888.50	310,859.47	400,547.97
355.3	POWER GENERATION EQUIPMENT - PUMPING	1993	6,526.41	R3.0	35	24.50	70	R3.0070	0.39281	13.39	37.89	0.64661	15,436.52	14,436.52	84,888.50	310,859.47	400,547.97
355.30 Total	POWER GENERATION EQUIPMENT - PUMPING		49,258.60			24.50				26.78	75.78		30,873.04	28,873.04	169,777.00	169,777.00	269,695.94
360.211	COLLECTION SEWERS - FORCE MAINS	1990	17,232.23	R3.0	80	27.50	46	R3.0046	0.5715	34.29	61.79	0.44596	7,870.71	9,564.52	473,989.63	560,098.04	664,884.86
360.213	COLLECTION SEWERS - FORCE MAINS	1999	861.31	R3.0	80	22.50	38	R3.0038	0.64088	38.45	60.95	0.36816	31,752.90	54,261.01	1,935,319.88	3,307,234.84	5,245,547.81
360.213	COLLECTION SEWERS - FORCE MAINS	1999	327,160.55	R3.0	80	22.50	38	R3.0038	0.64088	38.45	60.95	0.36816	121,069.92	208,896.63	7,379,112.30	12,810,933.95	19,889,195.52
360.211	COLLECTION SEWERS - FORCE MAINS	2005	11,076.25	R3.0	80	12.50	21	R3.0021	0.74673	47.8	61.3	0.2073	2,204.86	6,775.39	138,378.03	529,157.95	687,536.08
360.211	COLLECTION SEWERS - FORCE MAINS	2005	281,906.21	R3.0	80	12.50	21	R3.0021	0.74673	47.8	61.3	0.2073	58,439.16	223,467.05	3,923,827.63	13,475,116.84	16,998,844.48
360.21 Total	COLLECTION SEWERS - FORCE MAINS		724,866.15			18.57				42.13	60.71		221,227.55	502,958.60	13,450,599.95	30,512,589.82	43,963,189.73

**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

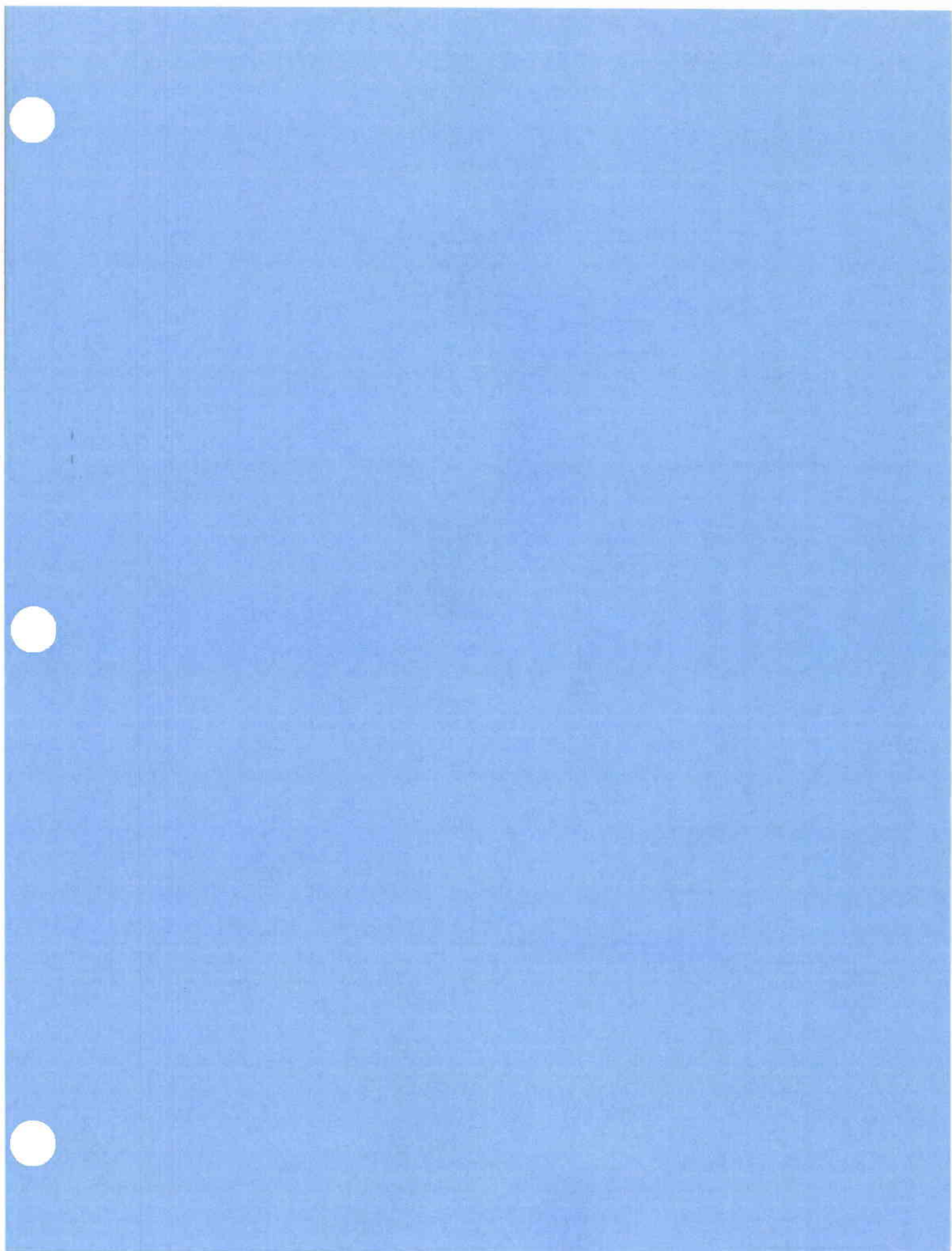
Determination of the Depreciated Original Cost

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Account	Description	Placement Year	Original Costs	Replacement Depreciation Type	Normal Service Life (INSL)	Age	Age as % of NSL	Loss Lookup	Constr. Percent of New	Normal Remaining Life	Total Life Expectancy	Theoretical Reserve Percent	Theoretical Reserve	Depreciated Original Cost	OC Weighted Normal Remaining Life	OC Weighted Total Life Expectancy
360 23	COLLECTION SEWERS - FORCE - MANHOLES	1990	96 128 87 R3.0	R3.0	85	27.50	32	66.88	42 R3.0042	0.66583	59.58	85.85	1 062 84	1 111 27 20	156 255 87	270 488 07
360 23	COLLECTION SEWERS - FORCE - MANHOLES	1960	63 035 34 R3.0	R3.0	65	2.50	19	83.0019	0.8568	53.02	65.52	0.16078	12 140 35	51 494 90	795 441 75	4 69 387 40
360 23 Total	COLLECTION SEWERS - FORCE - MANHOLES		165 868 09			18.79				49.59	67.77		47 332 66	118 535 43	3 115 899 03	9 069 507 02
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	22 594 31 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	13 580 51	6 008 80	1 163 808 97	771 565 99
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	1 822 426 06 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	1 365 788 34	726 637 72	83 584 942 09	158 000 792 04
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	17 459 45 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	10 522 07	6 977 38	901 22 88	597 628 22
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	8 258 92 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	4 665 92	3 263 00	425 334 38	282 242 12
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1968	87 77 48 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	40 719 56	27 00 00	3 487 455 10	2 312 887 86
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1968	81 114 37 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	46 772 45	32 34 92	4 177 360 06	2 770 465 74
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	98 530 85 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	105 869 05	70 203 75	9 067 739 20	6 012 886 7
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	57 860 37 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	34 760 28	23 070 00	2 979 809 08	1 954 627 84
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	36 751 63 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	22 098 14	14 653 69	1 802 719 25	1 255 074 99
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	9 936 34 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	4 170 68	2 785 69	357 221 51	594 097 52
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	75 303 97 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	105 409 77	69 49 70	9 128 194 46	5 986 830 58
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1966	98 530 85 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	99 244 51	69 286 14	5 674 328 48	3 364 821 70
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1970	99 929 53 R3.0	R3.0	80	51.50	59	R3.0059	0.4853	37.22	84.72	0.56067	96 027 49	43 602 04	4 746 452 88	3 716 377 11
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1975	552 034 58 R3.0	R3.0	80	42.50	53	R3.0053	0.51325	41.06	83.56	0.50662	280 775 85	271 258 75	23 461 469 85	22 666 536 85
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1975	19 769 28 R3.0	R3.0	80	42.50	53	R3.0053	0.51325	41.06	83.56	0.50662	10 055 05	9 714 23	840 164 40	1 451 921 24
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1980	114 578 50 R3.0	R3.0	80	37.50	47	R3.0047	0.58303	45.64	82.54	0.45433	52 058 45	42 522 03	4 296 493 75	5 180 815 84
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1980	24 537 71 R3.0	R3.0	80	37.50	47	R3.0047	0.58303	45.64	82.54	0.45433	11 148 22	13 359 49	820 164 13	1 051 178 46
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1980	45 272 27 R3.0	R3.0	80	37.50	47	R3.0047	0.58303	45.64	82.54	0.45433	20 508 55	24 703 72	1 697 770 13	2 039 063 04
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1985	202 269 86 R3.0	R3.0	80	32.50	41	R3.0041	0.61453	49.16	81.66	0.39799	90 561 38	121 768 48	6 573 770 45	9 943 588 32
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1985	816 573 23 R3.0	R3.0	80	32.50	41	R3.0041	0.61453	49.16	81.66	0.39799	324 987 98	491 585 25	26 538 829 98	40 142 739 96
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1985	83 371 79 R3.0	R3.0	80	32.50	41	R3.0041	0.61453	49.16	81.66	0.39799	33 181 14	50 160 65	2 709 583 18	4 088 557 26
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1987	95 065 70 R3.0	R3.0	80	30.50	38	R3.0038	0.64088	51.27	81.77	0.373	24 269 51	40 796 19	1 984 503 85	3 335 918 44
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1987	44 515 04 R3.0	R3.0	80	30.50	38	R3.0038	0.64088	51.27	81.77	0.373	128 504 11	216 010 93	10 507 708 72	17 063 222 16
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1990	240 876 18 R3.0	R3.0	80	27.50	34	R3.0034	0.6766	54.13	81.83	0.33689	41 149 79	13 028 39	6 624 177 45	13 028 390 01
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1990	2 110 437 70 R3.0	R3.0	80	27.50	34	R3.0034	0.6766	54.13	81.83	0.33689	778 363 36	1 532 074 31	63 537 036 75	129 063 952 70
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1992	9 445 80 R3.0	R3.0	80	25.50	32	R3.0032	0.68469	55.58	81.08	0.3145	2 870 72	6 475 14	1 240 859 43	525 000 95
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1992	285 425 80 R3.0	R3.0	80	25.50	32	R3.0032	0.69469	55.58	81.08	0.3145	89 768 58	195 459 30	7 278 354 84	15 863 959 29
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	46 803 62 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	13 776 51	35 626 71	1 116 081 26	1 401 384 26
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	251 321 82 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	80 802 72	181 510 70	5 654 740 95	10 704 839 66
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	4 589 612 16 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	1 274 718 86	3 114 893 24	103 266 272 25	268 538 476 22
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	15 959 32 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	4 432 26	11 526 06	359 082 20	333 721 96
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	35 566 14 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	9 878 14	25 688 00	800 238 15	2 086 474 85
361 212	COLLECTION SEWERS - GRAVITY - MAINS	1995	37 664 89 R3.0	R3.0	80	22.50	28	R3.0028	0.73133	58.51	81.01	0.27774	10 460 99	27 203 69	847 455 30	2 203 760 43
361 212	COLLECTION SEWERS - GRAVITY - MAINS	2000	379 942 51 R3.0	R3.0	80	17.50	22	R3.0022	0.78729	62.95	80.48	0.21745	82 618 50	267 324 01	6 644 993 93	23 928 779 25
361 212	COLLECTION SEWERS - GRAVITY - MAINS	2005	1 276 091 45 R3.0	R3.0	80	12.50	16	R3.0016	0.8443	67.58	80.04	0.15617	59 755 71	1079 335 74	15 568 643 13	86 386 036 55
361 212	COLLECTION SEWERS - GRAVITY - MAINS	2010	224 452 48 R3.0	R3.0	80	7.50	9	R3.0009	0.91187	72.95	80.45	0.09323	20 925 70	203 280 78	1 653 380 42	16 373 808 42
361 212	COLLECTION SEWERS - GRAVITY - MAINS	2012	51 478 96 R3.0	R3.0	80	5.50	7	R3.0007	0.93195	74.51	80.01	0.06874	3 538 66	47 940 30	283 134 28	3 835 897 31
361 212	COLLECTION SEWERS - GRAVITY - MAINS	2012	660 282 00 R3.0	R3.0	80	5.50	7	R3.0007	0.93195	74.51	80.01	0.06874	45 387 78	614 694 22	3 631 551 02	52 829 162 82
361 21 Total	COLLECTION SEWERS - GRAVITY - MAINS		5 360 150 52			28.30				53.65	81.95		6 256 554 87	10 104 995 65	434 647 217 96	824 089 931 72
361 22	COLLECTION SEWERS - GRAVITY - MAIN RELINING	2008	148 825 00 R3.0	R3.0	80	18.50	12	R3.0012	0.88279	70.62	80.12	0.11857	17 822 47	151 002 53	1 441 897 50	10 465 887 56
361 22	COLLECTION SEWERS - GRAVITY - MAIN RELINING	2012	12 813 00 R3.0	R3.0	80	5.50	7	R3.0007	0.94135	74.51	80.01	0.06874	880 77	11 932 23	70 471 50	1 025 168 81
361 22 Total	COLLECTION SEWERS - GRAVITY - MAIN RELINING		161 438 00			11.8				70.93	80.11		18 503 24	162 934 76	1 482 400 00	11 450 594 13
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1960	598 282 49 R3.0	R3.0	80	51.50	64	R3.0044	0.42683	34.15	85.85	0.60128	359 735 30	238 547 9	30 811 548 24	20 431 347 03
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1970	24 194 89 R3.0	R3.0	80	47.50	59	R3.0049	0.46653	37.22	84.72	0.56067	3 965 33	10 426 52	1 148 295 38	900 532 32
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1975	150 289 15 R3.0	R3.0	80	42.50	53	R3.0053	0.51325	41.06	83.56	0.50662	76 840 07	73 849 08	8 281 788 88	5 170 772 56
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1980	44 262 12 R3.0	R3.0	80	37.50	47	R3.0047	0.58303	45.64	82.54	0.45433	20 109 88	24 152 84	1 659 852 00	1 093 592 91
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1985	297 587 45 R3.0	R3.0	80	32.50	41	R3.0041	0.61453	49.16	81.66	0.39799	116 428 87	179 138 58	6 070 942 13	14 828 415 84
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1987	111 081 54 R3.0	R3.0	80	30.50	38	R3.0038	0.64088	51.27	81.77	0.373	41 433 41	69 648 13	3 387 986 97	5 695 180 56
36 23	COLLECTION SEWERS - GRAVITY - MANHOLES	1990	665 251 72 R3.0	R3.0	80	27.50	34	R3.0034	0.6766</							

**Pennsylvania American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Determination of the Depreciated Original Cost

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)			
Account	Description	Placement Year	Original Costs	Retirement Disposition (lowa type)	Normal Service Life (NBL)	Age	Age as % of NBL	lowa Lookup	lowa Condition Percent of New	Normal Remaining Life	Total Life Expectancy	Theoretical Reserve Percent	Theoretical Reserve	Depreciated Original Cost	OC Weighted Age	OC Weighted Normal Remaining Life	OC Weighted Total Life Expectancy		
384.7	Laboratory Equipment	2000	1,516.42	R3.0	20	11.50	58	R3.0058	0.47316	9.48	20.88	0.54886	833.10	885.32	17.46	83	14,364.25	31,824.08	
384.7	Laboratory Equipment	2006	4,151.93	R3.0	20	11.50	58	R3.0058	0.47316	9.48	20.88	0.54886	1,721.88	1,418.27	36.08	20	29,884.82	85,771.01	
384.7	Laboratory Equipment	2008	1,607.74	R3.0	20	11.50	58	R3.0058	0.47316	9.46	20.88	0.54866	882.10	725.84	18.48	01	15,209.22	33,694.23	
384.7	Laboratory Equipment	2008	3,751.38	R3.0	20	11.50	58	R3.0058	0.47316	9.46	20.88	0.54866	2,058.23	1,693.15	43.14	87	35,488.05	78,628.02	
384.7	Laboratory Equipment	2007	3,408.39	R3.0	20	10.50	53	R3.0053	0.51325	10.27	20.77	0.50554	1,723.68	1,885.31	30	788	35,004.17	70,792.26	
384.7	Laboratory Equipment	2007	2,196.51	R3.0	20	10.50	53	R3.0053	0.51325	10.27	20.77	0.50554	1,110.42	1,086.99	25	063	22,556.16	45,821.51	
384.7	Laboratory Equipment	2007	1,345.42	R3.0	20	10.50	53	R3.0053	0.51325	10.27	20.77	0.50554	680.16	885.26	14	128	13,817.46	27,644.37	
384.7	Laboratory Equipment	2007	2,429.30	R3.0	20	10.50	53	R3.0053	0.51325	10.27	20.77	0.50554	1,228.13	1,201.21	25	508	24,949.32	56,457.39	
384.7	Laboratory Equipment	2008	8,800.00	R3.0	20	9.50	48	R3.0048	0.55461	11.09	20.56	0.46139	4,060.23	4,739.77	83	600	97,392.00	181,182.00	
384.7	Laboratory Equipment	2008	2,478.00	R3.0	20	9.50	48	R3.0048	0.55461	11.09	20.56	0.46139	1,143.32	1,334.88	23	541	51,022.02	51,022.02	
384.7	Laboratory Equipment	2008	7,565.60	R3.0	20	9.50	48	R3.0048	0.55461	11.09	20.56	0.46139	3,490.71	4,014.93	71	873	83,902.95	155,776.53	
384.7	Laboratory Equipment	2011	5,175.00	R3.0	20	8.50	43	R3.0043	0.68583	13.71	20.21	0.32182	1,663.74	3,509.28	33	624	70,821.83	104,548.33	
384.7	Laboratory Equipment	2014	2,367.00	R3.0	20	3.50	18	R3.0018	0.82519	16.5	20	0.175	44.23	1,952.77	8	284	39,055.50	47,340.00	
384.7	Laboratory Equipment	2014	3,574.00	R3.0	20	3.50	18	R3.0018	0.82519	16.5	20	0.175	825.45	2,948.55	12	509	58,971.00	77,480.00	
384.7	Laboratory Equipment	2014	9,570.00	R3.0	20	3.50	18	R3.0018	0.82519	16.5	20	0.175	1,674.75	7,895.25	33	495	157,905.00	191,460.00	
384.7	Laboratory Equipment	2015	2,281.00	R3.0	20	2.50	13	R3.0013	0.97314	17.48	19.96	0.12529	285.70	1,995.30	5	702	36,829.26	45,528.76	
384.70 Total	Laboratory Equipment		80,810.58			9.39				11.35	20.74		36,212.04	44,596.55	758	660	53	157,287.56	1,875,823.03
385.7	Power Operated Equipment	2015	-	R3.0	15	2.50	17	R3.0017	0.83474	12.52	15.02	0.18644	-	-	-	-	-	-	
385.70 Total	Power Operated Equipment		-			0.00				0.00	0.00		-	-	-	-	-	-	
386.7	COMMUNICATION EQUIPMENT	2011	3,996.00	R3.0	12	6.50	54	R3.0054	0.50513	8.66	12.56	0.51752	2,038.01	1,927.89	25	974	00	24,215.76	50,188.76
386.70 Total	COMMUNICATION EQUIPMENT		3,996.00			6.50				8.66	12.56		2,038.01	1,927.89	25	974	00	24,215.76	50,188.76
387.7	MISCELLANEOUS EQUIPMENT	2002	511.76	R3.0	20	15.50	78	R3.0078	0.32728	8.55	22.05	0.70295	640.92	270.84	4	132	28	5,972.03	20,104.31
387.7	MISCELLANEOUS EQUIPMENT	2008	663.00	R3.0	20	9.50	48	R3.0048	0.55461	11.09	20.56	0.46139	458.16	534.84	9	433	50	11,012.37	20,445.87
387.7	MISCELLANEOUS EQUIPMENT	2014	2,268.00	R3.0	20	3.50	18	R3.0018	0.82519	16.5	20	0.175	388.55	1,896.45	7	931	00	37,389.00	45,320.00
387.70 Total	MISCELLANEOUS EQUIPMENT		4,442.76			7.55				13.04	20.59		1,495.83	2,875.13	31	496	78	54,373.40	85,870.18
Grand Total			88,404,345.14			26.38				36.44	62.37		28,346,711.22	40,057,833.92	1,804,696,383.05	2,492,647,826.86	4,266,277,508.78		



Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Cost Approach
Cost Indices

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Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Cost Approach
Handy Whitman Index of Public Utility Construction Costs
Water Industry - Northeastern United States

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Bulletin No. 186

1912 to July 1, 2017

**The
Handy-Whitman Index®
of
Public Utility
Construction Costs™**

←—————→

Trends of Construction Costs

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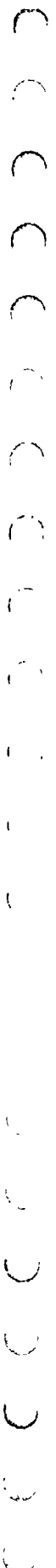


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TRENDS OF PUBLIC UTILITY CONSTRUCTION COSTS

GEOGRAPHIC REGIONS





FOREWORD

Tradition of Quality

The Handy-Whitman Index of Public Utility Construction Costs has been published continuously since 1924. Formerly the Handy Index, Bulletin Nos. 1 through 15 were developed by William W. Handy of Baltimore who had wide valuation experience in public utilities. *He believed that valuation studies should not be confined to rate cases but should be kept alive to the benefit of the utility industry.* He began publishing index numbers for electric and gas construction cost trends. Carrying on with the *tradition of quality*, after Mr. Handy's death, we continued publication for his estate beginning with Bulletin 16. Then, January 1, 1950, Whitman, Requardt and Associates, LLP purchased rights to the publication and have since been the sole publishers.

The name Handy-Whitman Index was adopted for Bulletin No. 53 and succeeding issues to combine the names of Mr. Handy and Ezra B. Whitman, a well-known valuation engineer. In 1957 an index of water utility construction costs was added. Mr. Whitman was a consultant on the publication of the Index until his death in 1963.

Whitman, Requardt and Associates, LLP

Ezra B. Whitman, a well-known valuation engineer was one of the founders of our firm. Major Whitman, as he was known from his World War I service, had already made a name for himself. Prior to the founding of the firm in 1915, Major Whitman had been President and Chief Engineer of the Water Board of the City of Baltimore. He designed the first rapid sand filtration plant serving a major city while he was the Baltimore Water Engineer. He was also president of the American Society of Civil Engineers and of the American Institute of Consulting Engineers and a chairman of the Public Service Commission of Maryland.

The Handy-Whitman Index is prepared especially for electric, gas and water utilities and is the only known publication of its kind available to the public. The list of subscribers is international and includes operating utilities, regulatory bodies, valuation engineers, equipment industries, insurance companies and reference libraries.

Tradition of Quality Continued

Since 1915, Whitman, Requardt and Associates, LLP, has been an independent consulting engineering firm organized to serve government, industry and private enterprise.

The firm has steadily expanded its engineering capabilities, providing complete services for civil, sanitary, structural, mechanical and electrical engineering and architectural projects from job

inception through construction management. Construction cost data from utility projects of all types are available from design and valuation assignments. The staff is composed of specialists in these and related disciplines who bring a diverse professional and academic expertise to each assignment. A full-time staff is maintained specifically for preparing the Handy-Whitman Index.

Methods of Preparation of Indexes

An index number is a percentage ratio between the cost of an item at any stated time and its cost at a base period, or:

$$\text{Index Number} = \frac{\text{cost at stated time}}{\text{cost at base period}} \times 100$$

Index numbers have been prepared for many items, including wage rates, cost-of-living, material and equipment costs, and financial transactions. In the Handy-Whitman Index, index numbers have been developed for Building Construction, Electric Utility Construction, Gas Utility Construction and Water Utility Construction. Prices of basic materials such as cement, sand, gravel, cast iron pipe, wire, etc., are obtained from publications such as Engineering News-Record and checked against prices actually being paid for such materials. Labor cost trends are computed from labor rates obtained from sources such as the Construction Labor Research Council. Prices and cost trends of equipment are obtained from nationally recognized manufacturers, and operating utilities.

Handy-Whitman Index numbers are developed from wage rates and prices prevailing on January 1 and July 1 each year. The index numbers are generally based on 1973 = 100, although those items of recent origin are based on a later year.

The proportions of basic materials, labor, equipment and other cost components used in the Handy-Whitman Index are based on analyses developed during valuation and design assignments and on data furnished by utilities and industrial sources willing to assist with the Index. These data are reviewed continuously, and weightings and components are revised as required. This review assures that the indexes published reflect current construction practice.

FOREWORD

Geographic Regions

To reflect differing cost trends throughout the 48 contiguous states, the index has been divided into six geographical regions of similar characteristics. They are shown on the accompanying map.

Use of Index Numbers

Handy-Whitman Index numbers have been widely used to trend earlier valuations and original cost records to estimate reproduction cost at prices prevailing at a certain date. The use of indexes for an appropriate property item or group will provide a reliable guide to changes in cost. Cost trends are given for all the important items of property. The electric and gas groups are arranged by the Federal Energy Regulatory Commission Uniform System of Accounts. The water property accounts are arranged to follow the classification of the National Association of Regulatory Utility Commissioners and the American Water Works Association.

The Handy-Whitman Index will furnish a yardstick for the fluctuations in value of property which will be satisfactory for many purposes. In rare cases, when a more exact determination of value is desired, however, the Index must be used carefully. Average prices and cost trends are used to develop the Index, and any direct application of cost trends without checking with actual local experience may not be accepted without controversy. When local experience is compared with the index and the correlation between the two trends is determined, the result is satisfactory. Costs trended by such a method are used to assist in establishing a rate base.

Indexes in these bulletins are used to trend earlier valuations or original cost records for insurance purposes.

The Handy-Whitman Index has a general application in valuations of all types of property. The building construction cost trends may be used wherever similar items of property are to be compared. Many of the other trends may be used for related items in other industries because of their similarity.

State-of-the-art changes often affect costs independently of inflation. New regulatory and environmental requirements, changes in work rules and improved design standards, for instance, increase construction costs even though the price of wages, materials and equipment may be static. Trended construction costs will not reflect such changes. However, trended costs are a reasonably accurate measure of the cost of reproducing actual plant.

Although every effort is made to maintain accuracy, Whitman, Requardt and Associates, LLP disclaim any responsibility for the use of these indexes, because local conditions may vary.

No guarantee or warranty of any kind is made in the sale of the Handy-Whitman Index. Published numbers are occasionally subject to change based upon receipt of new or different information. These numbers will be bolded.

Further inquiries on electric, gas and water indexes should be addressed to Whitman, Requardt and Associates, LLP.

Total Electric Plant and Function

Three indexes are provided for total plant. The first is for all steam generation and the other two for weighted combinations of steam and nuclear, and steam and hydro generation. Indexes are also provided for each function.

Indexes are not maintained for plant accounts 323,324,325,341,345 and 346. We believe that indexes for comparable accounts in other functions are sufficiently accurate for these accounts.

The indexes for total nuclear production and total other production incorporate comparable indexes from the steam production function for the accounts not listed.

Value of Index Numbers

We believe that present-day reproduction cost of any property can be calculated more accurately using index numbers than by repricing a complete inventory.

Trending the controlling items of property in any utility by the index method saves time and effort in arriving at a valuation. Analyzing and determining cost trends for all of the great numbers of articles of plant that represent only a very small proportion of the value of the utility is not necessary. They may be assumed to follow in general the trend of the controlling items, and the fluctuations in value above or below the trends of the controlling items will tend to offset each other and have a very slight effect on the total value.

Comments on Bulletin No. 186

During the twelve month period ending July 1, 2017, the average index of all geographical regions for Total Gas Plant increased 7%, and the comparable index for Electric Plant-All Steam Generation increased 1.2%.

November 2017
Whitman, Requardt and Associates, LLP

Cost Trends Of

Water Utility Construction

**COST TREND TABLES
1912 to July 1, 2017**

W-1

COST TRENDS OF WATER UTILITY CONSTRUCTION NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS															
		N A R U C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
1	Source of Supply Plant																
2	Collecting & Impounding Res.	305	7	7	7	7	9	13	15	15	17	16	16	16	16	16	16
3																	
4																	
5																	
6																	
7	Pumping Plant																
8	Structures & Improvements	304	8	8	8	9	11	16	17	18	20	18	18	18	19	18	18
9	Electric Pumping Equipment	311	-	-	15	15	17	20	22	24	24	23	21	22	23	23	23
10																	
11																	
12																	
13																	
14	Water Treatment Plant																
15	Structures & Improvements	304	8	8	8	9	11	16	17	18	20	18	18	18	19	18	18
16	Large Treatment Plant Equip.	320	9	9	9	9	11	14	16	17	20	19	18	18	20	20	20
17	Small Treatment Plant Equip.	320	10	10	10	10	13	17	19	19	22	20	20	20	21	20	20
18																	
19																	
20																	
21																	
22	Transmission Plant																
23	Steel Reservoirs	330	4	4	4	12	15	17	19	20	15	13	12	13	13	13	13
24	Elevated Steel Tanks	330	4	4	4	11	14	16	18	19	16	13	11	12	11	10	10
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																	
27	Cast Iron Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Steel Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Concrete Cylinder Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30																	
31																	
32																	
33	Distribution Plant																
34	Mains-Average All Types	331	9	10	8	9	11	16	19	20	22	22	20	21	22	21	21
35	Cast Iron Mains	331	9	10	9	9	12	18	20	22	25	24	22	23	24	23	23
36	Cement-Asbestos Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	Steel Mains	331	6	7	6	7	8	11	13	13	14	15	14	14	14	14	15
38	PVC Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Services Installed	333	6	6	5	6	6	9	10	11	12	13	12	12	13	13	13
40	Meters	334	23	23	23	23	26	29	35	37	37	37	37	37	37	37	37
41	Meter Installations	334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	Hydrants Installed	335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43																	
44																	
45	Miscellaneous Items																
46	Flocculating Equipment-Installed		14	16	13	14	26	38	31	29	29	24	25	26	24	23	23
47	Clarifier Equipment-Installed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	Filter Gallery Piping-Installed		8	8	8	8	10	14	16	18	20	18	17	18	19	19	19
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	N A R U C	COST INDEX NUMBERS													
			1	1	1	1	1	1	1	1	1	1	1	1	1	
			9	9	9	9	9	9	9	9	9	9	9	9	9	9
1	Source of Supply Plant															
2	Collecting & Impounding Res.	305	17	17	17	17	17	16	14	14	15	15	15	17	17	17
3																
4																
5																
6																
7	Pumping Plant															
8	Structures & Improvements	304	19	18	18	18	17	16	15	15	16	16	16	18	18	18
9	Electric Pumping Equipment	311	23	23	23	22	22	22	22	23	24	24	25	26	26	26
10																
11																
12																
13																
14	Water Treatment Plant															
15	Structures & Improvements	304	19	18	18	18	17	16	15	15	16	16	16	18	18	18
16	Large Treatment Plant Equip.	320	20	20	20	20	20	19	17	17	18	18	18	20	20	20
17	Small Treatment Plant Equip.	320	20	20	20	20	20	19	17	17	19	19	19	21	21	21
18																
19																
20																
21																
22	Transmission Plant															
23	Steel Reservoirs	330	12	12	12	12	11	10	9	9	12	11	12	14	14	14
24	Elevated Steel Tanks	330	11	10	10	10	10	9	8	8	10	10	11	12	13	13
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Steel Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Concrete Cylinder Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30																
31																
32																
33	Distribution Plant															
34	Mains-Average All Types	331	21	21	20	20	20	20	18	18	19	19	20	21	22	22
35	Cast Iron Mains	331	23	21	20	21	21	20	18	18	20	20	21	23	24	24
36	Cement-Asbestos Mains	331	-	-	-	-	-	-	-	-	-	-	31	32	32	33
37	Steel Mains	331	15	15	15	16	16	16	14	13	14	14	14	16	16	16
38	PVC Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Services Installed	333	13	13	13	14	14	14	13	11	12	13	13	14	14	14
40	Meters	334	37	37	37	37	37	37	37	35	26	26	26	31	32	32
41	Meter Installations	334	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	Hydrants Installed	335	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43																
44																
45	Miscellaneous Items															
46	Flocculating Equipment-Installed		23	22	22	22	21	20	20	20	21	21	23	26	25	25
47	Clarifier Equipment-Installed		-	-	-	-	-	-	-	-	-	-	-	17	23	24
48	Filter Gallery Piping-Installed		19	18	18	18	18	18	15	16	18	18	18	19	20	20
49																
50																
51																
52																
53																
54																
55																
56																

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COST TRENDS OF WATER UTILITY CONSTRUCTION NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS															
		N A R U C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
			9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5
		0	1	2	3	4	5	6	7	8	9	0	1	2	3		
1	Source of Supply Plant																
2	Collecting & Impounding Res.	305	17	18	20	20	20	21	23	27	31	32	33	35	36	38	
3																	
4																	
5																	
6																	
7	Pumping Plant																
8	Structures & Improvements	304	18	19	20	21	21	22	24	28	32	35	36	38	38	39	
9	Electric Pumping Equipment	311	26	27	27	27	27	27	31	39	43	45	49	55	55	55	
10																	
11																	
12																	
13																	
14	Water Treatment Plant																
15	Structures & Improvements	304	18	19	20	21	21	22	24	28	32	35	36	38	38	39	
16	Large Treatment Plant Equip.	320	21	22	23	24	24	25	28	32	35	36	38	40	41	42	
17	Small Treatment Plant Equip.	320	21	22	24	24	24	25	28	33	37	39	41	43	43	44	
18																	
19																	
20																	
21																	
22	Transmission Plant																
23	Steel Reservoirs	330	14	16	16	13	14	16	20	26	29	27	28	30	31	32	
24	Elevated Steel Tanks	330	12	15	15	14	15	14	17	23	26	25	26	28	29	31	
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26																	
27	Cast Iron Mains	331	-	-	-	-	-	-	-	-	-	-	-	42	43	45	
28	Steel Mains	331	-	-	-	-	-	-	-	-	-	-	-	40	40	43	
29	Concrete Cylinder Mains	331	-	-	-	-	-	-	-	-	-	-	-	44	45	47	
30																	
31																	
32																	
33	Distribution Plant																
34	Mains-Average All Types	331	23	23	24	25	25	26	29	35	41	42	43	45	47	48	
35	Cast Iron Mains	331	24	25	27	27	28	28	32	39	46	46	48	50	51	53	
36	Cement-Asbestos Mains	331	33	34	36	36	37	37	44	49	59	61	62	64	65	67	
37	Steel Mains	331	16	17	18	18	18	19	21	24	28	29	31	32	34	36	
38	PVC Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	Services Installed	333	14	15	16	16	17	17	19	22	25	27	28	29	31	33	
40	Meters	334	33	35	37	37	37	37	40	42	48	52	59	61	61	65	
41	Meter Installations	334	-	-	-	-	-	-	-	-	-	29	31	34	35	36	
42	Hydrants Installed	335	-	-	-	-	-	-	-	-	-	35	37	41	41	43	
43																	
44																	
45	Miscellaneous Items																
46	Flocculating Equipment-Installed	25	27	28	28	28	30	33	38	44	45	45	49	49	50		
47	Clarifier Equipment-Installed	25	26	27	27	27	29	32	37	43	43	44	46	46	49		
48	Filter Gallery Piping-Installed	21	21	22	22	22	23	25	30	35	37	37	39	40	41		
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	

COST TRENDS OF WATER UTILITY CONSTRUCTION
NORTH ATLANTIC REGION (1973=100)

L i n e	CONSTRUCTION AND EQUIPMENT	N A R U C	COST INDEX NUMBERS														
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	
			9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
1	Source of Supply Plant																
2	Collecting & Impounding Res.	305	39	41	44	47	49	51	52	53	55	56	57	59	61	64	
3																	
4																	
5																	
6																	
7	Pumping Plant																
8	Structures & Improvements	304	41	43	46	49	50	52	53	53	54	55	56	57	59	61	
9	Electric Pumping Equipment	311	55	56	63	69	73	74	74	71	71	71	73	74	78	81	
10																	
11																	
12																	
13																	
14	Water Treatment Plant																
15	Structures & Improvements	304	41	43	46	49	50	52	53	53	54	55	56	57	59	61	
16	Large Treatment Plant Equip.	320	44	45	48	50	52	54	55	56	58	59	60	62	64	67	
17	Small Treatment Plant Equip.	320	46	47	50	53	54	56	58	58	60	60	62	63	66	68	
18																	
19																	
20																	
21																	
22	Transmission Plant																
23	Steel Reservoirs	330	32	33	38	42	37	36	35	35	35	41	44	45	46	47	
24	Elevated Steel Tanks	330	31	33	35	38	38	38	38	37	36	37	38	38	41	44	
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26																	
27	Cast Iron Mains	331	47	50	52	56	57	61	62	63	64	65	66	67	69	71	
28	Steel Mains	331	44	46	49	52	55	57	57	58	59	60	61	63	65	67	
29	Concrete Cylinder Mains	331	48	50	52	54	56	59	60	60	61	62	62	64	66	70	
30																	
31																	
32																	
33	Distribution Plant																
34	Mains-Average All Types	331	51	53	57	60	63	65	68	69	71	72	73	74	75	76	
35	Cast Iron Mains	331	56	59	62	66	68	72	73	75	77	79	79	80	80	81	
36	Cement-Asbestos Mains	331	68	70	75	78	81	84	86	86	87	89	88	81	82	82	
37	Steel Mains	331	38	40	43	46	48	51	53	55	56	58	60	63	65	66	
38	PVC Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	Services Installed	333	35	36	39	41	44	46	48	50	51	53	55	58	60	63	
40	Meters	334	67	70	77	78	78	78	78	84	87	87	93	101	101		
41	Meter Installations	334	38	40	44	45	46	48	51	52	54	55	57	59	62	65	
42	Hydrants Installed	335	44	44	48	50	51	53	54	55	56	57	58	58	61	64	
43																	
44																	
45	Miscellaneous Items																
46	Flocculating Equipment-Installed		52	53	57	58	58	59	60	61	61	62	65	66	67	68	
47	Clarifier Equipment-Installed		50	49	53	55	57	58	58	59	60	60	63	65	66	67	
48	Filter Gallery Piping-Installed		44	46	48	50	53	54	56	57	58	59	60	61	63	65	
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	

**COST TRENDS OF WATER UTILITY CONSTRUCTION
NORTH ATLANTIC REGION (1973=100)**

Line	CONSTRUCTION AND EQUIPMENT	N A R U C	COST INDEX NUMBERS														
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			9	9	9	7	7	7	7	7	7	7	7	7	7	7	7
1	Source of Supply Plant																
2	Collecting & Impounding Res.	305	67	72	78	86	94	100	115	127	133	139	148	164	179	189	
3																	
4																	
5																	
6																	
7	Pumping Plant																
8	Structures & Improvements	309	64	69	75	84	92	100	117	127	130	137	148	163	181	191	
9	Electric Pumping Equipment	511	81	84	89	93	96	100	122	135	174	184	192	205	222	245	
10																	
11																	
12																	
13																	
14	Water Treatment Plant																
15	Structures & Improvements	304	64	69	75	84	92	100	117	127	130	137	148	163	181	191	
16	Large Treatment Plant Equip.	320	69	73	79	89	96	100	118	134	144	152	162	175	191	208	
17	Small Treatment Plant Equip.	320	78	74	80	90	96	100	120	139	150	160	172	186	204	223	
18																	
19																	
20																	
21																	
22	Transmission Plant																
23	Steel Reservoirs	330	49	53	75	82	85	100	140	159	171	172	179	178	191	208	
24	Elevated Steel Tanks	330	48	55	71	80	86	100	152	183	182	183	195	206	228	250	
25	Concrete Reservoirs	330															
26																	
27	Cast Iron Mains	331	74	78	84	91	98	100	129	137	142	150	158	166	180	196	
28	Steel Mains	331	69	74	80	88	96	100	113	125	133	141	152	166	180	199	
29	Concrete Cylinder Mains	331	72	78	80	88	95	100	113	134	138	140	148	162	176	189	
30																	
31																	
32																	
33	Distribution Plant																
34	Mains-Average All Types	331	77	80	84	94	98	100	110	146	154	162	173	185	202	219	
35	Cast Iron Mains	331	82	83	88	97	99	100	143	158	163	167	178	185	202	218	
36	Cement-Asbestos Mains	331	82	85	88	97	98	100	127	148	159	167	176	202	212	234	
37	Steel Mains	331	68	72	78	88	97	100	115	128	139	151	164	179	197	212	
38	PVC Mains	331							25	100	104	108	113	122	132	138	
39	Services Installed	333	66	72	79	89	96	100	115	123	130	139	145	160	175	184	
40	Meters	334	101	106	108	108	106	100	93	93	98	101	105	108	122	127	
41	Meter Installations	334	68	73	79	89	97	100	113	120	131	147	152	162	177	189	
42	Hydrants Installed	335	68	72	80	90	96	100	123	143	157	167	182	194	207	222	
43																	
44																	
45	Miscellaneous Items																
46	Flocculating Equipment-Installed		69	74	82	93	98	100	139	174	195	218	246	290	350	406	
47	Clarifier Equipment-Installed		68	72	82	93	98	100	140	167	181	199	210	232	272	310	
48	Filter Gallery Piping-Installed		68	72	78	90	97	100	119	130	136	144	151	158	171	185	
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

L i n e	CONSTRUCTION AND EQUIPMENT	N A R U C	COST INDEX NUMBERS														
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
1	Sources of Supply Plant																
2	Collecting & Impounding Res.	305	197	206	217	227	234	238	248	255	258	262	270	282	295	302	
3																	
4																	
5																	
6																	
7	Pumping Plant																
8	Structures & Improvements	304	198	206	218	225	233	239	251	265	271	274	281	294	308	316	
9	Electric Pumping Equipment	311	260	271	277	282	284	299	311	330	349	355	368	386	428	442	
10																	
11																	
12																	
13																	
14	Water Treatment Plant																
15	Structures & Improvements	304	198	206	218	225	233	239	251	265	271	274	281	294	308	316	
16	Large Treatment Plant Equip.	320	227	242	251	262	269	276	286	301	313	322	332	342	348	357	
17	Small Treatment Plant Equip.	320	243	259	268	279	286	293	303	317	328	334	343	354	360	366	
18																	
19																	
20																	
21																	
22	Transmission Plant																
23	Steel Reservoirs	330	210	182	184	181	184	196	220	216	229	253	261	248	246	250	
24	Elevated Steel Tanks	330	244	197	200	198	207	219	260	268	278	285	277	249	242	252	
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26																	
27	Cast Iron Mains	331	208	222	225	236	235	242	253	266	273	279	284	295	305	305	
28	Steel Mains	331	215	223	230	234	232	241	255	272	279	287	293	302	316	324	
29	Concrete Cylinder Mains	331	203	213	218	232	239	243	258	269	277	288	295	303	311	317	
30																	
31																	
32																	
33	Distribution Plant																
34	Mains-Average All Types	331	231	239	244	254	255	263	280	295	301	307	311	321	327	332	
35	Cast Iron Mains	331	223	245	253	264	263	269	282	296	304	313	320	329	339	341	
36	Cement-Asbestos Mains	331	253	244	249	255	259	275	315	340	338	332	319	335	338	354	
37	Steel Mains	331	233	228	231	237	242	248	265	277	281	288	295	302	304	311	
38	PVC Mains	331	137	151	149	151	150	160	197	217	211	200	183	193	191	204	
39	Services Installed	333	198	207	215	221	226	230	245	258	262	272	283	292	300	307	
40	Meters	334	128	141	148	135	135	137	140	150	159	162	196	195	175	200	
41	Meter Installations	334	207	230	239	247	255	259	269	282	294	310	320	337	347	358	
42	Hydrants Installed	335	245	264	270	285	296	307	320	343	363	372	378	385	391	398	
43																	
44																	
45	Miscellaneous Items																
46	Flocculating Equipment-Installed		458	496	506	540	560	575	579	580	565	528	539	555	562	566	
47	Clarifier Equipment-Installed		356	389	398	431	442	446	451	455	442	416	435	458	492	514	
48	Filter Gallery Piping-Installed		201	217	223	234	237	243	251	266	279	289	297	309	319	321	
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	

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COST TRENDS OF WATER UTILITY CONSTRUCTION NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		N A R U C	1 9 9 6	1 9 9 7	1 9 9 8	1 9 9 9	2 0 0 0	2001		2002		2003		2004	
								Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Source of Supply Plant														
2	Collecting & Impounding Res.	305	309	317	318	318	326	328	338	338	346	344	345	364	370
3															
4															
5															
6															
7	Pumping Plant														
8	Structures & Improvements	304	321	331	337	343	362	370	380	382	390	393	388	405	418
9	Electric Pumping Equipment	311	450	473	489	505	530	531	531	516	533	534	546	547	569
10															
11															
12															
13															
14	Water Treatment Plant														
15	Structures & Improvements	304	321	331	337	343	362	370	380	382	390	393	388	405	418
16	Large Treatment Plant Equip.	320	367	380	391	401	413	419	429	435	445	448	449	461	462
17	Small Treatment Plant Equip.	320	375	389	401	410	424	431	440	444	454	456	457	470	476
18															
19															
20															
21															
22	Transmission Plant														
23	Steel Reservoirs	330	251	255	268	268	270	270	275	275	275	275	275	278	313
24	Elevated Steel Tanks	330	268	273	283	288	299	305	314	429	429	429	429	438	481
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-
26															
27	Cast Iron Mains	331	311	320	323	328	348	355	365	368	387	390	381	387	386
28	Steel Mains	331	329	337	342	351	377	384	392	394	400	404	395	421	437
29	Concrete Cylinder Mains	331	324	331	338	345	372	395	405	409	416	420	411	417	423
30															
31															
32															
33	Distribution Plant														
34	Mains-Average All Types	331	339	347	355	361	377	383	392	395	406	407	403	415	426
35	Cast Iron Mains	331	348	358	364	370	390	396	406	409	424	426	422	430	428
36	Cement-Asbestos Mains	331	364	372	375	382	405	418	423	429	448	450	441	450	454
37	Steel Mains	331	316	322	334	339	346	352	359	361	363	364	363	378	413
38	PVC Mains	331	211	216	216	219	231	241	241	246	254	256	250	258	259
39	Services Installed	333	321	323	330	334	348	352	355	354	361	363	365	377	386
40	Meters	334	207	197	197	198	205	206	206	207	207	207	207	207	207
41	Meter Installations	334	375	381	387	392	406	412	418	421	428	436	437	449	455
42	Hydrants Installed	335	418	475	493	508	526	538	554	557	566	569	568	576	583
43															
44															
45	Miscellaneous Items														
46	Flocculating Equipment-Installed		579	603	622	642	652	667	670	676	685	687	688	724	754
47	Clarifier Equipment-Installed		540	562	572	579	593	599	602	609	617	623	625	646	649
48	Filter Gallery Piping-Installed		328	337	344	349	363	369	379	384	400	406	404	417	415
49															
50															
51															
52															
53															
54															
55															
56															

COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	N A R R U C	COST INDEX NUMBERS											
			2005		2006		2007		2008		2009		2010	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Source of Supply Plant													
2	Collecting & Impounding Res.	305	388	394	400	405	413	439	457	466	470	465	475	478
3														
4														
5														
6														
7	Pumping Plant													
8	Structures & Improvements	304	442	447	456	464	481	494	516	543	551	536	552	558
9	Electric Pumping Equipment	311	604	611	620	619	639	628	640	666	679	688	707	701
10														
11														
12														
13														
14	Water Treatment Plant													
15	Structures & Improvements	304	442	447	456	464	481	494	516	543	551	536	552	558
16	Large Treatment Plant Equip.	320	480	482	499	500	516	533	566	582	614	616	631	638
17	Small Treatment Plant Equip.	320	498	502	520	518	539	559	602	624	666	669	686	693
18														
19														
20														
21														
22	Transmission Plant													
23	Steel Reservoirs	330	329	338	348	375	494	537	537	722	722	722	722	722
24	Elevated Steel Tanks	330	524	524	524	596	657	657	680	866	866	866	866	867
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-
26														
27	Cast Iron Mains	331	411	415	442	451	480	484	510	534	578	576	601	601
28	Steel Mains	331	509	508	530	539	528	527	543	606	605	585	593	609
29	Concrete Cylinder Mains	331	436	440	454	459	460	462	468	475	502	502	494	495
30														
31														
32														
33	Distribution Plant													
34	Mains-Average All Types	331	462	464	485	494	524	523	550	588	624	608	617	623
35	Cast Iron Mains	331	457	460	483	492	525	528	556	579	625	624	647	648
36	Cement-Asbestos Mains	331	480	483	538	546	599	597	621	632	691	678	638	649
37	Steel Mains	331	459	460	467	477	494	487	514	582	595	559	565	575
38	PVC Mains	331	277	278	321	321	365	361	372	374	419	408	353	363
39	Services Installed	333	404	407	421	459	478	481	501	511	534	534	545	554
40	Meters	334	207	207	235	248	260	262	373	373	373	373	374	376
41	Meter Installations	334	466	467	482	530	549	552	572	573	597	598	612	623
42	Hydrants Installed	335	597	597	613	647	663	669	693	699	732	731	740	721
43														
44														
45	Miscellaneous Items													
46	Flocculating Equipment-Installed		801	801	852	852	869	983	1187	1373	1645	1645	1699	1744
47	Clarifier Equipment-Installed		709	709	729	729	760	892	920	944	997	997	991	1001
48	Filter Gallery Piping-Installed		438	438	468	470	500	501	530	543	589	590	613	614
49														
50														
51														
52														
53														
54														
55														
56														

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	N A R U C	COST INDEX NUMBERS													
			2011		2012		2013		2014		2015		2016		2017	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Source of Supply Plant															
2	Collecting & Impounding Res.	305	492	495	501	502	507	505	515	517	526	521	526	532	543	549
3																
4																
5																
6																
7	Pumping Plant															
8	Structures & Improvements	304	571	583	597	600	618	608	621	630	642	646	655	659	672	671
9	Electric Pumping Equipment	311	708	760	780	785	800	844	856	900	928	931	990	1013	1052	1135
10																
11																
12																
13																
14	Water Treatment Plant															
15	Structures & Improvements	304	571	583	597	600	618	608	621	630	642	646	655	659	672	671
16	Large Treatment Plant Equip.	320	642	653	669	680	689	697	713	725	736	737	755	758	774	785
17	Small Treatment Plant Equip.	320	706	712	740	754	764	779	800	813	832	840	861	864	881	897
18																
19																
20																
21																
22	Transmission Plant															
23	Steel Reservoirs	330	771	791	795	810	778	780	715	742	742	742	742	774	784	784
24	Elevated Steel Tanks	330	1079	1079	1059	1082	1089	1099	1131	1131	1131	1131	1131	1143	1161	1161
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	602	610	634	669	691	684	712	743	733	744	754	759	793	785
28	Steel Mains	331	644	659	711	708	724	704	694	708	712	713	697	705	723	726
29	Concrete Cylinder Mains	331	510	517	523	526	547	534	535	547	562	575	591	592	601	592
30																
31																
32																
33	Distribution Plant															
34	Mains-Average All Types	331	633	644	669	690	698	693	720	733	736	738	747	750	774	772
35	Cast Iron Mains	331	654	660	681	716	733	730	759	781	780	785	795	797	832	826
36	Cement-Asbestos Mains	331	658	683	716	721	712	787	704	721	724	731	741	743	751	746
37	Steel Mains	331	593	606	633	637	638	631	665	665	673	670	678	681	697	701
38	PVC Mains	331	369	389	412	412	391	392	383	383	387	387	388	388	387	387
39	Services Installed	333	568	574	589	600	602	602	603	605	617	616	622	617	638	651
40	Meters	334	379	379	379	379	380	381	381	381	400	400	403	403	404	418
41	Meter Installations	334	635	635	646	673	677	677	688	688	702	702	709	709	722	733
42	Hydrants Installed	335	730	731	730	758	774	784	807	849	877	930	971	972	980	981
43																
44																
45	Miscellaneous Items															
46	Flocculating Equipment-Installed		1823	1848	1904	1973	1978	2015	2041	2078	2167	2177	2192	2192	2198	2213
47	Clarifier Equipment-Installed		1056	1060	1077	1102	1105	1136	1154	1162	1184	1188	1229	1272	1311	1315
48	Filter Gallery Piping-Installed		620	620	641	666	677	680	713	728	727	728	735	738	772	772
49																
50																
51																
52																
53																
54																
55																
56																

W-1

COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

L i n e	CONSTRUCTION AND EQUIPMENT	N A R T I C L E	COST INDEX NUMBERS													
			2018		2019		2020		2021		2022		2023		2024	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Source of Supply Plant															
2	Collecting & Impounding Res.	305														
3																
4																
5																
6																
7	Pumping Plant															
8	Structures & Improvements	304														
9	Electric Pumping Equipment	311														
10																
11																
12																
13																
14	Water Treatment Plant															
15	Structures & Improvements	304														
16	Large Treatment Plant Equip.	320														
17	Small Treatment Plant Equip.	320														
18																
19																
20																
21																
22	Transmission Plant															
23	Steel Reservoirs	330														
24	Elevated Steel Tanks	330														
25	Concrete Reservoirs	330														
26																
27	Cast Iron Mains	331														
28	Steel Mains	331														
29	Concrete Cylinder Mains	331														
30																
31																
32																
33	Distribution Plant															
34	Mains-Average All Types	331														
35	Cast Iron Mains	331														
36	Cement-Asbestos Mains	331														
37	Steel Mains	331														
38	PVC Mains	331														
39	Services Installed	333														
40	Meters	334														
41	Meter Installations	334														
42	Hydrants Installed	335														
43																
44																
45	Miscellaneous Items															
46	Flocculating Equipment-Installed															
47	Clarifier Equipment-Installed															
48	Filter Gallery Piping-Installed															
49																
50																
51																
52																
53																
54																
55																
56																

BULLETIN No. 187

1912 to January 1, 2018

THE
HANDY-WHITMAN INDEX
Of
Public Utility
Construction Costs®

TRENDS OF
CONSTRUCTION COSTS

Preliminaries

Compiled and Published by

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Baltimore, Maryland 21231
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HANDY-WHITMAN INDEX OF PUBLIC UTILITY CONSTRUCTION COSTS

PRELIMINARY NUMBERS BULLETIN 187

WATER INDEXES 1/1/18

LINE	REGION 1	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6
2	559	467	537	456	495	534
8	687	570	655	558	634	684
9	1146	1146	1146	1146	1146	1146
15	687	570	655	558	634	684
16	797	701	759	705	717	810
17	911	832	882	841	851	930
23	801	801	801	801	801	801
24	1181	1181	1181	1181	1181	1181
27	810	763	789	773	783	827
28	733	658	699	681	673	732
29	620	554	594	557	567	621
34	790	719	752	696	714	777
35	855	821	846	798	814	854
36	763	612	668	590	621	649
37	704	597	653	590	605	701
38	397	343	376	342	348	384
39	661	504	596	513	519	636
40	434	434	434	434	434	434
41	750	603	690	616	628	732
42	1012	943	968	952	953	1028
46	2223	2193	2213	2233	2215	2278
47	1325	1218	1305	1235	1275	1340
48	801	645	748	683	726	836

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Cost Approach
AUS Consultants Index of General Plant Costs
Northeastern United States

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AUS Telephone Plant Index



AUS Telephone Plant Index

Cost Trend Tables from 1946 to January 1, 2018

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To January 1, 2018

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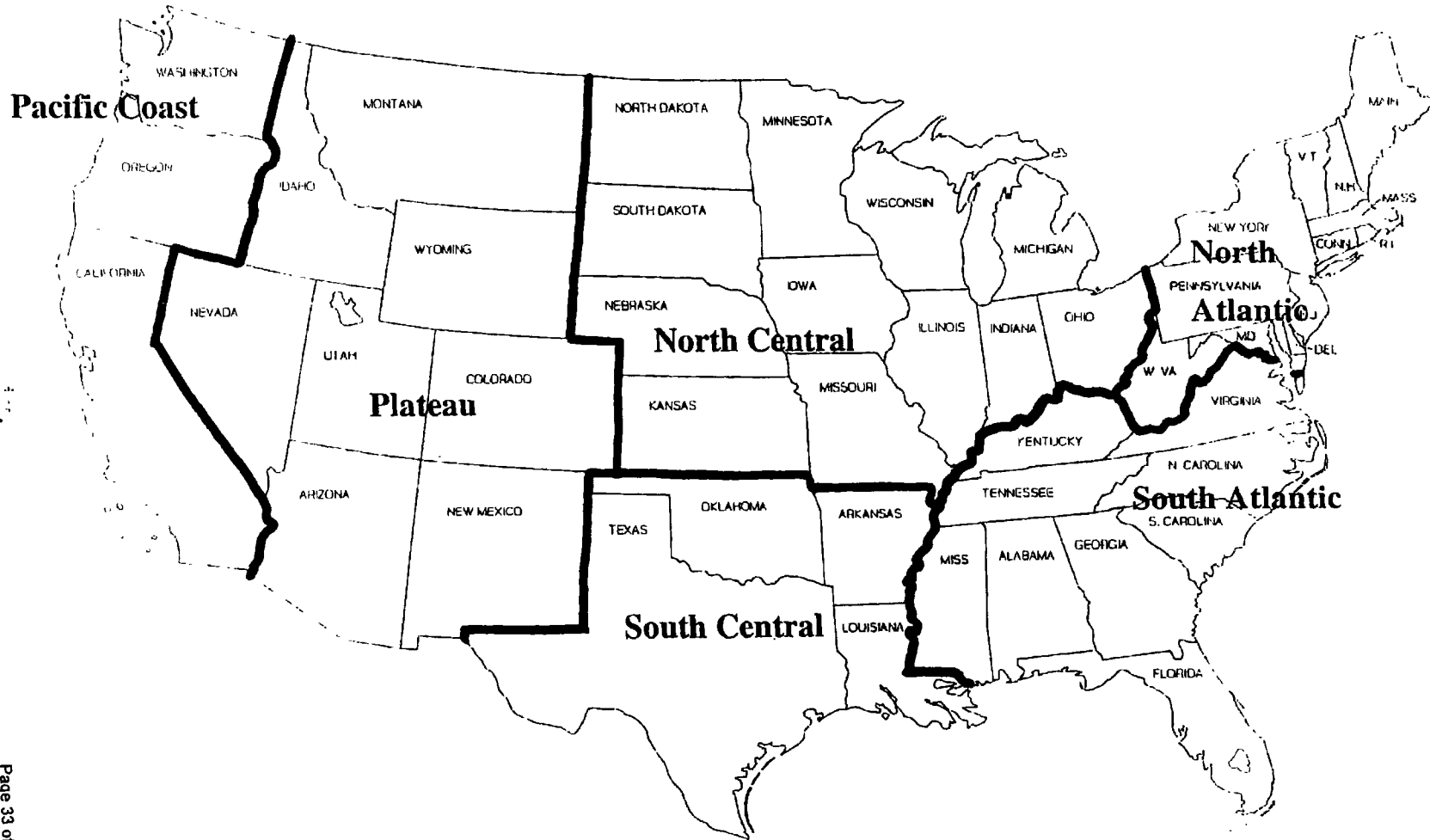
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FOREWORD

The AUS Telephone Plant Index, which follows this foreword was first introduced in 1977 by Associated Utility Services, Inc., and published as part of the Handy-Whitman Index of Public Utility Construction Costs through 1989. In 1990 AUS Consultants, the successor company to Associated Utility Services, Inc., decided to publish the Telephone Plant Index under the name C.A. Turner Utility Reports publication division. In 2005 the index changed its name from C.A. Turner Telephone Plant Index to AUS Telephone Plant Index.

The 1990 AUS Telephone Plant Index (TPI) was the first nationally available TPI based on the Federal Communication Commission (FCC) Uniform System of Accounts (USOA) Part 32. The prior published TPI, also prepared by AUS staff, was based on the earlier USOA Part 31 Standards.

Telephone Plant Index Description

The TPI consists of a separate cost index series for each of six geographic regions shown on the map at page iv. These regions are designated: North Atlantic, South Atlantic, North Central, South Central, Plateau, and Pacific Coast. The regional designation are the same as those used in the prior issues of the cost index and are based on similarity of characteristics among the contiguous 48 states.

Each cost index series within a region consists of one index labeled "Total Plant Account" and up to 31 individual cost index series for the individual plant account identified in the left hand columns.

The Base Year for each cost index is 1973=100. Some plant accounts will not show an index number of 100 at year 1973 due to a subsequent adjustment for FCC Part 31 to Part 32, changes explained later in this foreword. In a few accounts the item described in the account was not included in the index series until after 1973 and the base year is considered the first year of entry.

The index for most plant accounts begins with a single entry in year 1946 and continues with a single number for each year through 1973. Beginning in 1974 there are two index numbers for each year; one for January 1 and one for July 1. These numbers represent the prevailing wages and material prices and weightings at that point in time.

Index History

An index is a tool for identifying the relative price change of an item, or group of items over an identified period of time. Price indexes have been in use for many years for a variety of reasons. One example is an index developed in the eighteenth century by an Italian named Carli to determine the effect of the discovery of America upon the level of prices in Italy of three commodities between the years 1500 and 1750. In the current century, numerous organizations, including the United States Bureau of Statistic, have developed a variety of indexes ranging from the cost of basic commodities to manufactured goods and building construction cost.

Interest in telephone utility cost indexes has varied over time depending on the need to develop reproduction cost values for utility properties. Previous uses of cost indexes included such things as the determination trended original cost in fair value rate jurisdictions and current cost pricing for FASB-33 financial accounting disclosures. Due to changes in rate regulation proceedings and financial disclosure requirements, the need in these two specific areas has declined. Other areas in which reproduction cost indexes were utilized included insurance valuations, property tax valuations, retirement accounting and cost forecasting, etc.

Most recently, interest in cost indexes for the telecommunication industry has increased due to the possible implementation of price cap regulation. This form of regulation incorporates the use of changes in price levels by regulators to set rates. Under one proposal, customer tariff prices are adjusted to give consideration to productivity improvements, therefore, the development of the construction cost indexes will have an indirect bearing on the level of the company revenue requirements.

Index Design

The telephone plant index was designed as a product which could be utilized by any of the various telephone operating companies to develop the reproduction cost of the company's property at the selected test year date. Due to the variation of many design construction specifics from one company to another, it is impossible to produce an index which will exactly mirror the construction cost changes for each company. In circumstances where companies desire a more specific reproduction cost of their property, a custom index should be prepared or, alternately, the company's property should be inventoried and unit priced. Such unit cost work efforts, of course, will be significantly more expensive and time consuming to complete.

As indicated, the telephone plant index is a standard index which is published on a semi-annual basis. The yearly average index is calculated via a 1-2-1 weighting process which is the sum of 25% of the January index, 50 of the July index, and 25% of the succeeding year's January index.

In general terms, the telephone plant index was constructed around the FCC Part 32 system of accounts to aid companies in ease of application of the published index. Each embedded property account was reviewed to determine the components which comprise the large segment of the property investment in each account. In this manner, the resulting telephone plant index was a reasonable proxy for determining the reproduction cost of the embedded investment of the independent telephone industry.

With the exception of the General Support Asset Group, the FCC Part 32 based indexes were adjusted for all index years 1987 and prior to compensate for the change in overhead capitalization policies effective with the new regulations. That is, under FCC Part 31 regulation, a greater level of overheads were previously incorporated in the plant in service investments contained on the company's books and records. The adjusted indexes for the years 1946 through 1987, when applied to the company's original costs, will produce the applicable reproduction cost under FCC Part 32 accounting treatment. The index adjustment for Part 31 to Part 32 accounting results in the plant accounts not having an index number of 100 at the 1973 base year.

The AUS Telephone Plant Index was designed around thirty-six component indexes representing the basic components of material and labor which make up the construction of the various telephone plant accounts. The components include such items as Buildings, Switching Equipment, Circuit Equipment, Poles, Cable, Wire Vehicles, Tools, Furniture, Installer Labor and Lineman Labor, etc. The components were composited together into account level indexes based upon material and labor weights derived from a study of independent telephone construction cost experience.

Introduction of new technologies into a reproduction cost index required the review of composite weight included in development of the account level index to reflex the new mix of property.

The goal of the telephone plant index was to produce a product which when utilized together with each companies' books and records would produce a reproduction cost value.

The AUS Telephone Plant Index does not reflect replacement cost inasmuch as it was designed to produce the reproduction cost (the cost in today's dollars to reproduce the company's embedded plant in service).

Index Functions

The AUS Telephone Plant Index series was initially prepared to address a very specific function. That is, it was designed to enable companies to produce trended original cost values to the historical original cost of plant in service on the companies' books and records. This trended original cost is a general representation of the cost to reconstruct the property in question at the price level of the selected period. If a company desires a more specific estimate of reconstruction, the property specific indexes can be developed giving consideration to the actual history of the company's wages and material cost in comparison to the labor and material costs. For an even more specific cost estimated to rebuild the plant in serve, engineering estimated can be completed based upon the property inventory and the current unit costs for constructing the various plant categories.

In summary, the index was designed to be applied on a vintage and account level basis to determine the reproduction cost of local distribution companies' plant in service, as of the selected price level.

A tool can be utilized correctly only within the boundaries for which the product was originally designed. Uses above and beyond the scope of the original design may or may not produce reliable results. That is, the use of a generalized index to prepare a reproduction cost will provide general results within the range of reasonableness. If more specific or exact results are required, alternative methods or procedures (i.e., custom indexes or specific detail pricing) should be employed.

An effort has been made to carefully construct an index which produces a reasonable proxy of reproduction cost for the telephone plant or local distribution companies giving consideration to the fact that there are variances in material and labor costs, as well as, construction methods and practices from one company to another. Nevertheless, we believe that there is sufficient similarity in the cost trends to make the AUS Telephone Plant Index a useful tool when carefully applied to a company's historical cost base.

North Atlantic

SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	PLANT IN SERVICE DESCRIPTION	F c c A c c t	COST INDEX NUMBER																L I N E N O
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
			9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
1	Total Plant.....		85	89	91	91	92	95	96	96	94	94	97	97	96	96	97	96	1
2																			2
3																			3
4	Motor Vehicles.....	2112	57	57	63	67	67	70	74	74	74	77	81	84	87	89	88	87	4
5	Aircraft.....	2113	56	56	62	66	66	69	73	73	73	75	80	83	86	88	86	86	5
6	Special Purpose Vehicles.....	2114	30	34	38	41	42	46	47	48	49	51	56	60	62	65	66	67	6
7	Garage Work Equipment.....	2115	36	38	42	44	46	51	51	52	53	56	61	65	67	69	70	70	7
8	Other Work Equipment.....	2116	50	50	52	54	55	59	59	61	62	64	67	70	71	74	75	77	8
9																			9
10																			10
11	Buildings.....	2121	24	28	32	34	35	37	38	39	41	42	46	49	50	52	53	52	11
12	Furniture.....	2122	43	43	46	47	50	56	56	57	57	60	64	68	70	70	71	71	12
13	Office Equipment.....	2123	67	67	69	69	70	75	74	76	77	79	82	85	87	88	88	89	13
14	General Purpose Computer.....	2124	67	67	69	69	70	75	74	76	77	79	82	85	87	88	88	89	14
15																			15
16																			16
17	Analog Electronic Switching.....	2211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
18	Digital Electronic Switching.....	2212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
19																			19
20																			20
21	Electro Mechanical Switching.....	2215	36	48	49	57	62	64	67	66	64	65	68	70	69	72	70	72	21
22																			22
23	Operator Systems.....	2220	37	50	51	59	64	67	69	68	66	67	70	72	71	73	71	74	23
24																			24
25																			25
26	Radio System—Analog.....																		26
27	Radio Systems—Digital.....	22311	51	57	62	63	63	66	64	60	58	58	49	49	46	47	36	36	27
28	Circuit Equipment—Analog.....	22312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29	Circuit Equipment—Digital.....	22321	347	392	417	411	410	423	410	401	348	311	319	317	303	299	312	297	29
30		22322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
31																			31
32	Public Telephone Term Eq.....	2351	148	151	145	145	148	154	143	144	146	158	159	164	164	164	165	165	32
33																			33
34																			34
35	Poles.....	2411	33	37	39	41	42	45	47	49	51	50	54	58	59	59	60	61	35
36	Aerial Cable—Metallic.....	24211	44	47	49	49	51	58	61	64	64	68	74	72	70	71	72	70	36
37	Aerial Cable—Fiber.....	24212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
38	Underground Cable—Metallic.....	24221	48	52	54	53	55	64	67	71	69	75	82	78	75	76	78	75	38
39	Underground Cable—Fiber.....	24222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
40	Buried Cable—Metallic.....	24231	50	54	56	55	57	56	70	74	72	78	85	81	77	78	80	76	40
41	Buried Cable—Fiber.....	24232	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
42	Submarine Cable—Metallic.....	24241	43	45	48	48	50	56	59	62	61	65	71	69	68	69	71	70	42
43	Submarine Cable—Fiber.....	24242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
44	Intra Building Cable—Metallic.....	24261	43	47	49	48	50	58	61	64	63	68	74	71	69	70	72	70	44
45	Intra Building Cable—Fiber.....	24262	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
46	Aerial Wire.....	2431	33	36	38	38	40	45	47	50	50	55	58	57	57	59	61	62	46
47	Conduit Systems.....	2441	54	55	57	59	60	63	64	64	65	65	67	69	71	72	73	74	47
48																			48
49	Aerial Cable-FTTP (Distribution)...	24213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
50	Underground Cable-FTTP (Dist.)...	24223	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	Buried Cable-FTTP (Distribution)...	24233	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
52	Submarine Cable-FTTP (Dist.)...	24243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	Intra Building Cable-FTTP (Dist.)...	24263	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
54																			54

L I N E N O	COST INDEX NUMBER														L I N E N O										
	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1974	1975	1976	1977	1978	1979				
	9	9	9	9	9	9	9	9	9	9	9	9	9	9		J a n 1	J u l y 1	J a n 1	J u l y 1	J a n 1	J u l y 1	J a n 1	J u l y 1	J a n 1	J u l y 1
1	95	94	94	94	95	96	96	97	101	101	102	105	108	113	116	116	117	120	122	123	125	128	131	135	1
2																									2
3																									3
4	87	86	86	85	85	86	88	89	92	97	99	100	102	105	116	116	123	124	131	132	140	143	149	155	4
5	85	85	84	84	84	84	86	88	91	96	99	100	102	109	119	123	128	131	136	140	146	151	157	163	5
6	67	68	70	72	74	77	81	85	89	93	96	100	103	114	130	141	147	151	158	162	171	177	187	195	6
7	71	71	72	73	76	79	82	85	90	94	96	100	114	118	134	139	143	147	153	159	165	172	180	189	7
8	78	79	79	79	81	85	88	93	98	100	100	100	100	111	118	122	119	122	124	130	131	137	141	147	8
9																									9
10																									10
11	53	54	56	57	59	61	64	68	74	84	91	100	107	119	125	128	126	131	132	136	140	148	154	163	11
12	71	71	72	72	73	77	80	83	89	91	93	100	103	114	130	128	129	135	136	144	149	155	160	171	12
13	89	90	90	90	91	92	93	93	96	97	99	100	101	105	109	111	110	112	111	113	114	118	119	123	13
14	89	90	90	90	91	92	93	93	96	97	99	100	100	100	102	103	100	100	98	90	90	90	90	90	14
15																									15
16																									16
17	0	0	0	0	0	0	0	0	0	0	0	104	103	106	110	111	113	113	113	115	119	122	125	17	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	105	100	95	95	95	96	96	18
19																									19
20																									20
21	71	76	78	75	72	71	75	81	84	88	98	104	106	110	115	120	124	127	132	136	140	145	151	156	21
22																									22
23	73	77	79	76	72	71	76	81	85	89	98	104	106	108	111	114	117	119	121	122	125	128	132	136	23
24																									24
25																									25
26																									26
27	46	49	52	60	58	63	62	66	78	97	102	104	102	102	102	102	97	98	103	104	106	106	103	103	27
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29	273	234	228	214	224	210	173	159	163	128	108	104	105	108	111	112	111	111	115	118	118	119	120	122	29
30	0	0	0	0	0	0	0	0	0	0	0	104	104	104	105	105	110	116	121	126	126	127	123	120	30
31																									31
32	165	165	166	130	122	123	120	118	108	107	108	107	106	107	110	109	109	111	112	114	116	119	123	127	32
33																									33
34																									34
35	62	63	65	66	68	71	76	79	83	88	97	107	119	131	144	157	158	160	164	169	176	183	196	208	35
36	70	70	70	73	77	81	84	88	96	97	100	107	114	125	129	126	130	135	140	144	148	152	158	170	36
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
38	74	73	72	75	80	84	87	91	100	99	100	107	114	127	130	125	129	134	138	143	145	149	155	168	38
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
40	76	74	73	77	81	85	88	91	101	99	100	107	114	128	131	124	128	133	138	142	144	147	153	167	40
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
42	70	70	71	73	77	81	84	88	95	96	101	107	113	123	128	126	131	136	141	145	150	154	160	171	42
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
44	70	70	70	73	77	81	84	88	96	96	100	107	114	125	129	126	130	136	140	145	148	152	158	170	44
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
46	63	65	66	70	73	75	78	84	91	93	100	107	114	125	130	131	134	139	142	146	145	150	158	172	46
47	74	77	78	79	82	84	84	87	89	94	102	107	111	117	127	130	135	139	144	150	159	163	169	180	47
48																									48
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
54																									54

SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	P L A N T I N S E R V I C E D E S C R I P T I O N	F C C A S S E T	COST INDEX NUMBER																L I N E N O
			1980		1981		1982		1983		1984		1985		1986		1987		
			J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	J a n 1	J u l 1	
1	Total Plant.....		140	146	146	149	150	152	156	159	156	154	156	158	156	154	154	155	1
2																		2	
3																		3	
4	Motor Vehicles.....	2112	162	167	178	186	195	195	201	199	203	204	206	210	215	215	227	220	4
5	Aircraft.....	2113	170	180	195	205	215	217	224	223	227	228	230	234	238	237	233	231	5
6	Special Purpose Vehicles.....	2114	206	220	231	245	254	263	266	270	271	274	274	277	278	281	283	287	6
7	Garage Work Equipment.....	2115	200	213	223	234	241	248	250	251	253	257	260	263	264	267	268	270	7
8	Other Work Equipment.....	2116	153	165	170	181	183	189	189	189	189	190	192	197	199	202	204	205	8
9																		9	
10																		10	
11	Buildings.....	2121	176	183	188	193	192	198	200	206	210	218	223	224	228	234	234	239	11
12	Furniture.....	2122	174	182	187	199	210	213	215	222	224	229	232	238	242	245	248	252	12
13	Office Equipment.....	2123	125	130	132	136	137	140	140	143	142	142	140	142	143	143	143	146	13
14	General Purpose Computer.....	2124	90	90	90	90	87	83	76	69	59	48	48	48	48	47	47	47	14
15																		15	
16																		16	
17	Analog Electronic Switching.....	2211	130	140	149	163	168	175	183	188	193	199	202	204	205	208	210	210	17
18	Digital Electronic Switching.....	2212	96	96	97	97	94	90	84	77	67	57	57	57	57	56	56	56	18
19																		19	
20																		20	
21	Electro Mechanical Switching.....	2215	167	188	199	213	219	226	232	248	268	277	282	281	283	286	287	287	21
22																		22	
23	Operator Systems.....	2220	146	157	166	176	180	185	191	197	204	211	213	215	216	218	219	219	23
24																		24	
25																		25	
26																		26	
27	Radio System—Analog.....	22311	100	100	101	102	90	91	94	94	79	80	80	81	77	78	82	82	27
28	Radio Systems—Digital.....	22312	0	0	0	0	0	0	115	115	115	117	119	121	122	124	126	124	28
29	Circuit Equipment—Analog.....	22321	125	130	129	128	130	132	121	154	153	152	153	152	147	144	145	146	29
30	Circuit Equipment—Digital.....	22322	114	107	100	93	93	94	95	96	89	82	80	78	68	59	49	39	30
31																		31	
32	Public Telephone Term Eq.....	2351	132	141	145	150	158	167	190	196	201	206	210	212	213	217	219	218	32
33																		33	
34																		34	
35	Poles.....	2411	220	232	240	249	254	259	263	268	272	273	280	283	287	292	295	297	35
36	Aerial Cable—Metallic.....	24211	182	193	191	197	202	204	208	213	211	209	219	231	227	223	225	228	36
37	Aerial Cable—Fiber.....	24212	0	0	0	0	0	0	136	138	132	127	119	111	108	105	108	110	37
38	Underground Cable—Metallic.....	24221	181	192	187	191	195	196	199	203	197	193	204	217	212	205	206	209	38
39	Underground Cable—Fiber.....	24222	0	0	0	0	0	0	130	131	125	119	110	101	98	94	97	100	39
40	Buried Cable—Metallic.....	24231	180	192	186	189	192	193	195	199	192	187	198	212	205	198	198	201	40
41	Buried Cable—Fiber.....	24232	0	0	0	0	0	0	129	131	124	118	109	100	97	93	96	98	41
42	Submarine Cable—Metallic.....	24241	181	192	193	199	205	209	214	219	219	218	227	238	237	235	238	240	42
43	Submarine Cable—Fiber.....	24242	0	0	0	0	0	0	147	149	145	141	134	128	126	124	127	130	43
44	Intra Building Cable—Metallic.....	24261	182	193	191	197	202	205	209	214	211	210	220	231	228	224	226	230	44
45	Intra Building Cable—Fiber.....	24262	0	0	0	0	0	0	136	138	132	127	119	111	108	105	108	111	45
46	Aerial Wire.....	2431	182	191	198	206	210	214	219	225	232	239	243	248	250	252	253	253	46
47	Conduit Systems.....	2441	188	196	203	211	219	220	228	240	246	253	257	262	267	271	276	278	47
48																		48	
49	Aerial Cable-FTTP (Distribution)...	24213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
50	Underground Cable-FTTP (Dist.)...	24223	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	Buried Cable-FTTP (Distribution)...	24233	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
52	Submarine Cable-FTTP (Dist.)....	24243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	Intra Building Cable-FTTP (Dist.)..	24263	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
54																		54	

L I N E N O	COST INDEX NUMBER																								L I N E N O
	1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		
	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	
1	150	153	158	165	164	165	167	165	165	165	167	168	169	170	174	178	182	182	184	185	186	184	184	181	1
2																									2
3																									3
4	221	222	231	229	236	232	244	241	254	251	258	261	267	271	275	270	279	276	277	271	270	263	273	266	4
5	234	234	234	240	246	254	261	271	274	284	285	291	297	300	304	312	318	322	326	328	327	328	329	330	5
6	289	293	298	309	312	319	325	328	333	337	343	348	348	351	353	360	362	368	370	374	377	382	383	388	6
7	273	279	286	294	298	305	309	316	318	322	324	328	332	336	338	345	349	354	356	359	361	364	366	368	7
8	206	210	215	218	221	228	230	234	235	240	240	243	244	250	250	254	254	258	258	260	260	262	263	265	8
9																									9
10																									10
11	242	254	257	268	268	272	272	274	270	279	283	290	295	306	310	310	311	312	323	329	331	338	341	343	11
12	255	263	269	274	278	284	287	290	291	294	296	299	302	309	309	315	320	322	326	328	330	330	330	333	12
13	147	149	151	153	154	154	152	153	153	156	154	155	155	155	154	156	155	156	155	157	156	157	156	157	13
14	45	43	37	31	30	29	26	24	23	21	21	21	21	21	21	20	17	15	14	14	14	14	13	13	14
15																									15
16																									16
17	204	207	210	212	214	211	212	214	213	213	213	216	215	216	213	212	211	204	204	200	196	194	193	192	17
18	52	50	45	40	39	38	36	33	32	31	31	31	32	32	32	31	28	27	26	26	26	26	25	25	18
19																									19
20																									20
21	278	284	289	291	291	292	296	302	303	304	309	317	316	324	329	327	334	333	336	339	331	336	338	342	21
22																									22
23	213	216	217	218	218	218	220	223	224	224	227	231	231	236	238	236	239	240	239	239	234	237	237	239	23
24																									24
25																									25
26																									26
27	80	80	81	81	81	82	81	82	84	85	86	87	87	87	89	89	91	91	91	93	94	95	95	96	27
28	117	117	117	118	118	118	116	116	117	118	119	120	119	120	120	121	121	122	123	125	125	123	123	124	28
29	140	141	142	144	145	144	145	146	147	147	147	149	150	150	152	149	149	146	146	145	143	143	142	143	29
30	36	35	35	35	35	34	34	34	37	38	39	39	39	39	37	37	37	38	35	36	36	36	36	35	30
31																									31
32	205	209	212	214	216	213	213	215	214	214	213	216	215	216	213	212	211	204	204	200	196	195	194	192	32
33																									33
34																									34
35	278	285	291	295	300	304	310	315	319	327	331	338	352	365	368	369	379	385	400	402	406	413	418	421	35
36	226	237	257	275	273	277	282	277	279	275	281	282	283	282	294	310	319	323	325	328	333	324	322	314	36
37	94	87	85	89	89	89	90	90	89	90	89	88	87	88	89	90	91	91	92	93	94	94	94	95	37
38	210	221	244	265	261	265	270	261	263	256	262	260	260	257	270	289	299	304	305	308	312	299	297	285	38
39	84	75	73	77	76	76	77	77	76	76	75	74	73	72	72	73	74	75	75	76	76	77	77	77	39
40	204	215	240	262	257	261	265	256	257	249	256	253	252	249	262	283	293	298	298	301	306	291	288	275	40
41	82	73	71	75	74	74	75	75	74	74	73	72	71	69	70	71	72	73	73	73	74	74	74	75	41
42	235	244	260	274	274	277	283	278	282	279	285	286	287	288	298	310	319	323	324	327	332	325	325	319	42
43	114	107	106	111	111	111	113	113	113	114	113	114	113	113	114	115	118	119	119	120	121	122	123	123	43
44	227	238	257	275	273	277	282	277	279	275	281	282	282	282	293	309	318	323	324	328	333	324	322	314	44
45	95	87	85	90	89	89	90	91	90	90	89	89	88	87	88	89	91	92	92	93	94	94	95	95	45
46	249	261	270	278	279	283	290	291	293	298	302	305	307	312	320	324	329	332	334	337	341	344	342	342	46
47	269	277	301	309	311	309	316	308	307	310	314	320	325	331	336	340	345	347	350	353	355	358	362	366	47
48																									48
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
54																									54

SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	PLANT IN SERVICE DESCRIPTION	F C C A B B E	COST INDEX NUMBER																L I N E N O
			2000		2001		2002		2003		2004		2005		2006		2007		
			J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	
1	Total Plant.....		182	185	188	190	191	193	194	197	201	206	210	213	227	244	244	249	1
2																		2	
3																		3	
4	Motor Vehicles.....	2112	275	269	276	266	270	263	264	257	268	266	272	261	262	258	264	257	4
5	Aircraft.....	2113	334	343	351	359	362	364	369	377	387	393	408	417	424	438	447	450	5
6	Special Purpose Vehicles.....	2114	388	392	392	392	392	398	400	404	404	413	428	445	449	462	465	472	6
7	Garage Work Equipment.....	2115	369	372	373	377	376	376	377	378	379	387	393	403	408	416	422	430	7
8	Other Work Equipment.....	2116	266	267	268	273	271	272	271	273	273	275	276	278	278	275	278	279	8
9																		9	
10																		10	
11	Buildings.....	2121	353	359	364	374	377	384	385	407	412	425	431	441	443	457	472	11	
12	Furniture.....	2122	335	337	338	341	341	341	344	346	350	360	368	372	376	380	386	12	
13	Office Equipment.....	2123	156	157	157	158	159	158	158	157	159	160	158	162	161	161	160	161	13
14	General Purpose Computer.....	2124	12	11	9	9	7	7	6	4.8	3.4	3.4	3.3	3.3	3.0	2.8	2.6	2.7	14
15																		15	
16																		16	
17	Analog Electronic Switching.....	2211	193	193	193	190	189	190	189	190	189	190	190	189	187	193	196	186	17
18	Digital Electronic Switching.....	2212	25	24	22	23	23	23	21	22	22	22	22	22	22	23	23	23	18
19																		19	
20																		20	
21	Electro Mechanical Switching.....	2215	344	348	350	358	366	376	379	386	391	395	403	405	414	421	430	432	21
22																		22	
23	Operator Systems.....	2220	241	242	243	247	251	257	258	261	264	266	271	272	276	282	287	287	23
24																		24	
25																		25	
26																		26	
27	Radio System—Analog.....	22311	96	96	96	95	95	95	95	95	96	95	95	94	97	98	94	27	
28	Radio Systems—Digital.....	22312	125	125	126	127	128	127	125	125	126	127	127	128	129	130	130	28	
29	Circuit Equipment—Analog.....	22321	143	144	144	142	143	143	143	144	143	145	145	144	148	150	144	29	
30	Circuit Equipment—Digital.....	22322	36	36	36	37	37	38	38	39	38	39	39	39	40	40	41	30	
31																		31	
32	Public Telephone Term Eq.....	2351	193	193	193	191	190	190	190	191	190	191	190	189	187	193	195	186	32
33																		33	
34																		34	
35	Poles.....	2411	421	429	434	446	451	459	463	472	477	490	495	503	502	521	526	529	35
36	Aerial Cable—Metallic.....	24211	313	322	328	333	335	338	340	349	357	371	379	386	430	486	477	492	36
37	Aerial Cable—Fiber.....	24212	96	98	100	102	104	105	105	108	110	112	114	116	118	119	121	122	37
38	Underground Cable—Metallic.....	24221	281	289	295	299	298	299	299	307	314	326	334	340	394	461	448	466	38
39	Underground Cable—Fiber.....	24222	78	80	82	83	84	86	85	87	89	91	92	94	95	96	98	98	39
40	Buried Cable—Metallic.....	24231	271	278	284	287	285	289	286	293	300	312	320	326	383	456	441	460	40
41	Buried Cable—Fiber.....	24232	76	77	79	80	81	83	82	84	85	87	89	90	91	92	93	94	41
42	Submarine Cable—Metallic.....	24241	320	327	334	338	341	343	346	353	362	372	379	384	417	459	454	466	42
43	Submarine Cable—Fiber.....	24242	125	127	130	132	134	136	136	138	141	144	146	148	149	150	153	154	43
44	Intra Building Cable—Metallic.....	24261	313	322	328	333	335	338	340	349	357	370	378	385	429	483	474	489	44
45	Intra Building Cable—Fiber.....	24262	97	99	101	103	104	106	106	108	110	113	115	117	118	120	121	122	45
46	Aerial Wire.....	2431	348	355	362	368	372	377	381	391	399	412	419	427	446	466	465	472	46
47	Conduit Systems.....	2441	375	380	391	395	403	412	418	422	432	442	453	458	474	478	495	493	47
48																		48	
49	Aerial Cable-FTTP (Distribution)...	24213	0	0	0	0	0	0	0	0	0	100	97	95	92	89	88	87	49
50	Underground Cable-FTTP (Dist.)...	24223	0	0	0	0	0	0	0	0	0	100	99	98	98	97	96	96	50
51	Buried Cable-FTTP (Distribution)...	24233	0	0	0	0	0	0	0	0	0	100	102	105	104	103	103	102	51
52	Submarine Cable-FTTP (Dist.)...	24243	0	0	0	0	0	0	0	0	0	100	99	98	98	97	96	96	52
53	Intra Building Cable-FTTP (Dist.)...	24263	0	0	0	0	0	0	0	0	0	100	100	100	100	101	103	103	53
54																		54	

SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	COST INDEX NUMBER																								L I N E N O	
	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018					
	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1	J a n 1	J u n 1				
1	251	256	245	248	258	260	279	282	282	282	285	283	284	285	289	287	283	282	288	290	297				1	
2																									2	
3																									3	
4	263	257	272	273	274	269	272	273	280	279	286	282	291	287	291	295	299	298	305	301	307				4	
5	461	471	495	480	485	490	497	502	514	520	523	528	532	537	541	543	543	547	548	553	557				5	
6	476	485	499	504	503	503	507	518	529	541	548	555	557	564	566	570	572	576	577	581	583				6	
7	435	445	457	457	456	458	462	474	479	485	489	494	497	503	505	509	510	513	514	519	522				7	
8	281	286	290	286	286	288	288	290	291	294	295	296	304	307	309	315	318	322	322	324	327				8	
9																									9	
10																									10	
11	492	497	506	494	506	507	521	518	530	532	542	539	550	552	585	580	586	589	604	608	608				11	
12	389	402	417	415	418	420	415	429	433	437	433	437	439	450	449	454	454	455	457	461	464				12	
13	162	171	184	171	169	169	170	171	173	173	164	165	166	166	171	172	172	172	173	171	171				13	
14	2.7	2.6	2.6	2.1	2.01	1.98	1.97	1.49	0.82	0.66	0.67	0.50	0.57	0.60	0.55	0.63	0.64	0.65	0.73	0.71	0.67				14	
15																									15	
16																									16	
17	180	179	178	178	177	177	174	175	174	174	174	175	176	176	176	176	177	177	177	179	177				17	
18	24	24	25	25	25	25	25	25	26	26	26	27	27	27	27	28	28	28	28	29	29				18	
19																									19	
20																									20	
21	439	445	456	458	460	469	474	481	486	478	484	491	497	495	499	499	496	496	502	502	510				21	
22																									22	
23	288	292	297	299	300	305	307	311	313	309	312	317	320	319	322	322	320	321	324	325	329				23	
24																									24	
25																									25	
26																									26	
27	91	90	90	90	89	89	88	89	88	88	88	88	89	89	89	89	89	89	89	90	90				27	
28	131	132	134	134	135	137	138	138	137	138	138	138	138	138	139	140	140	140	140	141	141				28	
29	140	139	139	139	138	138	137	138	137	137	137	138	139	139	140	140	141	141	141	141	142	142				29
30	41	41	41	41	40	40	40	41	41	42	42	42	42	43	43	44	44	44	45	45	46				30	
31																									31	
32	180	179	177	178	177	177	174	175	173	174	173	174	175	175	176	176	177	176	177	179	177				32	
33																									33	
34																									34	
35	537	547	554	563	570	578	576	587	594	600	603	607	605	616	620	621	629	633	634	651	657				35	
36	494	507	461	473	506	509	573	582	577	576	582	572	573	573	578	570	555	551	566	568	591				36	
37	123	124	126	127	128	130	131	133	135	136	137	138	140	142	143	144	146	148	149	151	153				37	
38	465	481	421	435	475	476	555	562	554	552	556	544	542	540	544	533	513	506	523	524	549				38	
39	100	100	102	103	103	105	106	108	109	110	111	112	113	114	116	116	118	119	120	122	123				39	
40	459	475	410	425	467	467	553	560	550	547	552	538	536	533	537	524	501	493	511	511	537				40	
41	95	96	97	98	99	100	101	103	104	105	106	107	108	109	111	111	113	114	115	116	118				41	
42	468	479	447	458	484	486	535	541	539	540	545	539	541	542	547	544	534	532	546	548	566				42	
43	155	157	159	161	163	164	166	168	170	172	173	174	177	179	181	183	185	187	189	191	194				43	
44	491	504	459	471	504	507	570	578	573	573	578	569	569	570	575	567	553	549	564	566	588				44	
45	124	125	127	128	129	131	132	134	135	137	138	139	141	142	144	145	147	148	150	152	154				45	
46	475	488	469	478	496	501	519	528	525	527	531	530	533	538	543	543	540	541	551	556	569				46	
47	502	507	525	530	516	521	526	532	545	550	549	552	559	565	571	577	581	586	591	596	604				47	
48																									48	
49	82	77	75	73	65	58	55	53	52	50	50	50	50	50	50	49	50	49	49	50	50				49	
50	94	92	89	87	83	80	75	70	66	62	58	54	54	54	53	53	54	54	54	53	52				50	
51	92	82	78	74	71	68	66	63	61	59	57	54	54	55	54	54	54	53	53	54	54				51	
52	94	92	89	87	83	80	75	70	66	62	58	54	54	54	53	53	54	54	54	53	52				52	
53	104	105	90	75	68	61	54	47	43	39	39	39	39	39	38	38	39	44	43	43				53		
54																									54	

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility
Appraisal Work Papers
As of January 1, 2018

Cost Approach
United States Bureau of Labor Statistics Cost Indices

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Bureau of Labor Statistics Indexes

Index	Table	Region	Year	Begin Date	End Date	CPI	1 Communic Equipment pcu3342	2 Technical Labor ecu111221 linked CIU20154	3
	Earliest Year					1913	1986	1985	
	Index	Table	Region			1	2	3	
BLS	BLS	All	1991	1/1/1991	12/31/1991	136	109	84	
BLS	BLS	All	1992	1/1/1992	12/31/1992	140	110	88	
BLS	BLS	All	1993	1/1/1993	12/31/1993	145	112	92	
BLS	BLS	All	1994	1/1/1994	12/31/1994	148	113	95	
BLS	BLS	All	1995	1/1/1995	12/31/1995	152	114	97	
BLS	BLS	All	1996	1/1/1996	12/31/1996	157	115	100	
BLS	BLS	All	1997	1/1/1997	12/31/1997	161	116	102	
BLS	BLS	All	1998	1/1/1998	12/31/1998	163	115	106	
BLS	BLS	All	1999	1/1/1999	12/31/1999	167	113	109	
BLS	BLS	All	2000	1/1/2000	12/31/2000	172	110	114	
BLS	BLS	All	2001	1/1/2001	12/31/2001	177	109	119	
BLS	BLS	All	2002	1/1/2002	12/31/2002	180	105	123	
BLS	BLS	All	2003	1/1/2003	12/31/2003	184	102	127	
BLS	BLS	All	2004	1/1/2004	12/31/2004	189	98	132	
BLS	BLS	All	2005	1/1/2005	12/31/2005	195	97	135	
BLS	BLS	All	2006	1/1/2006	12/31/2006	202	97	139	
BLS	BLS	All	2007	1/1/2007	12/31/2007	207	96	146	
BLS	BLS	All	2008	1/1/2008	12/31/2008	215	97	152	
BLS	BLS	All	2009	1/1/2009	12/31/2009	215	97	155	
BLS	BLS	All	2010	1/1/2010	12/31/2010	218	97	157	
BLS	BLS	All	2011	1/1/2011	12/31/2011	225	96	161	
BLS	BLS	All	2012	1/1/2012	12/31/2012	230	96	164	
BLS	BLS	All	2013	1/1/2013	12/31/2013	233	95	167	
BLS	BLS	All	2014	1/1/2014	12/31/2014	237	96	170	
BLS	BLS	All	2015	1/1/2015	12/31/2015	237	96	173	
BLS	BLS	All	2016	1/1/2016	12/31/2016	240	96	176	
BLS	BLS	All	2017	1/1/2017	12/31/2017	245	94	179	
BLS	BLS	All	2018	1/1/2018	12/31/2018	247	94	180	

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AUS Consultants
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Index	Table	Region	Year	Begin Date	End Date	CPI	1 Communic Equipment pcu3342 linked CIU20154	2 Technical Labor ecu111221	3
Earliest Year							1913	1986	1985
Index	Table	Region					1	2	3
BLS	BLS	All	1913	1/1/1913	12/31/1913	10	7	6	
BLS	BLS	All	1914	1/1/1914	12/31/1914	10	7	6	
BLS	BLS	All	1915	1/1/1915	12/31/1915	10	7	6	
BLS	BLS	All	1916	1/1/1916	12/31/1916	11	8	7	
BLS	BLS	All	1917	1/1/1917	12/31/1917	13	10	8	
BLS	BLS	All	1918	1/1/1918	12/31/1918	15	11	9	
BLS	BLS	All	1919	1/1/1919	12/31/1919	17	12	10	
BLS	BLS	All	1920	1/1/1920	12/31/1920	20	14	12	
BLS	BLS	All	1921	1/1/1921	12/31/1921	18	13	11	
BLS	BLS	All	1922	1/1/1922	12/31/1922	17	12	10	
BLS	BLS	All	1923	1/1/1923	12/31/1923	17	12	10	
BLS	BLS	All	1924	1/1/1924	12/31/1924	17	12	10	
BLS	BLS	All	1925	1/1/1925	12/31/1925	18	13	11	
BLS	BLS	All	1926	1/1/1926	12/31/1926	18	13	11	
BLS	BLS	All	1927	1/1/1927	12/31/1927	17	12	10	
BLS	BLS	All	1928	1/1/1928	12/31/1928	17	12	10	
BLS	BLS	All	1929	1/1/1929	12/31/1929	17	12	10	
BLS	BLS	All	1930	1/1/1930	12/31/1930	17	12	10	
BLS	BLS	All	1931	1/1/1931	12/31/1931	15	11	9	
BLS	BLS	All	1932	1/1/1932	12/31/1932	14	10	8	
BLS	BLS	All	1933	1/1/1933	12/31/1933	13	9	7	
BLS	BLS	All	1934	1/1/1934	12/31/1934	13	9	7	
BLS	BLS	All	1935	1/1/1935	12/31/1935	14	10	7	
BLS	BLS	All	1936	1/1/1936	12/31/1936	14	10	7	
BLS	BLS	All	1937	1/1/1937	12/31/1937	14	10	7	
BLS	BLS	All	1938	1/1/1938	12/31/1938	14	10	7	
BLS	BLS	All	1939	1/1/1939	12/31/1939	14	10	7	
BLS	BLS	All	1940	1/1/1940	12/31/1940	14	10	7	
BLS	BLS	All	1941	1/1/1941	12/31/1941	15	11	8	
BLS	BLS	All	1942	1/1/1942	12/31/1942	16	12	9	
BLS	BLS	All	1943	1/1/1943	12/31/1943	17	13	10	
BLS	BLS	All	1944	1/1/1944	12/31/1944	18	14	11	
BLS	BLS	All	1945	1/1/1945	12/31/1945	18	14	11	
BLS	BLS	All	1946	1/1/1946	12/31/1946	20	16	12	
BLS	BLS	All	1947	1/1/1947	12/31/1947	22	18	13	
BLS	BLS	All	1948	1/1/1948	12/31/1948	24	20	14	
BLS	BLS	All	1949	1/1/1949	12/31/1949	24	20	14	
BLS	BLS	All	1950	1/1/1950	12/31/1950	24	20	14	
BLS	BLS	All	1951	1/1/1951	12/31/1951	26	22	15	

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Bureau of Labor Statistics Indexes

Index	Table	Region	Year	Begin Date	End Date	CPI	1 Communic Equipment pcu3342	2 Technical Labor ecu11221 linked CIU20154	3
Earliest Year							1913	1986	1985
Index	Table	Region					1	2	3
BLS	BLS	All	1952	1/1/1952	12/31/1952	27	27	23	16
BLS	BLS	All	1953	1/1/1953	12/31/1953	27	27	23	16
BLS	BLS	All	1954	1/1/1954	12/31/1954	27	27	23	16
BLS	BLS	All	1955	1/1/1955	12/31/1955	27	27	23	16
BLS	BLS	All	1956	1/1/1956	12/31/1956	27	27	23	16
BLS	BLS	All	1957	1/1/1957	12/31/1957	28	28	24	17
BLS	BLS	All	1958	1/1/1958	12/31/1958	29	29	25	18
BLS	BLS	All	1959	1/1/1959	12/31/1959	29	29	25	18
BLS	BLS	All	1960	1/1/1960	12/31/1960	30	30	26	19
BLS	BLS	All	1961	1/1/1961	12/31/1961	30	30	26	19
BLS	BLS	All	1962	1/1/1962	12/31/1962	30	30	26	19
BLS	BLS	All	1963	1/1/1963	12/31/1963	31	31	27	20
BLS	BLS	All	1964	1/1/1964	12/31/1964	31	31	27	20
BLS	BLS	All	1965	1/1/1965	12/31/1965	32	32	28	21
BLS	BLS	All	1966	1/1/1966	12/31/1966	32	32	28	21
BLS	BLS	All	1967	1/1/1967	12/31/1967	33	33	29	22
BLS	BLS	All	1968	1/1/1968	12/31/1968	35	35	31	23
BLS	BLS	All	1969	1/1/1969	12/31/1969	37	37	33	24
BLS	BLS	All	1970	1/1/1970	12/31/1970	39	39	35	25
BLS	BLS	All	1971	1/1/1971	12/31/1971	41	41	37	26
BLS	BLS	All	1972	1/1/1972	12/31/1972	42	42	38	27
BLS	BLS	All	1973	1/1/1973	12/31/1973	44	44	40	28
BLS	BLS	All	1974	1/1/1974	12/31/1974	49	49	44	31
BLS	BLS	All	1975	1/1/1975	12/31/1975	54	54	49	34
BLS	BLS	All	1976	1/1/1976	12/31/1976	57	57	52	36
BLS	BLS	All	1977	1/1/1977	12/31/1977	61	61	56	38
BLS	BLS	All	1978	1/1/1978	12/31/1978	65	65	60	40
BLS	BLS	All	1979	1/1/1979	12/31/1979	73	73	67	45
BLS	BLS	All	1980	1/1/1980	12/31/1980	82	82	75	50
BLS	BLS	All	1981	1/1/1981	12/31/1981	91	91	83	55
BLS	BLS	All	1982	1/1/1982	12/31/1982	97	97	89	59
BLS	BLS	All	1983	1/1/1983	12/31/1983	100	100	92	61
BLS	BLS	All	1984	1/1/1984	12/31/1984	104	104	96	63
BLS	BLS	All	1985	1/1/1985	12/31/1985	108	108	100	65
BLS	BLS	All	1986	1/1/1986	12/31/1986	110	110	102	66
BLS	BLS	All	1987	1/1/1987	12/31/1987	114	114	104	69
BLS	BLS	All	1988	1/1/1988	12/31/1988	118	118	104	72
BLS	BLS	All	1989	1/1/1989	12/31/1989	124	124	106	76
BLS	BLS	All	1990	1/1/1990	12/31/1990	131	131	108	80

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Index	Table	Region	Year	Begin	End	1	2	3	4	5	6	7
						Switch Gear	Relays	Battery Systems	Power Systems	Alarm Systems	Motors & Generators	Emergency Generators Means Ref
						PCU3353	PCU3363	PCU3369		PCU33429	PCU33531	26 32 13.13
				Date	Date	13335313	14336314	12336912	Calculation	03342901	2335312	2600
						30%	30%	40%	Composite			
Earliest Year						1987	1987	1987	1987	1987	1987	1987
Index	Table	Region				1	2	3	4	5	6	7
POW	POW	All	1987	1/1/1987	12/31/1987	103.6	103.9	125.0	112.3	100.1	110.8	83.4
POW	POW	All	1988	1/1/1988	12/31/1988	108.7	106.6	126.7	114.7	101.6	116.4	83.7
POW	POW	All	1989	1/1/1989	12/31/1989	113.5	110.9	133.5	120.7	104.3	123.3	83.9
POW	POW	All	1990	1/1/1990	12/31/1990	118.5	115.4	137.8	125.2	103.4	127.5	84.1
POW	POW	All	1991	1/1/1991	12/31/1991	121.6	120.5	142.7	129.8	101.9	129.7	84.3
POW	POW	All	1992	1/1/1992	12/31/1992	123.6	123.3	146.1	132.5	102.2	131.5	84.8
POW	POW	All	1993	1/1/1993	12/31/1993	125.9	126.9	149.3	135.6	103.2	133.5	85.0
POW	POW	All	1994	1/1/1994	12/31/1994	128.7	128.3	151.2	137.8	104.2	134.2	90.6
POW	POW	All	1995	1/1/1995	12/31/1995	132.4	130.7	154.5	140.7	106.5	137.5	95.1
POW	POW	All	1996	1/1/1996	12/31/1996	133.6	133.6	157.5	143.2	108.3	139.1	95.3
POW	POW	All	1997	1/1/1997	12/31/1997	135.0	137.8	158.3	145.2	109.4	138.6	99.1
POW	POW	All	1998	1/1/1998	12/31/1998	138.2	140.4	164.2	149.3	111.3	139.8	99.6
POW	POW	All	1999	1/1/1999	12/31/1999	141.0	142.8	165.5	151.3	109.4	139.9	99.8
POW	POW	All	2000	1/1/2000	12/31/2000	143.3	144.4	169.9	154.3	108.4	140.4	100.0
POW	POW	All	2001	1/1/2001	12/31/2001	147.6	148.2	178.2	160.0	109.0	141.6	102.9
POW	POW	All	2002	1/1/2002	12/31/2002	149.8	150.0	179.4	161.7	110.4	142.0	103.4
POW	POW	All	2003	1/1/2003	12/31/2003	151.1	152.3	185.1	157.1	110.8	142.4	103.8
POW	POW	All	2004	1/1/2004	12/31/2004	153.7	155.2	185.1	158.7	109.8	145.8	104.3
POW	POW	All	2005	1/1/2005	12/31/2005	160.4	160.0	186.9	162.9	110.6	154.4	104.7
POW	POW	All	2006	1/1/2006	12/31/2006	167.5	167.6	175.6	170.8	113.1	161.8	104.9
POW	POW	All	2007	1/1/2007	12/31/2007	179.4	173.0	182.5	178.7	113.8	169.6	111.0
POW	POW	All	2008	1/1/2008	12/31/2008	187.5	179.3	189.4	185.8	116.0	177.7	123.0
POW	POW	All	2009	1/1/2009	12/31/2009	193.1	184.7	193.4	190.7	116.8	181.8	126.4
POW	POW	All	2010	1/1/2010	12/31/2010	195.1	190.3	191.8	192.3	117.8	185.4	130.9
POW	POW	All	2011	1/1/2011	12/31/2011	192.2	194.5	192.8	193.1	118.4	196.5	130.9
POW	POW	All	2012	1/1/2012	12/31/2012	199.0	196.4	197.1	197.5	119.9	201.2	139.8
POW	POW	All	2013	1/1/2013	12/31/2013	201.5	200.1	195.5	198.7	121.5	203.2	121.9
POW	POW	All	2014	1/1/2014	12/31/2014	200.4	202.7	196.9	199.7	122.2	206.1	108.5
POW	POW	All	2015	1/1/2015	12/31/2015	199.3	205.7	195.1	199.5	122.4	206.4	111.9
POW	POW	All	2016	1/1/2016	12/31/2016	199.5	206.8	192.4	198.9	122.4	206.6	111.9
POW	POW	All	2017	1/1/2017	12/31/2017	200.4	209.9	191.4	199.7	122.6	206.5	111.9
POW	POW	All	2018	1/1/2018	12/31/2018	201.9	211.0	194.2	201.6	122.6	204.9	119.7

Power Index Summary

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Depreciation & Obsolescence

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DEPRECIATION AND FUNCTIONAL OBSOLESCENCE

An important step in the appraisal of property using the cost approach is the determination of the depreciation or condition of the property. Depreciation in this appraisal was segregated into normal (mostly physical) depreciation and functional obsolescence. The normal depreciation was determined based on the age of the property and its normal service life; while, functional obsolescence was based on the impact on the property's remaining life caused by factors such as changing technology, service requirements, and competition.

Depreciation - The depreciation was determined based on the property's age and its normal service life using the following formula:

$$\text{Condition} = \frac{\text{Remaining Life}}{\text{Age} + \text{Remaining Life}}$$

or

$$\text{Depreciation} = \frac{\text{Age}}{\text{Age} + \text{Remaining Life}}$$

Where: Remaining Life = $f(\text{Age, Survival Characteristic, Normal Service life})$

Functional Obsolescence - The obsolescence inherent in the property was determined using the above described normal service life in comparison to the property's service life is adjusted for functional factors. The obsolescence was quantified based on the difference between the property's normal service life and its functional service life. The following formula was used to calculate the obsolescence:

$$\text{Obsolescence} = \frac{\text{Normal Service Life} - \text{Functional Service Life}}{\text{Normal Service Life}}$$

Service Lives - (normal versus functional) - The service life of property is that period of time in which it provides the service to which it was designed and placed into service. In most industrial properties there is a difference between a property's normal or physical life and its functional life. A piece of equipment may physically last for an extended

period; however, as that property ages changing technology, improvements or enhancement in similar equipment, functional and or service requirements change resulting in decreased utility of the existing equipment, and therefore decrease in value to it owner, this additional deterioration over that defined by the equipment's normal life is functional obsolescence.

Wastewater Industry Service Lives

The service lives used in the depreciation and functional obsolescence calculations were developed based on the property and its use, AUS Consultants' experience in developing depreciation studies for the water and wastewater industries. The following table details the lives used in the depreciation portion of the replacement cost new less depreciation analysis:

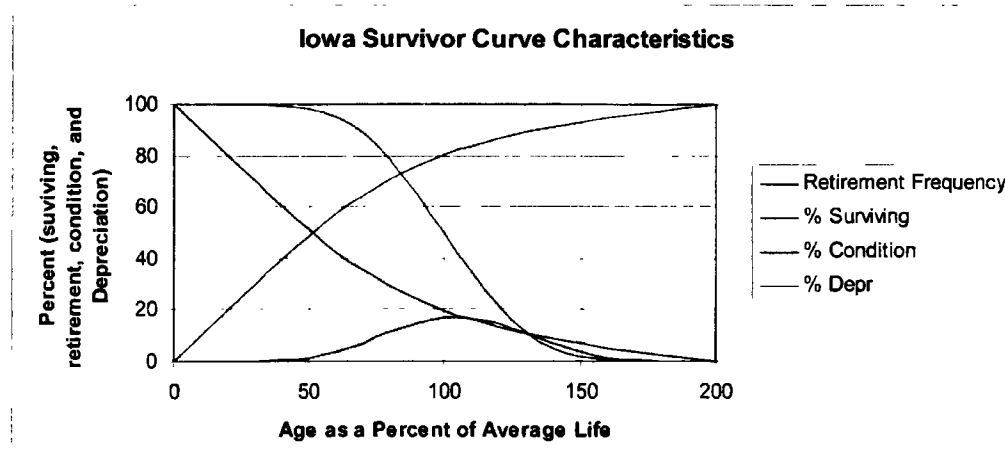
Pennsylvania American Water Company
 Exeter Township Wastewater Utility
 Wastewater
 Potential Purchaser: Investor-Owned Utility
 First Quarter 2017

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Reproduction Cost New Studies									
(1)	(2)	(3a)	(3b)	(3)		(3d)	(4)		(5)
Account Number	Description	Costing Parameters	Table	Line Reference	Lookup	Iowa Survivor / Retirement Curve	Normal Service Life	(4c)	Economic Obsolescence
		Index Series					years		years
	Non-Depreciable								
353	Land/Land Rights Pumping	US BLS	CPI	CPI	US BLS CPI/PI	Non-Depreciable			0%
	Depreciable								
354 30	Structures & Improvements - Pumping	HW	W-1	8	HW-18	R4 0	45	45-R4	0%
354 40	Structures & Improvements - Treatment	HW	W-1	8	HW-18	R4 0	45	45-R4	0%
355 00	Power Generated Equipment	HW	W-2	9	HW-19	R3 0	25	25-R3	0%
360 00	Conveyance Mains - Force	HW	W-1	34	HW-134	R3 0	65	65-R3	0%
361 00	Collection Mains - Gravity	HW	W-2	34	HW-134	R3 0	80	80-R3	0%
363 00	Service Laterals	HW	W-1	39	HW-139	R3 0	45	45-R3	0%
364 00	Flow Meters	HW	W-1	40	HW-140	R3 0	25	25-R3	0%
371 00	Pumps & Controls	HW	W-1	9	HW-19	R3 0	25	25-R3	0%
380 00	Treatment & Disposal Equipment	HW	W-1	16	HW-116	R3 0	45	45-R3	0%
390 00	Office Furniture & Equipment	US BLS	PPI	122	US BLS PPI 122	R3 0	15	15-R3	0%
391 00	Transportation Equipment	US BLS	PPI	1411	US BLS PPI 1411	R3 0	7	7-R3	0%
393 00	Tools, Shop & Garage Equipment	US BLS	PPI	1132	US BLS PPI 1132	R3 0	20	20-R3	0%
394 00	Laboratory Equipment	US BLS	CPI	CPI	US BLS CPI (CPI)	R3 0	12	12-R3	0%
395 00	Power Operated Equipment	US BLS	PPI	112	US BLS PPI 112	R3 0	15	15-R3	0%

Iowa Survivor Curves

The Iowa Survivor Curves recommended in this appraisal are used to determine the remaining life of the property, and therefore its condition, recognizing the properties' service life and age. The Iowa Survivor Curves allows the appraiser to recognize the property being studied (mains, treatment and pumping plant equipment etc placed in a particular year, say 1985) is part of a larger group of property, i.e., all the property i.e., mains, treatment and pumping plant equipment, etc. As such, the service lives which we refer to in our appraisal are an average service lives for the group, i.e., the average life of all mains, treatment and pumping plant equipment, etc. The Iowa Survivor curve allows the appraiser to calculate the remaining life, and therefore condition, of a subset of the group (the mains placed in 1985) based on the groups': (1) Iowa Survivor Curve,

(2) Service Life and the (3) age of property at the appraisal date. An Iowa Survivor Curves depicts how property from a group survives and retires about that groups' average life.

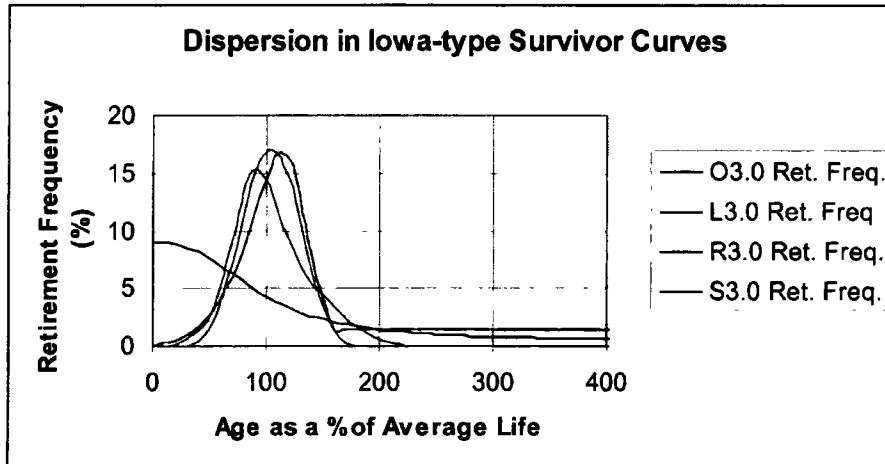


The above figure depicts a typical Iowa-type survivor curve, an S3.0 Iowa-type survivor curve. In this case the survivor curve has been generalized to a service life of 100% of the property's average life, in this generalized form the survivor curve statistics can be utilized with any individual service life in the age-life service life and depreciation calculations. There are four characteristics displayed in the above chart depicting the manner in which property survives and retires about the group's average life, those characteristics are: the retirement frequency (blue), the percent surviving (red), the percent condition (brown) and the percent depreciated (green). The retirement frequency represents the retirement of individual property items about the group's average service life. As can be seen the retirements are distributed about the group's average life with some items retiring before the average life and some items retiring at or after the group's service life. The group's survivor curve is developed from subtracting the retirements as they occur as the property ages. The depreciation curve depicts how much of the property group's life has been consumed; while, the condition curve depicts how much of the property group's life remains. The condition and depreciation curves are complementary in that condition equals 100% minus depreciation and vice versa.

The theory of Iowa Survivor Curves was presented in the 1920s and 30s by Robley Winfrey based on research at Iowa State University (then the Iowa Engineering Experiment Station). Winfrey's research was first published in Bulletin 103 - Life Characteristics of Physical Property and Bulletin 125 - Statistical Analysis of Industrial Property Retirements. (Incidentally, both publications are out of print, I have a copy of Bulletin 125 but not Bulletin 103, I'm still trying to get a copy of that piece of depreciation literature.). Bulletin 125 was updated in 1967 by Professor Harold Cowles of Iowa State University's Department of Industrial Engineering. In conducting his research, Winfrey collected data on industrial property survival and retirement from various sources and

analyzed that data as a function of property's age at retirement and ultimately the property groups' service life when all the property in the group was fully retired.

Winfrey discovered the industrial property's survival and retirement fits three basic patterns with relationship to the property's average life:



Symmetrically moded (S-type lowa Survivor Curves) (green) – The S-type lowa Survivor Curve is one wherein the property's retirements are symmetrically distributed about the mode. Mode in statistics is defined as the highest frequency, in this case retirement frequency. Thus an S-type lowa curve is like a normal curve; however, its shape is not identical to a normal distribution function.

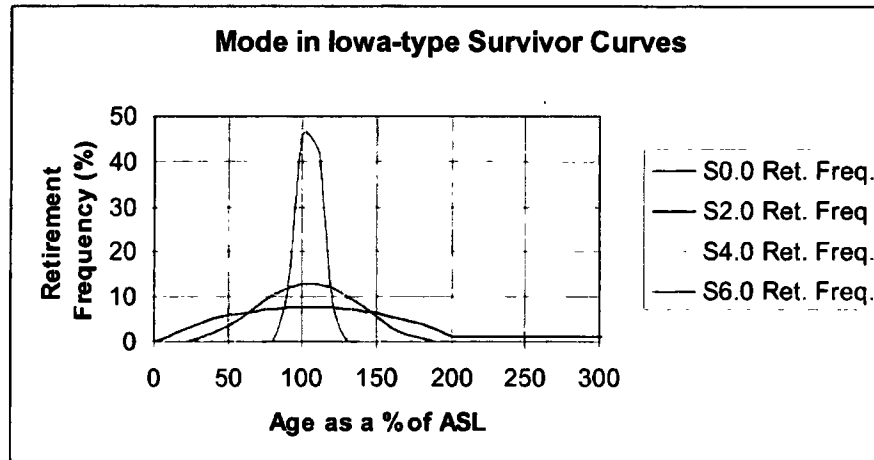
Right moded (R-type lowa Curves) (brown) – the R-type lowa curve has its mode skewed to the right of the property's average life; therefore the retirements tend to be distributed later in the property's life and there are less retirements earlier in the property's life.

Left moded (L-type lowa Curve) (red) – The L-type lowa curve has its mode skewed to the left of the property's average life; therefore the retirements tend to be distributed earlier in the property's life and there are less retirements later in the property's life.

In the utility industry, the plant, i.e., mains, treatment and pumping plant equipment tends to have a R-type survival/retirement dispersion as it is designed to provide service over extended periods, requiring little maintenance, and its designers have significant experience in designing and placing such property.

In conjunction with the above described R-, S-, and L-type survival/retirement patterns, Winfrey determined that there were several patterns of the manner in which the retirements' peakedness occur around the average life. In this case, Winfrey described the peakedness of the property retirements with peakedness enumerations of 0, 1, 2, 3, 4, 5, and 6. The low peakedness numbers 0 and 1 represent low levels of retirements being distributed over the property's entire life, while high peakedness numbers, 5 and 6 represent retirement patterns where the majority or all the retirements occur tightly

grouped around the property's average life. Peakedness numbers 2, 3, and 4 are middle of the road, so to speak, in terms of peakedness.



Origin moded (O-type) survivor curve (blue) – Harold Cowles in his 1967 update of Bulletin 125 introduced the O-type survivor curve with the mode of the curve at the origin or at age equal to zero (0) years. This class of lowa curves was over looked by Winfrey possibly because it made little intuitive sense that industrial retirement of property would have their maximum retirement frequency at age equal to zero. However, Cowles felt for completeness they should be included. O-type survivor curves do reflect the survival pattern of intangible assets.

lowa-type survivor curves are parametric, as opposed to formalistic, in that they were derived from empirical survival/retirement data which Winfrey collected. There are lowa curve equations are presented in Bulletin 125; however in most cases users reference standardized lowa Survivor Curve tables. The lowa-type survivor curves used in this appraisal have been generalized to a service life of 100% of the property's average life. By generalizing the service life to 100% of average life these tables can be used to generate survival and retirement statistics for property of any service life.

It should be apparent that lowa-types survivor curves are valid for any type property as the curves only depict how that property survives and retires about the average life of a group of similar property.

Generalized lowa-type Survivor Curves

As was discussed earlier, most users of the lowa-type survivor curves use standardized tables of lowa curves. The most usable form of these standardized tables are tables which have been generalized to a standard life of 100% of the property's average life. Based on these generalized tables the user can determine the property's remaining life by knowing the lowa-type survivor curve (mode and peakedness characteristics), the property's (group's) service life, and the specific property's (for which the remaining life

is desired) age. The following table reflects how the remaining life, as well as its condition, is determined:

Year	Study Date	Age	Iowa Curve	Service Life	Age % of ASL	Iowa Lookup	Iowa Condition	Remaining Life	Total Life	Condition
		years		years	%			years	years	%
Input		Calc	Input	Input	Calc	Calc	lookup	Calc	Calc	Calc
1970	2006	35.5	R3.0	25	142	R3.0142	0.066388	1.7	37.2	4.47%
1980	2006	25.5	R3.0	25	102	R3.0102	0.192543	4.8	30.3	15.88%
1990	2006	15.5	R3.0	25	62	R3.0062	0.442050	11.1	26.6	41.62%
2000	2006	5.5	R3.0	25	22	R3.0022	0.787294	19.7	25.2	78.16%
2004	2006	1.5	R3.0	25	6	R3.0006	0.941117	23.5	25.0	94.01%
2005	2006	0.5	R3.0	25	2	R3.0002	0.980320	24.5	25.0	98.00%

The above table was developed with reference to the standardized Iowa Survivor curves contained and represent a R3.0 25 year Iowa curve and life table. The standardized Iowa Curves are located in tab database. In order to reference the proper line of the Iowa Curve data the user looks up that data by reference to the property's age as percent of the service life (age % of ASL column) and the Iowa Survivor curve (Iowa Curve column), combining these two criteria the Iowa Lookup column will get the user to the proper Iowa Curve data.

In the above calculation the Iowa-type survivor curve is R3, the service life of the group is 25 years, and its age is defined by property's accounting records which specifies the investment in property by account (A group in service life terms) and by the year of installation of that property. The age is dependent upon the appraisal year (study date) and the year of placement. It is customary to assume that the property placed in any particular placement year was placed continuously during that year and therefore its age is best represented as if that investment was placed in the middle of the year, i.e., July 1; hence, the adoption of the "mid-year" convention where all property is treated as if placed the mid-year.

Service Life and Survival/retirement pattern

The service life and survival/retirement pattern are determined by an analysis of historical survival and retirement experience of the company's property. This historical experience must be adjusted for factors which are known to be impacting the property's service life but may not exhibit their effect on the property's retirement. Here it is important that a distinction is made between industrial property's physical service life and its functional service life. While physically a type of property may be deployed and remain in use for many years, over those years factors of changing technology, consumers demand and patterns, and even regulation, lessen the property functional life when compared to its physical life. In an industry such as the communications industry, function obsolescence is the primary driver of depreciation.

The following table details the impact of the above described lives on the condition calculations:

Year	Study Date	Age	Iowa Curve	Service Life	Age % of ASL	Iowa Lookup	Iowa Condition	Remaining Life	Total Life	Condition
		years		ASL years	%			years	years	%
Input		Calc	Input	Input	Calc	Calc	lookup	Calc	Calc	Calc
1970	2006	35.5	R3.0	30	118	R3.0118	0.131771	4.0	39.5	10.02%
1979	2006	26.5	R3.0	30	88	R3.0088	0.264919	7.9	34.4	23.07%
1981	2006	24.5	R3.0	25	98	R3.0098	0.211333	5.3	29.8	17.74%
1989	2006	16.5	R3.0	25	66	R3.0066	0.411848	10.3	26.8	38.42%
1990	2006	15.5	R3.0	20	78	R3.0078	0.327281	6.5	22.0	29.69%
2000	2006	5.5	R3.0	20	28	R3.0028	0.731331	14.6	20.1	72.67%
2004	2006	1.5	R3.0	20	8	R3.0008	0.921605	18.4	19.9	92.47%
2005	2006	0.5	R3.0	20	3	R3.0003	0.970499	19.4	19.9	97.49%

Statistical Analyses of Industrial Property Retirements

by
Robley Winfrey



BULLETIN 125
REVISED

ENGINEERING RESEARCH INSTITUTE
IOWA STATE UNIVERSITY • AMES, IOWA

IOWA CURVES

Iowa-type survivor curves are based on a set of empirical data collected (mainly in the 1930s) for the purpose of statistically predicting future service expectancy (remaining service) for physical properties.

The techniques used and methods applied are exactly analogous to those used by the insurance industry for the purpose of predicting human mortality (life expectancy) when determining appropriate insurance premium rates. The only distinction to be made is that the life insurance companies are investigating the life or longevity characteristics of human beings and the studies which developed the Iowa-type survivor curves were developed to predict the longevity or service life experience for physical, inanimate objects. The seminal statistical analyses for industrial property were conducted under the auspices of the Iowa Research Station now known as Iowa State University and were published in Statistical Analyses of Industrial Property Retirements, Bulletin 125, Engineering Research Institute, Iowa State University.

From the preface to the revised 1967 edition of Bulletin 125:

"With the original publication of Bulletin 125 by the Iowa Engineering Experiment Station in 1935 (now known as the Engineering Research Institute), a significant contribution was made to the practice of industrial property life estimation. This was in the form, first, of a single volume, readily available, which presented in considerable detail the procedures for statistically analyzing historical property retirement data. Secondly, but no less significant, was the presentation of a set of 18 generalized density functions descriptive of industrial property retirement dispersion, mathematically described in terms of the Pearson frequency curve family, but with parameters established empirically from the analysis of a wide range of actual retirement experience.

These curves, the cumulative form of which are commonly referred to as the Iowa-type Survivor Curves, have been used extensively since their introduction and, at the present time, the set is accepted as the standard of industrial property retirement dispersion. Because of the very simple mnemonic coding system which suggests the varying statistical characteristics involved, the Iowa Curves have also become widely used and recognized in the identification or classification of retirement dispersions, even for patterns derived in terms of analytical techniques not using the Curves."

The tables which follow this discussion are the ones used to estimate the remaining life of investment at particular age for an account with a particular service life.

Statistical Analyses of Industrial Property Retirements

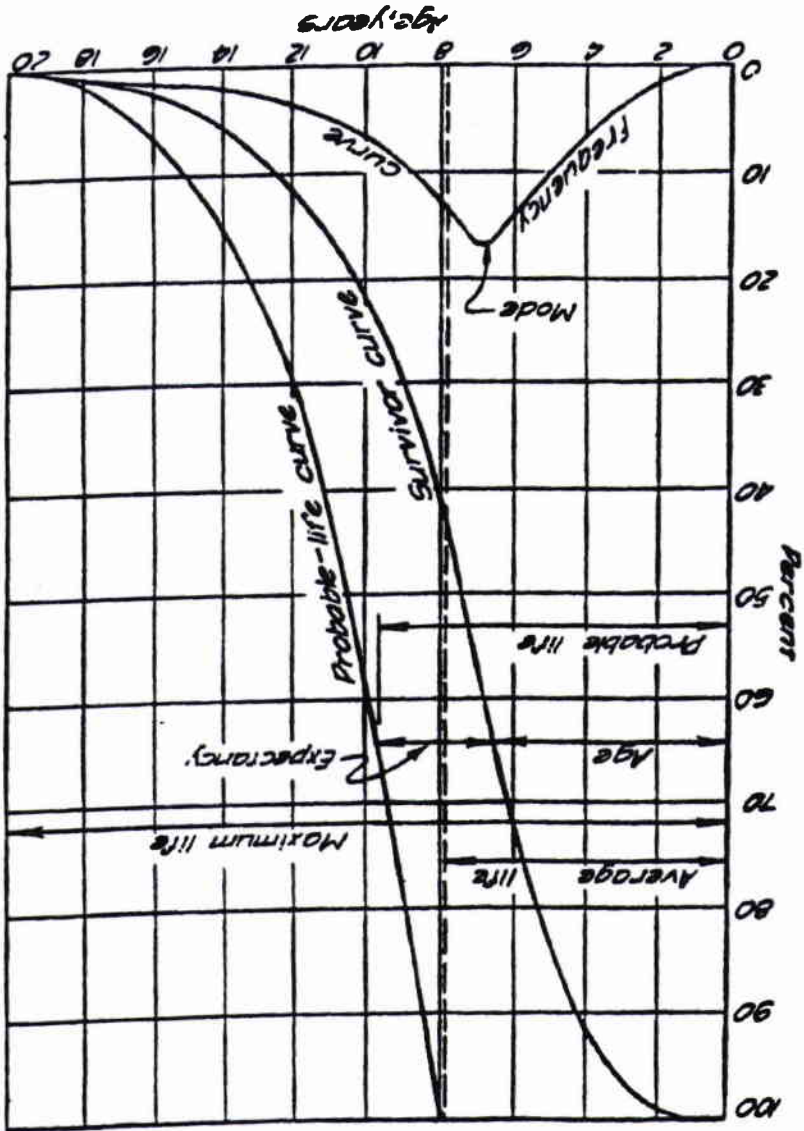
by **Robley Whitrey**

(Revised April, 1967 by Harold
A. Cowles, Professor, Department
of Industrial Engineering)

Originally printed as
BULLETIN 128
of the
IOWA ENGINEERING EXPERIMENT STATION
December, 1935

ENGINEERING RESEARCH INSTITUTE
Iowa State University, Ames, Iowa

FIG. 1.—A typical survivor curve and its derived curves.



8. The *service life* of a unit is that period of time (or service) extending from the date of its installation to the date of its retirement from service. While the service life of physical property is usually expressed in years it may also be expressed in terms of units of production (screws, wheels, cars, pounds, miles, car-miles), time units of less than a year (months, hours, minutes), or combinations of physical units or services and time (lamp-hours, ten-years).

9. The *probable service life* of an individual unit is that period of time extending from its date of installation to the forecasted date when it probably will be retired from service.

10. The *expectancy of life* of an individual unit is that period of time extending from the observation age (usually the present) to the forecasted date when the unit probably will be retired from service. Age plus expectancy always equals probable life.

11. The *average service life* of a group of individual units is the quotient obtained by dividing the sum of the service lives of all the units by the number of units. The average service life (in years) is equal to the area under the survivor curve in percent-years (or unit-years) divided by 100 percent (or the total number of units).

12. The *probable average service life* of a group of individual units is the average of the probable service lives of the units of the group.

13. The *expectancy of life* of a group of individual units is that period of time extending from the observation age (usually the present) to the average of the forecasted dates when the units probably will be retired. The observation age plus the expectancy always equals the probable average service life.

Note: Service life and average service life are always known quantities since they represent completed service life; probable service life and probable average service life always must be estimated since they are forecasts of uncompleted service.

14. *Maximum life* or *maximum age* is the age of the last unit of a given group to be retired from service; it is also the age at which the survivor curve has a zero ordinate, or zero percent surviving.

15. Property units which are taken out of service for any reason whatsoever are called *retirements*. Retirements may include original units (units of the initial installation) as well as "second-generation" units, that is, replacements (or renewals) which were installed to take the place of the original units as they were removed.

16. *Replacements* are the units put in service to replace retirements.

17. *Renewals* are replacements "in kind" which have exactly the same life characteristics as the retirements.

18. *Installations* are new units placed in service, not as replacement units, but as additions to the property.

19. All renewals, replacements, and installations are *placements*.

20. *Survivor curves* show the number of units of a given group

which are surviving in service at given ages. The ordinates to the curve give at any particular age the percentage (or the actual number) of the original number which are yet surviving in service. The abscissa is measured in years or other suitable service unit. The *original survivor curve* is the curve drawn through the points calculated from the original data without adjustment. Since this original survivor curve is generally irregular it is smoothed to produce a *smoothed survivor curve*, sometimes referred to as an *adjusted curve*.

Survivor curves have in some publications been referred to as *mortality curves*. However, the term *survivor curve* is used in this report because the curves referred to show the *percent surviving*, not the *percent retired*, and because the term *mortality* suggests human beings and not inanimate objects.

21. A *stub survivor curve* is an incomplete survivor curve; that is, one which does not extend to zero percent surviving because of a lack of retirement data on the longer-lived units.

22. A *probable-life curve* shows the probable average life of the survivors at any age from zero to maximum life.

23. If the percent surviving is read at the beginning of each successive age-interval and the differences in these successive readings plotted at ages corresponding to the midpoints of the intervals, the resulting points form a *frequency curve*, or *distribution curve*. Since the ordinates indicate the percentage of the units retired during each interval, the curve shows in what manner the retirements are distributed over the period from zero age to maximum life.

24. The point on the frequency curve having the highest ordinate is called the *mode*. The year in which the mode occurs is called the *modal year*.

25. A *maximum-life cycle* is a period of time corresponding in length to the maximum life of the units. An industrial property may continue to be operated through several maximum-life cycles of some of the units of which it is composed.

26. An *average-life cycle* is a period of time corresponding in length to the average life.

27. If a property is continued in service for a long time and maintained with a constant number of like units of substantially the same potential average life, it will reach a *normal condition* or *stabilized condition*, after which the average age of the units in service and the annual renewals will be constant year after year.

28. *Normal renewals* are the annual renewals after the property group has reached a stabilized condition. Normal renewals, in percent of the original number of units, are equal to 100 percent divided by the average life.

29. *Generalized curves* are those whose ordinates are expressed in percent of the total number of units and whose abscissas (age) are expressed in percent of average life.

30. *Type curves* are those theoretical curves derived by the methods described in this report from a study of actual retirements. They depict typical survivor and frequency curves for industrial property. Actual survivor curves are compared with type survivor curves in the process of determining probable average lives.

MORTALITY TABLES AND CURVES OF HUMAN BEINGS

By a study of population and deaths, life insurance companies have arrived at life tables for human beings of different nationalities. From these life tables the normal death rate and life expectancy for people at different ages can be determined as a basis for life insurance premiums and reserves. Life tables can be prepared from the vital statistics for any desired number of years in combination with census returns. By means of mathematical formulas a life table is adjusted to remove any slight irregularities that may exist in the original data.

Table 1 is the United States life table for white males, based upon deaths for the 10 years from 1901 to 1910. Unlike industrial property units whose average lives are continually being affected by many forces, the human average life and distribution of deaths according to age change very little over several generations. The life curve, however, varies considerably for different races as is illustrated in Fig. 2. The deaths at different ages are shown for the United States by the frequency curves in Fig. 3.

This reference to the United States life tables is made to show the similarity between the life characteristics of human beings and industrial properties. The essential differences are three. First, human beings experience a heavy infant mortality which results in a bi-modal frequency curve, one mode occurring between ages 0 and 1, and the other between ages 75 and 76. Second, the mode at the age-interval 75-76 occurs at a much greater percentage of average life than is usually found with physical property employed in industry. Third, the curves for industrial equipment vary in shape over wide limits while human mortality curves vary relatively little. The Makehamized curve in Fig. 3 is one that has been smoothed. (It does not represent the same group of lives as the lower curves of the figure.)

ANALYZING RETIREMENT DATA

The foregoing section discussed the life tables for humans and the accompanying curves. Similar analyses can be made of the behavior of the physical equipment employed in industry when sufficient information is available. The processes employed for analyzing the retirements of industrial property are not so easily handled as are those employed for mortality data of human beings, nor are the results usually as uniform because of the small number of units observed and the more numerous, less uniform causes of retirement of industrial

SURVIVOR, PROBABLE LIFE AND FREQUENCY CURVES
FOR THE RIGHT-MODAL IOWA TYPE CURVES

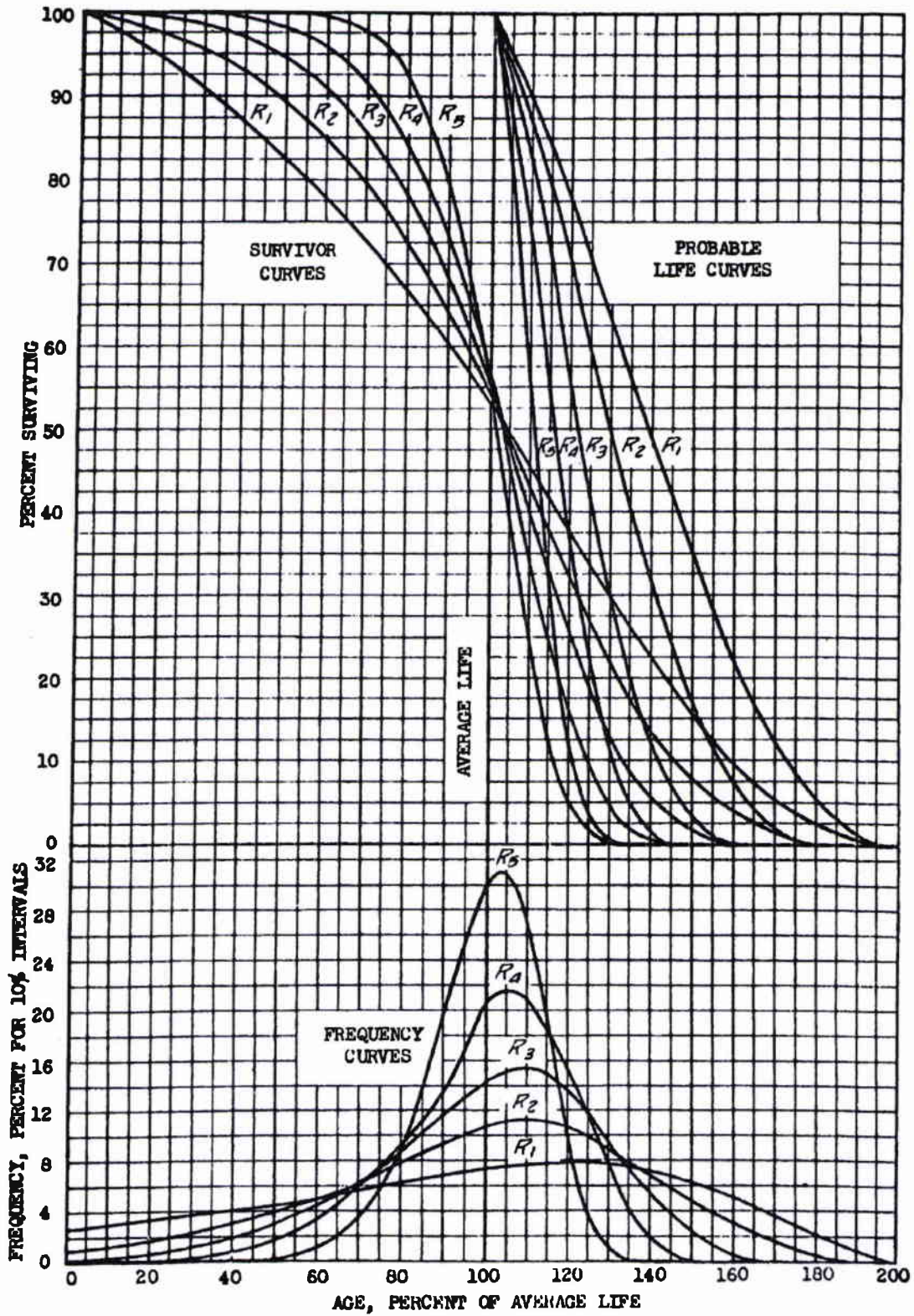


CHART NO. 8

SURVIVOR, PROBABLE LIFE AND FREQUENCY CURVES
FOR THE SYMMETRICAL IOWA TYPE CURVES

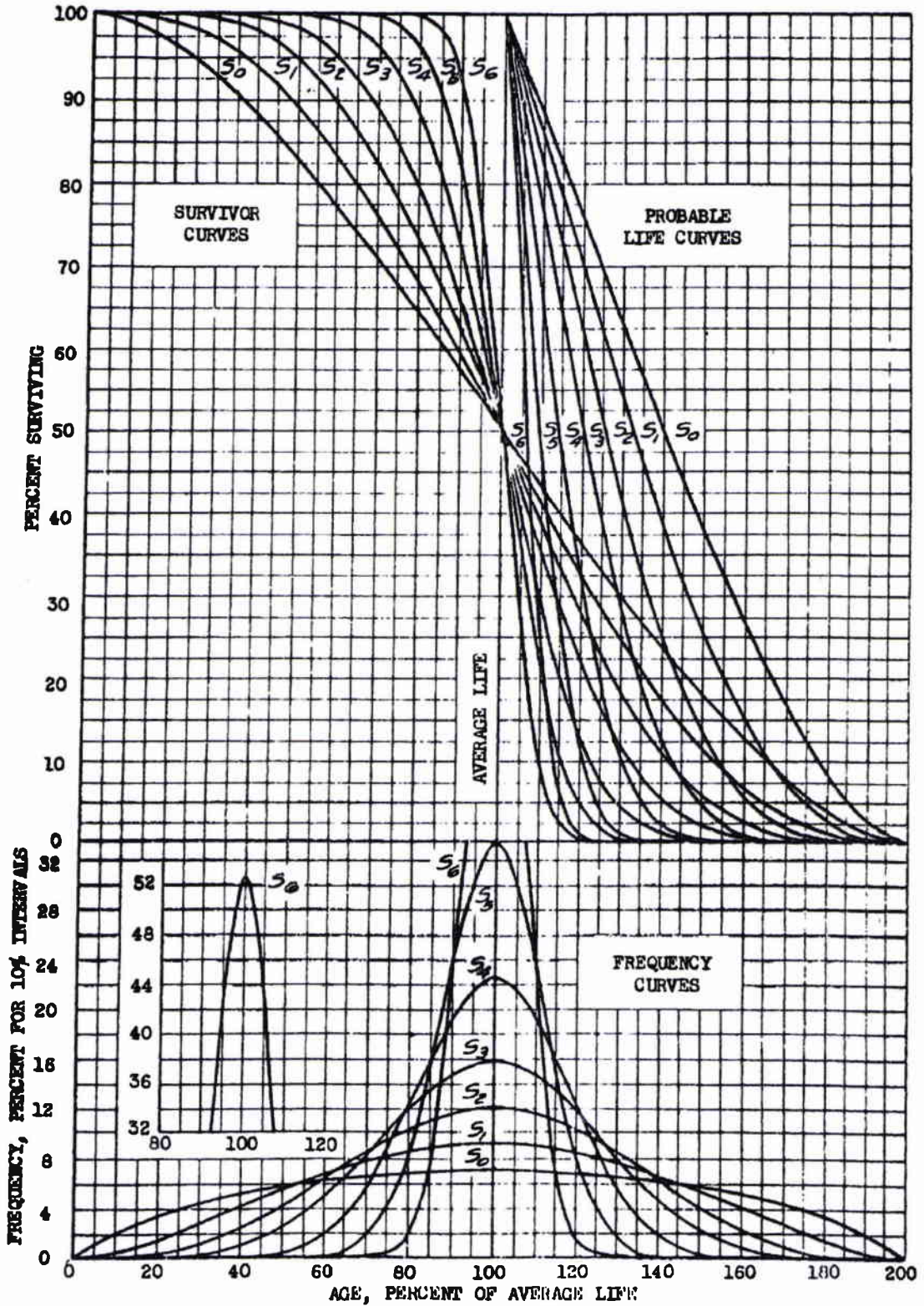
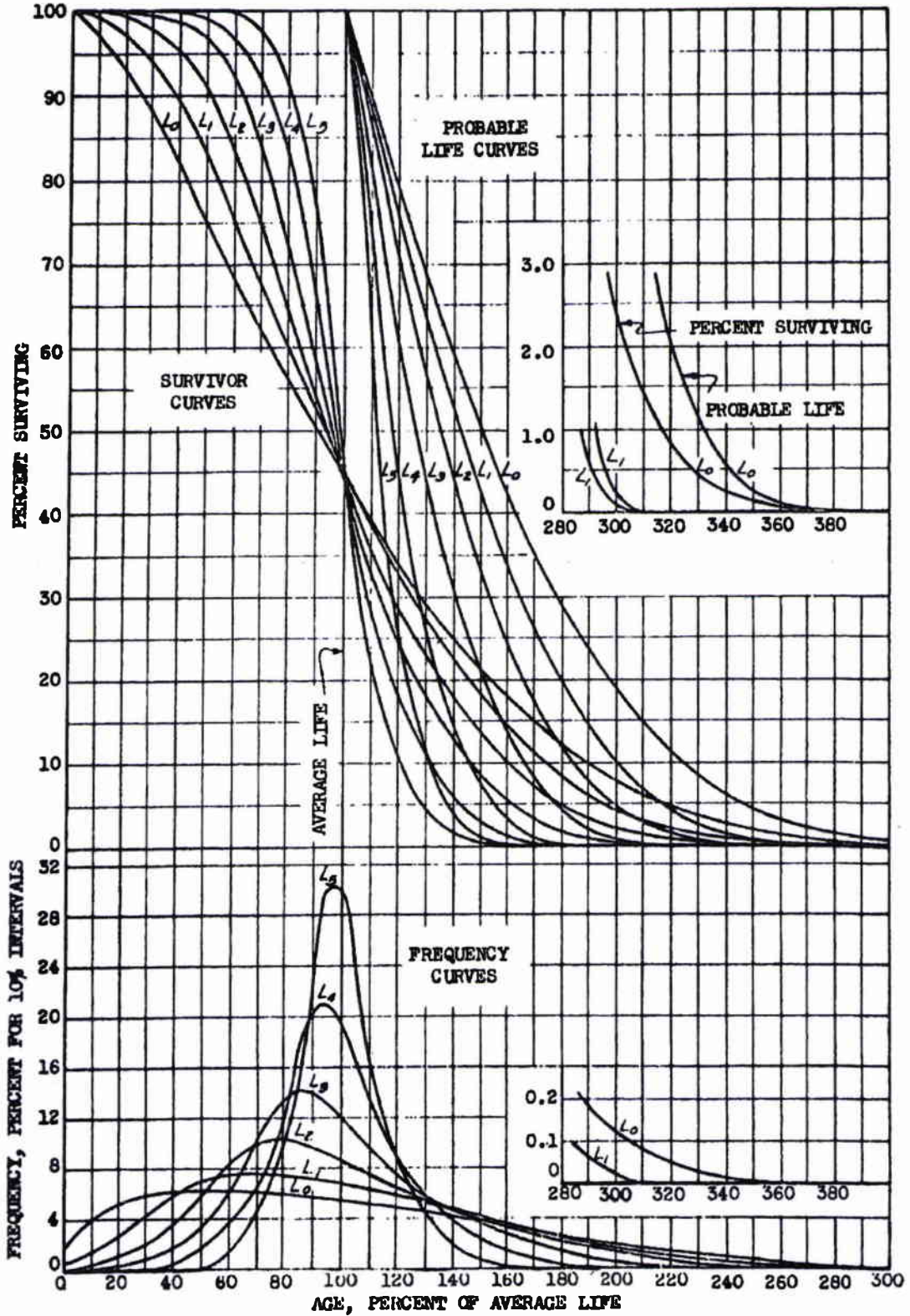
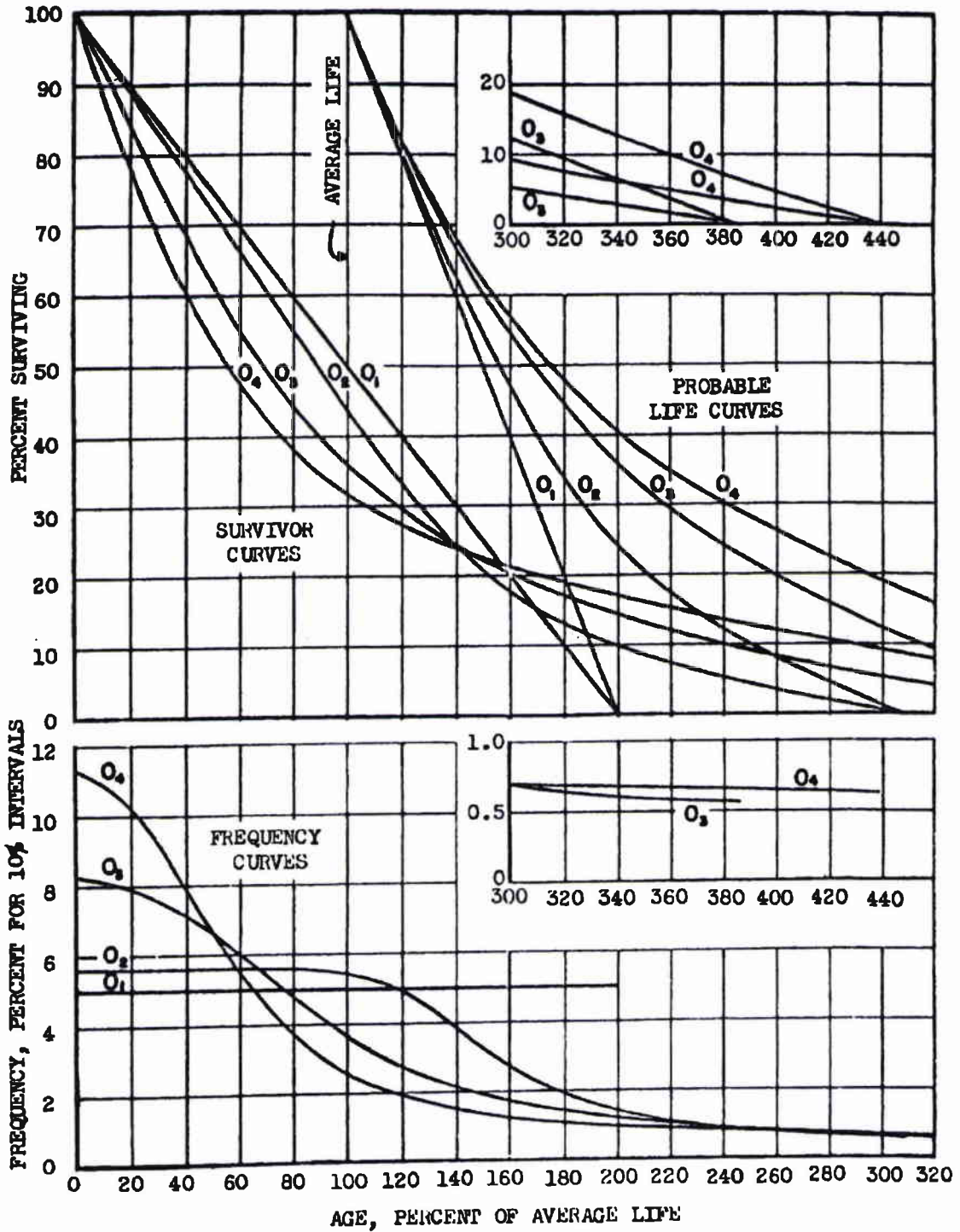


CHART NO. 7

SURVIVOR, PROBABLE LIFE AND FREQUENCY CURVES
FOR THE LEFT-MODAL IOWA TYPE CURVES



SURVIVOR, PROBABLE LIFE AND FREQUENCY CURVES
FOR THE ORIGIN-MODAL TYPE CURVES



Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.0000	R2.0	0	0.0948315	100.0000000	100.0000000	0.0000000
R2.0001	R2.0	1	0.0981018	99.9051685	99.0944462	0.9055538
R2.0002	R2.0	2	0.1014623	99.8070669	98.1913567	1.8086433
R2.0003	R2.0	3	0.1049099	99.7056046	97.2907686	2.7092314
R2.0004	R2.0	4	0.1084509	99.6006947	96.3927202	3.6072798
R2.0005	R2.0	5	0.1120825	99.4922438	95.4972458	4.5027542
R2.0006	R2.0	6	0.1158104	99.3801613	94.6043863	5.3956137
R2.0007	R2.0	7	0.1196318	99.2643509	93.7141762	6.2858238
R2.0008	R2.0	8	0.1235532	99.1447191	92.8266525	7.1733475
R2.0009	R2.0	9	0.1275731	99.0211659	91.9418528	8.0581474
R2.0010	R2.0	10	0.1316938	98.8935928	91.0598126	8.9401874
R2.0011	R2.0	11	0.1359167	98.7618990	90.1805687	9.8194313
R2.0012	R2.0	12	0.1402454	98.6259823	89.3041592	10.6958408
R2.0013	R2.0	13	0.1446791	98.4857369	88.4306173	11.5693827
R2.0014	R2.0	14	0.1492214	98.3410578	87.5599813	12.4400187
R2.0015	R2.0	15	0.1538735	98.1918364	86.6922846	13.3077154
R2.0016	R2.0	16	0.1586370	98.0379629	85.8275662	14.1724338
R2.0017	R2.0	17	0.1635142	97.8793259	84.9658604	15.0341396
R2.0018	R2.0	18	0.1685056	97.7158117	84.1072016	15.8927984
R2.0019	R2.0	19	0.1736164	97.5473061	83.2516279	16.7483721
R2.0020	R2.0	20	0.1788426	97.3736897	82.3991718	17.6008282
R2.0021	R2.0	21	0.1841926	97.1948471	81.5498714	18.4501286
R2.0022	R2.0	22	0.1896649	97.0108545	80.7037592	19.2962408
R2.0023	R2.0	23	0.1952619	96.8209896	79.8608723	20.1391277
R2.0024	R2.0	24	0.2009860	96.6257277	79.0212450	20.9787550
R2.0025	R2.0	25	0.2068376	96.4247417	78.1849127	21.8150873
R2.0026	R2.0	26	0.2128210	96.2179041	77.3519096	22.6480904
R2.0027	R2.0	27	0.2189369	96.0050831	76.5222740	23.4777280
R2.0028	R2.0	28	0.2251892	95.7881462	75.6960373	24.3039627
R2.0029	R2.0	29	0.2315760	95.5609570	74.8732357	25.1267643
R2.0030	R2.0	30	0.2381039	95.3293810	74.0539045	25.9460955
R2.0031	R2.0	31	0.2447710	95.0912771	73.2380800	26.7619200
R2.0032	R2.0	32	0.2515831	94.8465061	72.4257956	27.5742044
R2.0033	R2.0	33	0.2585392	94.5949230	71.6170883	28.3829117
R2.0034	R2.0	34	0.2656450	94.3383638	70.8119927	29.1880073
R2.0035	R2.0	35	0.2728977	94.0707388	70.0105457	29.9894543
R2.0036	R2.0	36	0.2803049	93.7978411	69.2127819	30.7872181
R2.0037	R2.0	37	0.2878657	93.5175362	68.4187384	31.5812616
R2.0038	R2.0	38	0.2955808	93.2296705	67.6284504	32.3715498
R2.0039	R2.0	39	0.3034544	92.9340897	66.8419552	33.1580448
R2.0040	R2.0	40	0.3114920	92.6306353	66.0592899	33.9407101
R2.0041	R2.0	41	0.3196878	92.3191433	65.2808571	34.7191429
R2.0042	R2.0	42	0.3280507	91.9994555	64.5055971	35.4944029
R2.0043	R2.0	43	0.3365783	91.6714048	63.7346439	36.2653561
R2.0044	R2.0	44	0.3452769	91.3348265	62.9676700	37.0323300

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.0045	R2.0	45	0.3541450	90.9895496	62.2047148	37.7952852
R2.0046	R2.0	46	0.3631840	90.8354046	61.4458170	38.5541830
R2.0047	R2.0	47	0.3723984	90.2722208	60.8910148	39.3089852
R2.0048	R2.0	48	0.3817892	89.8998222	59.9403491	40.0596509
R2.0049	R2.0	49	0.3913574	89.5180330	59.1938582	40.8061418
R2.0050	R2.0	50	0.4011030	89.1266756	58.4515839	41.5484161
R2.0051	R2.0	51	0.4110289	88.7255726	57.7135668	42.2864332
R2.0052	R2.0	52	0.4211388	88.3145437	56.9798470	43.0201530
R2.0053	R2.0	53	0.4314281	87.8934069	56.2504678	43.7495322
R2.0054	R2.0	54	0.4419002	87.4619808	55.5254688	44.4745312
R2.0055	R2.0	55	0.4525547	87.0200806	54.8048959	45.1951041
R2.0056	R2.0	56	0.4633961	86.5875259	54.0887899	45.9112101
R2.0057	R2.0	57	0.4744196	86.1041298	53.3771148	46.6228852
R2.0058	R2.0	58	0.4856272	85.6297102	52.6701531	47.3298469
R2.0059	R2.0	59	0.4970178	85.1440830	51.9877110	48.0322890
R2.0060	R2.0	60	0.5085907	84.6470852	51.2899108	48.7300892
R2.0061	R2.0	61	0.5203457	84.1384745	50.5787999	49.4232001
R2.0062	R2.0	62	0.5322781	83.6181288	49.8884211	50.1115789
R2.0063	R2.0	63	0.5443678	83.0858507	49.2042208	50.7957792
R2.0064	R2.0	64	0.5566711	82.5414629	48.5280449	51.4739551
R2.0065	R2.0	65	0.5691252	81.9847918	47.8521390	52.1478610
R2.0066	R2.0	66	0.5817490	81.4156866	47.1831479	52.8168521
R2.0067	R2.0	67	0.5945339	80.8339178	46.5191188	53.4808812
R2.0068	R2.0	68	0.6074762	80.2393837	45.8600979	54.1399021
R2.0069	R2.0	69	0.6205731	79.6319075	45.2081300	54.7938700
R2.0070	R2.0	70	0.6338167	79.0113344	44.5572619	55.4427381
R2.0071	R2.0	71	0.6471968	78.3775177	43.9135399	56.0864601
R2.0072	R2.0	72	0.6607103	77.7303209	43.2750101	56.7249899
R2.0073	R2.0	73	0.6743489	77.0898108	42.6417151	57.3582849
R2.0074	R2.0	74	0.6880913	76.3952637	42.0137038	57.9862962
R2.0075	R2.0	75	0.7019453	75.7071724	41.3910160	58.6089840
R2.0076	R2.0	76	0.7158861	75.0052271	40.7738988	59.2263012
R2.0077	R2.0	77	0.7299071	74.2893410	40.1617951	59.8382049
R2.0078	R2.0	78	0.7439918	73.5594339	39.5553480	60.4446540
R2.0079	R2.0	79	0.7581263	72.8154421	38.9543939	61.0458061
R2.0080	R2.0	80	0.7722978	72.0573158	38.3589792	61.6410208
R2.0081	R2.0	81	0.7864914	71.2850180	37.7691412	62.2308588
R2.0082	R2.0	82	0.8006802	70.4985266	37.1849198	62.8150802
R2.0083	R2.0	83	0.8148537	69.6978464	36.6063528	63.3936472
R2.0084	R2.0	84	0.8289880	68.8829927	36.0334740	63.9665260
R2.0085	R2.0	85	0.8430577	68.0540047	35.4663181	64.5336819
R2.0086	R2.0	86	0.8570489	67.2109470	34.9049188	65.0950832
R2.0087	R2.0	87	0.8709355	66.3538981	34.3493028	65.6506972
R2.0088	R2.0	88	0.8846855	65.4829626	33.7995038	66.2004962
R2.0089	R2.0	89	0.8982801	64.5982771	33.2555461	66.7444539

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.0090	R2.0	90	0.9116889	63.6999970	32.7174568	67.2825432
R2.0091	R2.0	91	0.9246881	62.7883081	32.1852560	67.8147440
R2.0092	R2.0	92	0.9378390	61.8634200	31.6589661	68.3410339
R2.0093	R2.0	93	0.9505158	60.9255810	31.1388020	68.8613980
R2.0094	R2.0	94	0.9628930	59.9750852	30.6241779	69.3758221
R2.0095	R2.0	95	0.9749274	59.0121722	30.1157100	69.8842900
R2.0096	R2.0	96	0.9865956	58.0372448	29.6132040	70.3867960
R2.0097	R2.0	97	0.9978571	57.0506492	29.1186880	70.8833320
R2.0098	R2.0	98	1.0086742	56.0527921	28.6261051	71.3738949
R2.0099	R2.0	99	1.0190200	55.0441179	28.1415110	71.8564890
R2.0100	R2.0	100	1.0288558	54.0250979	27.6628840	72.3371160
R2.0101	R2.0	101	1.0381442	52.9982421	27.1902180	72.8097820
R2.0102	R2.0	102	1.0468449	51.9580979	26.7234991	73.2765009
R2.0103	R2.0	103	1.0549312	50.9112530	26.2627111	73.7372889
R2.0104	R2.0	104	1.0623607	49.8563218	25.8078351	74.1921649
R2.0105	R2.0	105	1.0691033	48.7939811	25.3588469	74.6411531
R2.0106	R2.0	106	1.0751200	47.7248578	24.9157200	75.0842800
R2.0107	R2.0	107	1.0803718	46.6497378	24.4784200	75.5215800
R2.0108	R2.0	108	1.0848422	45.5693680	24.0489079	75.9530821
R2.0109	R2.0	109	1.0884819	44.4845238	23.6211450	76.3788550
R2.0110	R2.0	110	1.0912700	43.3980419	23.2010810	76.7989190
R2.0111	R2.0	111	1.0931897	42.3047719	22.7866659	77.2133341
R2.0112	R2.0	112	1.0941701	41.2118022	22.3778369	77.6221631
R2.0113	R2.0	113	1.0942240	40.1174321	21.9745369	78.0254631
R2.0114	R2.0	114	1.0933342	39.0232081	21.5768909	78.4233091
R2.0115	R2.0	115	1.0914821	37.9298739	21.1842289	78.8157711
R2.0116	R2.0	116	1.0885978	36.8384118	20.7970891	79.2029309
R2.0117	R2.0	117	1.0847301	35.7498140	20.4151239	79.5848761
R2.0118	R2.0	118	1.0798369	34.6650839	20.0383019	79.9616981
R2.0119	R2.0	119	1.0739369	33.5852470	19.6665001	80.3334999
R2.0120	R2.0	120	1.0689980	32.5113101	19.2998221	80.7003779
R2.0121	R2.0	121	1.0590372	31.4443121	18.9375479	81.0624521
R2.0122	R2.0	122	1.0501070	30.3852749	18.5801630	81.4198370
R2.0123	R2.0	123	1.0408660	29.3351679	18.2273769	81.7726231
R2.0124	R2.0	124	1.0290709	28.2951019	17.8789959	82.1210041
R2.0125	R2.0	125	1.0170991	27.2680310	17.5349121	82.4650879
R2.0126	R2.0	126	1.0041568	26.2489319	17.1949849	82.8050151
R2.0127	R2.0	127	0.9902881	25.2447751	16.8590529	83.1409471
R2.0128	R2.0	128	0.9755079	24.2544870	16.5269830	83.4730170
R2.0129	R2.0	129	0.9598532	23.2789791	16.1985951	83.8014049
R2.0130	R2.0	130	0.9433670	22.3191259	15.8737270	84.1262730
R2.0131	R2.0	131	0.9260879	21.3757589	15.5522090	84.4477910
R2.0132	R2.0	132	0.9080550	20.4498710	15.2338660	84.7661340
R2.0133	R2.0	133	0.8893190	19.5418160	14.9185150	85.0814850
R2.0134	R2.0	134	0.8699369	18.6522970	14.6059730	85.3940270

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.0135	R2.0	135	0.8499541	17.7823801	14.2960570	85.7039430
R2.0136	R2.0	136	0.8294290	16.9324080	13.9885750	86.0114250
R2.0137	R2.0	137	0.8084200	16.1029770	13.6833420	86.3166580
R2.0138	R2.0	138	0.7869870	15.2945570	13.3801709	86.6198291
R2.0139	R2.0	139	0.7651829	14.5075700	13.0788760	86.9211240
R2.0140	R2.0	140	0.7430881	13.7423871	12.7792740	87.2207260
R2.0141	R2.0	141	0.7207081	12.9993190	12.4811831	87.5188169
R2.0142	R2.0	142	0.6981599	12.2786109	12.1844341	87.8155659
R2.0143	R2.0	143	0.6754730	11.5804510	11.8888620	88.1111380
R2.0144	R2.0	144	0.6527110	10.9049780	11.5943070	88.4056930
R2.0145	R2.0	145	0.6299220	10.2522870	11.3006270	88.6993730
R2.0146	R2.0	146	0.6071579	9.6223450	11.0076849	88.9923151
R2.0147	R2.0	147	0.5844650	9.0151870	10.7153600	89.2846400
R2.0148	R2.0	148	0.5618890	8.4307220	10.4235460	89.5764540
R2.0149	R2.0	149	0.5394630	7.8688330	10.1321580	89.8678440
R2.0150	R2.0	150	0.5172310	7.3293700	9.8411110	90.1588891
R2.0151	R2.0	151	0.4952170	6.8121390	9.5503610	90.4496390
R2.0152	R2.0	152	0.4734520	6.3189220	9.2598670	90.7401331
R2.0153	R2.0	153	0.4519570	5.8434700	8.9698111	91.0303890
R2.0154	R2.0	154	0.4307510	5.3915130	8.6795980	91.3204020
R2.0155	R2.0	155	0.4098480	4.9607620	8.3898480	91.6101540
R2.0156	R2.0	156	0.3892590	4.5509140	8.1003940	91.8998060
R2.0157	R2.0	157	0.3689940	4.1616550	7.8112940	92.1887060
R2.0158	R2.0	158	0.3490550	3.7926610	7.5226200	92.4773800
R2.0159	R2.0	159	0.3294490	3.4438060	7.2344580	92.7655420
R2.0160	R2.0	160	0.3101780	3.1141570	6.9468990	93.0531010
R2.0161	R2.0	161	0.2912410	2.8039790	6.6600590	93.3399410
R2.0162	R2.0	162	0.2726440	2.5127380	6.3740480	93.6259540
R2.0163	R2.0	163	0.2543900	2.2400940	6.0889820	93.9110180
R2.0164	R2.0	164	0.2364840	1.9857040	5.8049920	94.1950080
R2.0165	R2.0	165	0.2189350	1.7492200	5.5221940	94.4778060
R2.0166	R2.0	166	0.2017570	1.5302850	5.2407130	94.7592870
R2.0167	R2.0	167	0.1849660	1.3285280	4.9606590	95.0393410
R2.0168	R2.0	168	0.1685830	1.1435620	4.6821490	95.3178510
R2.0169	R2.0	169	0.1526310	0.9749790	4.4052860	95.5947140
R2.0170	R2.0	170	0.1371620	0.8223480	4.1301220	95.8698780
R2.0171	R2.0	171	0.1221950	0.6851860	3.8568020	96.1431980
R2.0172	R2.0	172	0.1077630	0.5629910	3.5853840	96.4146160
R2.0173	R2.0	173	0.0939780	0.4552080	3.3159460	96.6840540
R2.0174	R2.0	174	0.0808330	0.3612300	3.0485230	96.9514770
R2.0175	R2.0	175	0.0684150	0.2803970	2.7832120	97.2167880
R2.0176	R2.0	176	0.0567860	0.2119820	2.5201260	97.4798740
R2.0177	R2.0	177	0.0460210	0.1551960	2.2592980	97.7407020
R2.0178	R2.0	178	0.0361913	0.1091750	2.0008840	97.9991160
R2.0179	R2.0	179	0.0273739	0.0729837	1.7451020	98.2548980

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.5000	R2.5	0	0.0551548	100.0000000	100.0000000	0.0000000
R2.5001	R2.5	1	0.0574713	99.9448452	99.0549097	0.9450903
R2.5002	R2.5	2	0.0598783	99.8873739	98.1116142	1.8883858
R2.5003	R2.5	3	0.0623808	99.8274956	97.1701632	2.8298368
R2.5004	R2.5	4	0.0649805	99.7651148	96.2306089	3.7693911
R2.5005	R2.5	5	0.0676823	99.7001343	95.2930031	4.7069969
R2.5006	R2.5	6	0.0704880	99.6324520	94.3573971	5.6426029
R2.5007	R2.5	7	0.0734014	99.5619640	93.4238472	6.5761528
R2.5008	R2.5	8	0.0764256	99.4885626	92.4924040	7.5075960
R2.5009	R2.5	9	0.0795669	99.4121370	91.5631256	8.4368744
R2.5010	R2.5	10	0.0828257	99.3325701	90.6360693	9.3639307
R2.5011	R2.5	11	0.0862064	99.2497444	89.7112904	10.2887096
R2.5012	R2.5	12	0.0897122	99.1635380	88.7888441	11.2111559
R2.5013	R2.5	13	0.0933485	99.0738258	87.8687897	12.1312103
R2.5014	R2.5	14	0.0971183	98.9804773	86.9511881	13.0488119
R2.5015	R2.5	15	0.1010247	98.8833590	86.0360956	13.9639044
R2.5016	R2.5	16	0.1050710	98.7823343	85.1235743	14.8764257
R2.5017	R2.5	17	0.1092635	98.6772633	84.2136803	15.7863197
R2.5018	R2.5	18	0.1136026	98.5679998	83.3064766	16.6935234
R2.5019	R2.5	19	0.1180954	98.4543972	82.4020252	17.5979748
R2.5020	R2.5	20	0.1227426	98.3363018	81.5003834	18.4996166
R2.5021	R2.5	21	0.1275521	98.2135592	80.6016140	19.3983860
R2.5022	R2.5	22	0.1325226	98.0860071	79.7057791	20.2942209
R2.5023	R2.5	23	0.1376619	97.9534845	78.8129368	21.1870632
R2.5024	R2.5	24	0.1429729	97.8158226	77.9231520	22.0768480
R2.5025	R2.5	25	0.1484576	97.6728497	77.0364828	22.9635172
R2.5026	R2.5	26	0.1541233	97.5243921	76.1529923	23.8470077
R2.5027	R2.5	27	0.1599703	97.3702688	75.2727404	24.7272596
R2.5028	R2.5	28	0.1660032	97.2102985	74.3957863	25.6042137
R2.5029	R2.5	29	0.1722278	97.0442953	73.5221920	26.4778080
R2.5030	R2.5	30	0.1786452	96.8720675	72.6520176	27.3479824
R2.5031	R2.5	31	0.1852608	96.6934223	71.7853222	28.2146778
R2.5032	R2.5	32	0.1920747	96.5081615	70.9221630	29.0778370
R2.5033	R2.5	33	0.1990958	96.3160868	70.0626001	29.9373999
R2.5034	R2.5	34	0.2063245	96.1169910	69.2066917	30.7933083
R2.5035	R2.5	35	0.2137642	95.9106665	68.3544951	31.6455049
R2.5036	R2.5	36	0.2214194	95.6969023	67.5060663	32.4939337
R2.5037	R2.5	37	0.2292928	95.4754829	66.6614609	33.3385391
R2.5038	R2.5	38	0.2373877	95.2461901	65.8207359	34.1792641
R2.5039	R2.5	39	0.2457084	95.0088024	64.9839459	35.0160541
R2.5040	R2.5	40	0.2542592	94.7630940	64.1511440	35.8488560
R2.5041	R2.5	41	0.2630376	94.5088348	63.3223858	36.6776142
R2.5042	R2.5	42	0.2720566	94.2457972	62.4977222	37.5022778
R2.5043	R2.5	43	0.2813111	93.9737406	61.6772060	38.3227940
R2.5044	R2.5	44	0.2908077	93.6924295	60.8608909	39.1391091

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.5045	R2.5	45	0.3005543	93.4016218	60.0488248	39.9511752
R2.5046	R2.5	46	0.3105459	93.1010675	59.2410641	40.7589359
R2.5047	R2.5	47	0.3207922	92.7905216	58.4376559	41.5623441
R2.5048	R2.5	48	0.3312959	92.4697294	57.6386509	42.3613491
R2.5049	R2.5	49	0.3420601	92.1384335	56.8441010	43.1558990
R2.5050	R2.5	50	0.3530903	91.7963734	56.0540552	43.9459448
R2.5051	R2.5	51	0.3643885	91.4432831	55.2685661	44.7314339
R2.5052	R2.5	52	0.3759584	91.0788946	54.4876838	45.5123162
R2.5053	R2.5	53	0.3878079	90.7029362	53.7114601	46.2885399
R2.5054	R2.5	54	0.3999405	90.3151283	52.9399471	47.0600529
R2.5055	R2.5	55	0.4123592	89.9151878	52.1731982	47.8268018
R2.5056	R2.5	56	0.4250708	89.5028286	51.4112682	48.5887318
R2.5057	R2.5	57	0.4380798	89.0777578	50.6542120	49.3457880
R2.5058	R2.5	58	0.4513912	88.6396780	49.9020872	50.0979128
R2.5059	R2.5	59	0.4650126	88.1882868	49.1549511	50.8450489
R2.5060	R2.5	60	0.4789476	87.7232742	48.4128661	51.5871339
R2.5061	R2.5	61	0.4932022	87.2443266	47.6758952	52.3241048
R2.5062	R2.5	62	0.5077830	86.7511244	46.9441018	53.0558982
R2.5063	R2.5	63	0.5226945	86.2433414	46.2175550	53.7824450
R2.5064	R2.5	64	0.5379439	85.7206469	45.4963250	54.5036750
R2.5065	R2.5	65	0.5535354	85.1827030	44.7804852	55.2195148
R2.5066	R2.5	66	0.5694743	84.6291676	44.0701108	55.9298892
R2.5067	R2.5	67	0.5857687	84.0596933	43.3652830	56.6347170
R2.5068	R2.5	68	0.6024160	83.4739246	42.6660848	57.3339152
R2.5069	R2.5	69	0.6194267	82.8715086	41.9726019	58.0273981
R2.5070	R2.5	70	0.6368008	82.2520819	41.2849250	58.7150750
R2.5071	R2.5	71	0.6545391	81.6152811	40.6031480	59.3968520
R2.5072	R2.5	72	0.6726418	80.9607420	39.9273682	60.0726318
R2.5073	R2.5	73	0.6911087	80.2881002	39.2576852	60.7423148
R2.5074	R2.5	74	0.7099390	79.5969915	38.5942020	61.4057980
R2.5075	R2.5	75	0.7291259	78.8870525	37.9370279	62.0629721
R2.5076	R2.5	76	0.7486620	78.1579266	37.2862740	62.7137260
R2.5077	R2.5	77	0.7685376	77.4092646	36.6420512	63.3579488
R2.5078	R2.5	78	0.7887430	76.6407270	36.0044770	63.9955230
R2.5079	R2.5	79	0.8092565	75.8519840	35.3736682	64.6263318
R2.5080	R2.5	80	0.8300667	75.0427275	34.7497439	65.2502561
R2.5081	R2.5	81	0.8511477	74.2126608	34.1328259	65.8671741
R2.5082	R2.5	82	0.8724718	73.3615131	33.5230379	66.4769621
R2.5083	R2.5	83	0.8940096	72.4890413	32.9204998	67.0795002
R2.5084	R2.5	84	0.9157238	71.5950317	32.3253360	67.6746640
R2.5085	R2.5	85	0.9375753	70.6793079	31.7376659	68.2623341
R2.5086	R2.5	86	0.9595194	69.7417326	31.1576109	68.8423891
R2.5087	R2.5	87	0.9815073	68.7822132	30.5852881	69.4147119
R2.5088	R2.5	88	1.0034790	67.8007059	30.0208130	69.9791870
R2.5089	R2.5	89	1.0253773	66.7972269	29.4642980	70.5357020

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Iowa Survivor Curves

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.5090	R2.5	90	1.0471344	65.7718496	28.9158480	71.0841520
R2.5091	R2.5	91	1.0686831	64.7247152	28.3755679	71.6244321
R2.5092	R2.5	92	1.0899420	63.6560321	27.8435540	72.1564460
R2.5093	R2.5	93	1.1108289	62.5660901	27.3198969	72.6801031
R2.5094	R2.5	94	1.1312651	61.4552612	26.8046770	73.1953230
R2.5095	R2.5	95	1.1511522	60.3239961	26.2979729	73.7020271
R2.5096	R2.5	96	1.1704039	59.1728439	25.7998481	74.2001519
R2.5097	R2.5	97	1.1889191	58.0024400	25.3103621	74.6896379
R2.5098	R2.5	98	1.2065949	56.8135209	24.8295610	75.1704390
R2.5099	R2.5	99	1.2233358	55.6069260	24.3574791	75.6425209
R2.5100	R2.5	100	1.2390403	54.3835902	23.8941431	76.1058569
R2.5101	R2.5	101	1.2536021	53.1445499	23.4395671	76.5604329
R2.5102	R2.5	102	1.2669158	51.8909478	22.9937501	77.0062499
R2.5103	R2.5	103	1.2788939	50.6240320	22.5566781	77.4433219
R2.5104	R2.5	104	1.2894273	49.3451381	22.1283281	77.8716719
R2.5105	R2.5	105	1.2984328	48.0557108	21.7086580	78.2913420
R2.5106	R2.5	106	1.3058210	46.7572780	21.2976141	78.7023859
R2.5107	R2.5	107	1.3115058	45.4514570	20.8951299	79.1048701
R2.5108	R2.5	108	1.3154220	44.1399512	20.5011189	79.4988811
R2.5109	R2.5	109	1.3175020	42.8245292	20.1154850	79.8845150
R2.5110	R2.5	110	1.3176890	41.5070272	19.7381129	80.2618871
R2.5111	R2.5	111	1.3159404	40.1893382	19.3688741	80.6311259
R2.5112	R2.5	112	1.3122248	38.8733978	19.0076220	80.9923780
R2.5113	R2.5	113	1.3065191	37.5611730	18.6541979	81.3458021
R2.5114	R2.5	114	1.2988228	36.2546539	18.3084259	81.6915741
R2.5115	R2.5	115	1.2891360	34.9558311	17.9701180	82.0298820
R2.5116	R2.5	116	1.2774830	33.6666951	17.6390679	82.3609321
R2.5117	R2.5	117	1.2638931	32.3892121	17.3150611	82.6849389
R2.5118	R2.5	118	1.2484150	31.1253190	16.9978631	83.0021369
R2.5119	R2.5	119	1.2311139	29.8769040	16.6872311	83.3127689
R2.5120	R2.5	120	1.2120590	28.6457901	16.3829119	83.6170881
R2.5121	R2.5	121	1.1913381	27.4337311	16.0846400	83.9153600
R2.5122	R2.5	122	1.1690731	26.2423930	15.7921439	84.2078561
R2.5123	R2.5	123	1.1452968	25.0733199	15.5051580	84.4948420
R2.5124	R2.5	124	1.1201971	23.9280231	15.2233681	84.7766319
R2.5125	R2.5	125	1.0938761	22.8078260	14.9465010	85.0534990
R2.5126	R2.5	126	1.0664589	21.7139499	14.6742671	85.3257329
R2.5127	R2.5	127	1.0380819	20.6474910	14.4063790	85.5936210
R2.5128	R2.5	128	1.0088780	19.6094091	14.1425540	85.8574460
R2.5129	R2.5	129	0.9789822	18.6005311	13.8825150	86.1174850
R2.5130	R2.5	130	0.9485328	17.6215489	13.6259940	86.3740060
R2.5131	R2.5	131	0.9176611	16.6730161	13.3727360	86.6272640
R2.5132	R2.5	132	0.8864870	15.7553550	13.1224999	86.8775001
R2.5133	R2.5	133	0.8551400	14.8688680	12.8750581	87.1249419
R2.5134	R2.5	134	0.8237340	14.0137280	12.6302040	87.3697960

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Iowa Survivor Curves

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.5135	R2.5	135	0.7923711	13.1899940	12.3877521	87.6122479
R2.5136	R2.5	136	0.7611500	12.3976229	12.1475360	87.8524640
R2.5137	R2.5	137	0.7301579	11.6364729	11.9094091	88.0905909
R2.5138	R2.5	138	0.6994760	10.9063150	11.6732490	88.3267510
R2.5139	R2.5	139	0.6691670	10.2068390	11.4389530	88.5610470
R2.5140	R2.5	140	0.6392890	9.5376720	11.2064340	88.7935660
R2.5141	R2.5	141	0.6098980	8.8983830	10.9756200	89.0243800
R2.5142	R2.5	142	0.5810320	8.2884851	10.7464550	89.2535450
R2.5143	R2.5	143	0.5527210	7.7074530	10.5188921	89.4811079
R2.5144	R2.5	144	0.5249980	7.1547320	10.2928760	89.7071240
R2.5145	R2.5	145	0.4978830	6.6297340	10.0683579	89.9316421
R2.5146	R2.5	146	0.4713970	6.1318510	9.8452730	90.1547270
R2.5147	R2.5	147	0.4455530	5.6604540	9.6235380	90.3764620
R2.5148	R2.5	148	0.4203759	5.2149010	9.4030380	90.5969620
R2.5149	R2.5	149	0.3958700	4.7945250	9.1836420	90.8163580
R2.5150	R2.5	150	0.3720580	4.3986550	8.9651520	91.0348480
R2.5151	R2.5	151	0.3489550	4.0265970	8.7473331	91.2526670
R2.5152	R2.5	152	0.3265810	3.6776420	8.5298860	91.4701140
R2.5153	R2.5	153	0.3049580	3.3510610	8.3124470	91.6875531
R2.5154	R2.5	154	0.2841100	3.0461030	8.0945830	91.9054170
R2.5155	R2.5	155	0.2640620	2.7619930	7.8757930	92.1242070
R2.5156	R2.5	156	0.2448380	2.4979310	7.6555050	92.3444950
R2.5157	R2.5	157	0.2264680	2.2530930	7.4330760	92.5669240
R2.5158	R2.5	158	0.2089740	2.0266250	7.2078220	92.7921780
R2.5159	R2.5	159	0.1923820	1.8176510	6.9790150	93.0209850
R2.5160	R2.5	160	0.1767130	1.6252690	6.7459320	93.2540680
R2.5161	R2.5	161	0.1619790	1.4485560	6.5078890	93.4921110
R2.5162	R2.5	162	0.1481900	1.2865770	6.2642780	93.7357220
R2.5163	R2.5	163	0.1353470	1.1383870	6.0146450	93.9853550
R2.5164	R2.5	164	0.1234370	1.0030400	5.7587730	94.2412270
R2.5165	R2.5	165	0.1124400	0.8796030	5.4967510	94.5032490
R2.5166	R2.5	166	0.1023100	0.7671630	5.2291050	94.7708950
R2.5167	R2.5	167	0.0929890	0.6648530	4.9568360	95.0431640
R2.5168	R2.5	168	0.0843740	0.5718640	4.6815480	95.3184520
R2.5169	R2.5	169	0.0763160	0.4874900	4.4052840	95.5947160
R2.5170	R2.5	170	0.0685810	0.4111740	4.1301250	95.8698750
R2.5171	R2.5	171	0.0610970	0.3425930	3.8568110	96.1431890
R2.5172	R2.5	172	0.0538920	0.2814960	3.5853870	96.4146130
R2.5173	R2.5	173	0.0469890	0.2276040	3.3159430	96.6840570
R2.5174	R2.5	174	0.0404160	0.1806150	3.0485420	96.9514580
R2.5175	R2.5	175	0.0342080	0.1401990	2.7832260	97.2167740
R2.5176	R2.5	176	0.0283930	0.1059910	2.5201240	97.4798760
R2.5177	R2.5	177	0.0230100	0.0775980	2.2592850	97.7407150
R2.5178	R2.5	178	0.0181160	0.0545880	2.0008610	97.9991390
R2.5179	R2.5	179	0.0136670	0.0364720	1.7451220	98.2548780

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Iowa Survivor Curves

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R2.5180	R2.5	180	0.0098240	0.0228050	1.4924140	98.5075860
R2.5181	R2.5	181	0.0065460	0.0129810	1.2434710	98.7565290
R2.5182	R2.5	182	0.0038930	0.0064350	0.9997670	99.0002330
R2.5183	R2.5	183	0.0019010	0.0025420	0.7651460	99.2348540
R2.5184	R2.5	184	0.0006080	0.0006410	0.5514820	99.4485180
R2.5185	R2.5	185	0.0000330	0.0000330	0.5000000	99.5000000
R2.5186	R2.5	186	0.0000000	0.0000000	0.0000000	100.0000000

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R3.0000	R3.0	0	0.0154791	100.0000000	100.0000000	0.0000000
R3.0001	R3.0	1	0.0168400	99.9845209	99.0154038	0.9845962
R3.0002	R3.0	2	0.0182953	99.9676809	98.0319996	1.9680004
R3.0003	R3.0	3	0.0198507	99.9493856	97.0498524	2.9501476
R3.0004	R3.0	4	0.0215111	99.9295349	96.0690317	3.9309683
R3.0005	R3.0	5	0.0232811	99.9080238	95.0896082	4.9103918
R3.0006	R3.0	6	0.0251655	99.8847427	94.1116552	5.8863448
R3.0007	R3.0	7	0.0271702	99.8595772	93.1352463	6.8647537
R3.0008	R3.0	8	0.0292997	99.8324070	92.1604576	7.8395424
R3.0009	R3.0	9	0.0315600	99.8031073	91.1873674	8.8126326
R3.0010	R3.0	10	0.0339584	99.7715473	90.2160540	9.7839460
R3.0011	R3.0	11	0.0364952	99.7375868	89.2485992	10.7534008
R3.0012	R3.0	12	0.0391798	99.7010937	88.2790852	11.7209148
R3.0013	R3.0	13	0.0420189	99.6619139	87.3135939	12.6864061
R3.0014	R3.0	14	0.0450144	99.6198950	86.3502102	13.6497898
R3.0015	R3.0	15	0.0481758	99.5748806	85.3890209	14.6109791
R3.0016	R3.0	16	0.0515060	99.5267048	84.4301109	15.5698891
R3.0017	R3.0	17	0.0550118	99.4751988	83.4735680	16.5264320
R3.0018	R3.0	18	0.0586996	99.4201870	82.5194798	17.4805202
R3.0019	R3.0	19	0.0625744	99.3614874	81.5679340	18.4320660
R3.0020	R3.0	20	0.0666428	99.2989130	80.6190205	19.3809795
R3.0021	R3.0	21	0.0709104	99.2322702	79.6728268	20.3271732
R3.0022	R3.0	22	0.0753794	99.1613598	78.7294426	21.2705574
R3.0023	R3.0	23	0.0800638	99.0859804	77.7889568	22.2110434
R3.0024	R3.0	24	0.0849600	99.0059168	76.8514566	23.1485434
R3.0025	R3.0	25	0.0900774	98.9209566	75.9170332	24.0829668
R3.0026	R3.0	26	0.0954256	98.8308792	74.9857712	25.0142288
R3.0027	R3.0	27	0.1010027	98.7354536	74.0577602	25.9422398
R3.0028	R3.0	28	0.1068191	98.6344509	73.1330843	26.8669157
R3.0029	R3.0	29	0.1128788	98.5276318	72.2118292	27.7881708
R3.0030	R3.0	30	0.1191874	98.4147530	71.2940807	28.7059193
R3.0031	R3.0	31	0.1257477	98.2955656	70.3799210	29.6200790
R3.0032	R3.0	32	0.1325683	98.1698179	69.4694319	30.5305681
R3.0033	R3.0	33	0.1396523	98.0372496	68.5626936	31.4373064
R3.0034	R3.0	34	0.1470041	97.8975973	67.6597862	32.3402138
R3.0035	R3.0	35	0.1546307	97.7505932	66.7607861	33.2392139
R3.0036	R3.0	36	0.1625337	97.5959625	65.8657694	34.1342306
R3.0037	R3.0	37	0.1707211	97.4334288	64.9748087	35.0251913
R3.0038	R3.0	38	0.1791944	97.2627077	64.0879793	35.9120207
R3.0039	R3.0	39	0.1879616	97.0835133	63.2053480	36.7946520
R3.0040	R3.0	40	0.1970244	96.8955517	62.3269858	37.6730142
R3.0041	R3.0	41	0.2063894	96.6985273	61.4529600	38.5470400
R3.0042	R3.0	42	0.2160606	96.4921379	60.5833340	39.4166660
R3.0043	R3.0	43	0.2260437	96.2760773	59.7181711	40.2818289
R3.0044	R3.0	44	0.2363405	96.0500336	58.8575339	41.1424661

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R3.0045	R3.0	45	0.2469616	95.8136931	58.0014839	41.9985161
R3.0046	R3.0	46	0.2579089	95.5667315	57.1500778	42.8499222
R3.0047	R3.0	47	0.2691869	95.3088228	56.3033738	43.6966262
R3.0048	R3.0	48	0.2808028	95.0396357	55.4614301	44.5385699
R3.0049	R3.0	49	0.2927637	94.7588329	54.6243000	45.3757000
R3.0050	R3.0	50	0.3050775	94.4660892	53.7920389	46.2079611
R3.0051	R3.0	51	0.3177452	94.1609917	52.9647021	47.0352979
R3.0052	R3.0	52	0.3307829	93.8432465	52.1423440	47.8576560
R3.0053	R3.0	53	0.3441897	93.5124636	51.3250179	48.6749821
R3.0054	R3.0	54	0.3579797	93.1682739	50.5127802	49.4872198
R3.0055	R3.0	55	0.3721629	92.8102942	49.7056861	50.2943139
R3.0056	R3.0	56	0.3867464	92.4381313	48.9037910	51.0962090
R3.0057	R3.0	57	0.4017400	92.0513849	48.1071558	51.8928442
R3.0058	R3.0	58	0.4171553	91.6496449	47.3158379	52.6841621
R3.0059	R3.0	59	0.4330063	91.2324896	46.5299010	53.4700990
R3.0060	R3.0	60	0.4493046	90.7994833	45.7494102	54.2505898
R3.0061	R3.0	61	0.4660597	90.3501787	44.9744310	55.0255690
R3.0062	R3.0	62	0.4832878	89.8841190	44.2050362	55.7949638
R3.0063	R3.0	63	0.5010013	89.4008312	43.4412990	56.5587010
R3.0064	R3.0	64	0.5192156	88.8998299	42.6832981	57.3167019
R3.0065	R3.0	65	0.5379458	88.3806143	41.9311161	58.0688839
R3.0066	R3.0	66	0.5572013	87.8426685	41.1848378	58.8151622
R3.0067	R3.0	67	0.5770016	87.2854672	40.4445572	59.5554428
R3.0068	R3.0	68	0.5973559	86.7084656	39.7103682	60.2896318
R3.0069	R3.0	69	0.6182804	86.1111097	38.9823709	61.0176291
R3.0070	R3.0	70	0.6397857	85.4928293	38.2606740	61.7393260
R3.0071	R3.0	71	0.6618805	84.8530438	37.5453868	62.4548132
R3.0072	R3.0	72	0.6845751	84.1911631	36.8366242	63.1633758
R3.0073	R3.0	73	0.7078676	83.5065880	36.1345072	63.8654928
R3.0074	R3.0	74	0.7317868	82.7987204	35.4391561	64.5608439
R3.0075	R3.0	75	0.7563066	82.0669336	34.7507062	65.2492938
R3.0076	R3.0	76	0.7814368	81.3106270	34.0692878	65.9307122
R3.0077	R3.0	77	0.8071690	80.5291882	33.3950372	66.6049628
R3.0078	R3.0	78	0.8334932	79.7220192	32.7280932	67.2719068
R3.0079	R3.0	79	0.8603878	78.8885260	32.0685968	67.9314032
R3.0080	R3.0	80	0.8878355	78.0281382	31.4166920	68.5833080
R3.0081	R3.0	81	0.9158049	77.1403027	30.7725229	69.2274771
R3.0082	R3.0	82	0.9442616	76.2244978	30.1362350	69.8637650
R3.0083	R3.0	83	0.9731655	75.2802362	29.5079711	70.4920289
R3.0084	R3.0	84	1.0024595	74.3070707	28.8878751	71.1121249
R3.0085	R3.0	85	1.0320921	73.3046112	28.2760870	71.7239130
R3.0086	R3.0	86	1.0619917	72.2725191	27.6727450	72.3272550
R3.0087	R3.0	87	1.0920782	71.2105274	27.0779829	72.9220171
R3.0088	R3.0	88	1.1222725	70.1184492	26.4919291	73.5080709
R3.0089	R3.0	89	1.1524744	68.9961767	25.9147060	74.0852940

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R3.0090	R3.0	90	1.1825809	67.8437023	25.3464310	74.6535690
R3.0091	R3.0	91	1.2124787	66.6611214	24.7872109	75.2127891
R3.0092	R3.0	92	1.2420444	65.4486427	24.2371471	75.7628529
R3.0093	R3.0	93	1.2711425	64.2065983	23.6963310	76.3036690
R3.0094	R3.0	94	1.2996359	62.9354558	23.1648400	76.8351600
R3.0095	R3.0	95	1.3273778	61.6358199	22.6427441	77.3572559
R3.0096	R3.0	96	1.3542113	60.3084421	22.1301019	77.8698981
R3.0097	R3.0	97	1.3799820	58.9542308	21.6269579	78.3730421
R3.0098	R3.0	98	1.4045148	57.5742488	21.1333439	78.8686561
R3.0099	R3.0	99	1.4276528	56.1697340	20.6492770	79.3507230
R3.0100	R3.0	100	1.4492231	54.7420812	20.1747630	79.8252370
R3.0101	R3.0	101	1.4690599	53.2928581	19.7097900	80.2902100
R3.0102	R3.0	102	1.4869081	51.8237982	19.2543340	80.7456660
R3.0103	R3.0	103	1.5028572	50.3368101	18.8083510	81.1916490
R3.0104	R3.0	104	1.5164928	48.8339529	18.3717880	81.6282120
R3.0105	R3.0	105	1.5277629	47.3174801	17.9445670	82.0554330
R3.0106	R3.0	106	1.5365224	45.7896972	17.5266011	82.4733989
R3.0107	R3.0	107	1.5426388	44.2531748	17.1177840	82.8822160
R3.0108	R3.0	108	1.5460029	42.7105360	16.7179930	83.2820070
R3.0109	R3.0	109	1.5465211	41.1645331	16.3270869	83.6729131
R3.0110	R3.0	110	1.5441080	39.6180120	15.8449101	84.0550899
R3.0111	R3.0	111	1.5387101	38.0739040	15.5712870	84.4287130
R3.0112	R3.0	112	1.5302810	36.5351939	15.2060260	84.7939740
R3.0113	R3.0	113	1.5188141	35.0049129	14.8489180	85.1510820
R3.0114	R3.0	114	1.5043109	33.4860988	14.4997360	85.5002640
R3.0115	R3.0	115	1.4868099	31.9617879	14.1582340	85.8417660
R3.0116	R3.0	116	1.4663680	30.4949780	13.8241530	86.1758470
R3.0117	R3.0	117	1.4430571	29.0286100	13.4972171	86.5027829
R3.0118	R3.0	118	1.4169929	27.5855529	13.1771280	86.8228720
R3.0119	R3.0	119	1.3882911	26.1685600	12.8635780	87.1364220
R3.0120	R3.0	120	1.3571188	24.7802689	12.5562360	87.4437640
R3.0121	R3.0	121	1.3236401	23.4231501	12.2547650	87.7452350
R3.0122	R3.0	122	1.2880390	22.0995100	11.9588110	88.0411890
R3.0123	R3.0	123	1.2505269	20.8114710	11.6680059	88.3319941
R3.0124	R3.0	124	1.2113230	19.5609441	11.3819740	88.6180260
R3.0125	R3.0	125	1.1706541	18.3496211	11.1003320	88.8996680
R3.0126	R3.0	126	1.1287601	17.1789670	10.8226880	89.1773120
R3.0127	R3.0	127	1.0858769	16.0502069	10.5486490	89.4513510
R3.0128	R3.0	128	1.0422470	14.9643300	10.2778220	89.7221780
R3.0129	R3.0	129	0.9981119	13.9220830	10.0098190	89.9901810
R3.0130	R3.0	130	0.9536992	12.9239711	9.7442570	90.2557430
R3.0131	R3.0	131	0.9092329	11.9702719	9.4807680	90.5192320
R3.0132	R3.0	132	0.8649200	11.0610390	9.2190000	90.7810000
R3.0133	R3.0	133	0.8209611	10.1961190	8.9586190	91.0413810
R3.0134	R3.0	134	0.7775309	9.3751580	8.6993200	91.3006800

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R3.0135	R3.0	135	0.7347881	8.5976270	8.4408310	91.5591691
R3.0136	R3.0	136	0.6928700	7.8628390	8.1829081	91.8170919
R3.0137	R3.0	137	0.6518970	7.1699690	7.9253460	92.0746540
R3.0138	R3.0	138	0.6119650	6.5180720	7.6679810	92.3320190
R3.0139	R3.0	139	0.5731500	5.9061070	7.4106960	92.5893040
R3.0140	R3.0	140	0.5355110	5.3329570	7.1534120	92.8465880
R3.0141	R3.0	141	0.4990880	4.7974460	6.8960930	93.1039070
R3.0142	R3.0	142	0.4639030	4.2983580	6.6387510	93.3612490
R3.0143	R3.0	143	0.4299690	3.8344550	6.3814340	93.6185660
R3.0144	R3.0	144	0.3972850	3.4044860	6.1242290	93.8757710
R3.0145	R3.0	145	0.3658450	3.0072010	5.8672540	94.1327460
R3.0146	R3.0	146	0.3356360	2.6413560	5.6106530	94.3893470
R3.0147	R3.0	147	0.3066410	2.3057200	5.3545910	94.6454090
R3.0148	R3.0	148	0.2788620	1.9990790	5.0992460	94.9007540
R3.0149	R3.0	149	0.2522770	1.7202170	4.8448220	95.1551780
R3.0150	R3.0	150	0.2268850	1.4679400	4.5915160	95.4084840
R3.0151	R3.0	151	0.2026930	1.2410550	4.3395140	95.6604860
R3.0152	R3.0	152	0.1797100	1.0383620	4.0890000	95.9110000
R3.0153	R3.0	153	0.1579600	0.8586520	3.8401530	96.1598470
R3.0154	R3.0	154	0.1374690	0.7006920	3.5931400	96.4068600
R3.0155	R3.0	155	0.1182750	0.5632230	3.3480970	96.6519030
R3.0156	R3.0	156	0.1004170	0.4449480	3.1051630	96.8948370
R3.0157	R3.0	157	0.0839420	0.3445310	2.8644800	97.1355200
R3.0158	R3.0	158	0.0688930	0.2605890	2.6261500	97.3738500
R3.0159	R3.0	159	0.0553160	0.1916960	2.3902580	97.6097420
R3.0160	R3.0	160	0.0432485	0.1363800	2.1569580	97.8430420
R3.0161	R3.0	161	0.0327163	0.0931315	1.9263620	98.0736380
R3.0162	R3.0	162	0.0237359	0.0604152	1.6987790	98.3012210
R3.0163	R3.0	163	0.0163033	0.0366793	1.4745100	98.5254900
R3.0164	R3.0	164	0.0103913	0.0203760	1.2542690	98.7457310
R3.0165	R3.0	165	0.0059434	0.0099847	1.0392430	98.9607570
R3.0166	R3.0	166	0.0028646	0.0040413	0.8322900	99.1677100
R3.0167	R3.0	167	0.0010104	0.0011767	0.6413070	99.3586930
R3.0168	R3.0	168	0.0001662	0.0001662	0.4999820	99.5000180
R3.0169	R3.0	169	0.0000000	0.0000000	0.0000000	100.0000000

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R4.0000	R4.0	0	0.0008278	100.0000000	100.0000000	0.0000000
R4.0001	R4.0	1	0.0009632	99.9991722	99.0013161	0.9986839
R4.0002	R4.0	2	0.0011139	99.9982090	98.0022631	1.9977368
R4.0003	R4.0	3	0.0012894	99.9970951	97.0033197	2.9966803
R4.0004	R4.0	4	0.0014858	99.9958057	96.0045939	3.9954061
R4.0005	R4.0	5	0.0017109	99.9943199	95.0060129	4.9939871
R4.0006	R4.0	6	0.0019645	99.9926090	94.0076304	5.9923696
R4.0007	R4.0	7	0.0022536	99.9908445	93.0094681	6.9905319
R4.0008	R4.0	8	0.0025768	99.9883909	92.0115519	7.9884481
R4.0009	R4.0	9	0.0029430	99.9858141	91.0139113	8.9860887
R4.0010	R4.0	10	0.0033541	99.9828711	90.0165749	9.9834251
R4.0011	R4.0	11	0.0038157	99.9795170	89.0195789	10.9804211
R4.0012	R4.0	12	0.0043325	99.9757013	88.0229569	11.9770431
R4.0013	R4.0	13	0.0049095	99.9713688	87.0267496	12.9732504
R4.0014	R4.0	14	0.0055561	99.9664593	86.0310001	13.9689999
R4.0015	R4.0	15	0.0062743	99.9609032	85.0357533	14.9642467
R4.0016	R4.0	16	0.0070753	99.9548289	84.0410605	15.9589395
R4.0017	R4.0	17	0.0079612	99.9475536	83.0469732	16.9530268
R4.0018	R4.0	18	0.0089484	99.9395924	82.0535498	17.9464502
R4.0019	R4.0	19	0.0100383	99.9306440	81.0608521	18.9391479
R4.0020	R4.0	20	0.0112429	99.9208057	80.0689449	19.9310551
R4.0021	R4.0	21	0.0125732	99.9093628	79.0778990	20.9221010
R4.0022	R4.0	22	0.0140372	99.8987896	78.0877886	21.9122114
R4.0023	R4.0	23	0.0156517	99.8827524	77.0986939	22.9013081
R4.0024	R4.0	24	0.0174217	99.8671007	76.1106977	23.8893023
R4.0025	R4.0	25	0.0193634	99.8496790	75.1238899	24.8761101
R4.0026	R4.0	26	0.0214911	99.8303156	74.1383648	25.8616352
R4.0027	R4.0	27	0.0238161	99.8088245	73.1542206	26.8457794
R4.0028	R4.0	28	0.0263576	99.7850084	72.1715622	27.8284378
R4.0029	R4.0	29	0.0291262	99.7586508	71.1904984	28.8095016
R4.0030	R4.0	30	0.0321426	99.7295248	70.2111445	29.7886555
R4.0031	R4.0	31	0.0354223	99.6973820	69.2336187	30.7663813
R4.0032	R4.0	32	0.0389815	99.6619597	68.2580481	31.7419519
R4.0033	R4.0	33	0.0428438	99.6229782	67.2845621	32.7154379
R4.0034	R4.0	34	0.0470247	99.5801344	66.3132954	33.6867046
R4.0035	R4.0	35	0.0515423	99.5331097	65.3443880	34.6556120
R4.0036	R4.0	36	0.0564251	99.4815674	64.3779860	35.6220140
R4.0037	R4.0	37	0.0616894	99.4251423	63.4142370	36.5857630
R4.0038	R4.0	38	0.0673580	99.3634529	62.4532971	37.5467029
R4.0039	R4.0	39	0.0734539	99.2960949	61.4953232	38.5046768
R4.0040	R4.0	40	0.0800018	99.2226410	60.5404782	39.4595218
R4.0041	R4.0	41	0.0870266	99.1426392	59.5889268	40.4110732
R4.0042	R4.0	42	0.0945492	99.0556126	58.6408401	41.3591599
R4.0043	R4.0	43	0.1025982	98.9610634	57.6963892	42.3036108
R4.0044	R4.0	44	0.1111975	98.8584652	56.7557492	43.2442508

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R4.0045	R4.0	45	0.1203727	98.7472677	55.8190970	44.1809030
R4.0046	R4.0	46	0.1301480	98.6268950	54.8886129	45.1133871
R4.0047	R4.0	47	0.1405506	98.4987470	53.9584770	46.0415230
R4.0048	R4.0	48	0.1516085	98.3561964	53.0348692	46.9651308
R4.0049	R4.0	49	0.1633424	98.2045879	52.1159720	47.8840280
R4.0050	R4.0	50	0.1757803	98.0412455	51.2019682	48.7980318
R4.0051	R4.0	51	0.1889468	97.8654652	50.2930360	49.7069640
R4.0052	R4.0	52	0.2028656	97.6765184	49.3893561	50.6108439
R4.0053	R4.0	53	0.2175588	97.4736528	48.4911060	51.5088940
R4.0054	R4.0	54	0.2326536	97.2560940	47.5984602	52.4015398
R4.0055	R4.0	55	0.2497578	97.0234404	46.7115922	53.2884078
R4.0056	R4.0	56	0.2685119	96.7736826	45.8306670	54.1693330
R4.0057	R4.0	57	0.2885173	96.5071707	44.9558511	55.0441489
R4.0058	R4.0	58	0.3034000	96.2226534	44.0873008	55.9126992
R4.0059	R4.0	59	0.3231707	95.9192534	43.2251711	56.7748269
R4.0060	R4.0	60	0.3438416	95.5960827	42.3696070	57.6303930
R4.0061	R4.0	61	0.3654260	95.2522411	41.5207481	58.4792519
R4.0062	R4.0	62	0.3879290	94.8868151	40.6787262	59.3212738
R4.0063	R4.0	63	0.4113550	94.4988861	39.8436651	60.1583349
R4.0064	R4.0	64	0.4357090	94.0875311	39.0156770	60.9843230
R4.0065	R4.0	65	0.4609862	93.6518221	38.1948690	61.8051310
R4.0066	R4.0	66	0.4871807	93.1908369	37.3813329	62.6186671
R4.0067	R4.0	67	0.5142960	92.7036562	36.5751538	63.4248462
R4.0068	R4.0	68	0.5422650	92.1893702	35.7764020	64.2235980
R4.0069	R4.0	69	0.5711651	91.6470862	34.9851360	65.0148840
R4.0070	R4.0	70	0.6009006	91.0759201	34.2014031	65.7985969
R4.0071	R4.0	71	0.6314631	90.4750195	33.4252348	66.5747662
R4.0072	R4.0	72	0.6628237	89.8435564	32.6566491	67.3433509
R4.0073	R4.0	73	0.6949434	89.1807327	31.8956490	68.1043510
R4.0074	R4.0	74	0.7277765	88.4857893	31.1422219	68.8577781
R4.0075	R4.0	75	0.7612762	87.7580128	30.3963370	69.6036630
R4.0076	R4.0	76	0.7953930	86.9967346	29.6579499	70.3420501
R4.0077	R4.0	77	0.8300562	86.2013416	28.9269941	71.0730059
R4.0078	R4.0	78	0.8652038	85.3712654	28.2033880	71.7966120
R4.0079	R4.0	79	0.9007626	84.5060816	27.4870250	72.5129750
R4.0080	R4.0	80	0.9366550	83.6053190	26.7777620	73.2222180
R4.0081	R4.0	81	0.9727898	82.6686640	26.0755160	73.9244840
R4.0082	R4.0	82	1.0092020	81.6958742	25.3800550	74.6199450
R4.0083	R4.0	83	1.0464849	80.6866722	24.6912470	75.3087530
R4.0084	R4.0	84	1.0855894	79.6401873	24.0091240	75.9908760
R4.0085	R4.0	85	1.1274805	78.5545979	23.3340089	76.6659911
R4.0086	R4.0	86	1.1729546	77.4271174	22.6665139	77.3334861
R4.0087	R4.0	87	1.2225552	76.2541628	22.0074830	77.9925170
R4.0088	R4.0	88	1.2765531	75.0316078	21.3579230	78.6420770
R4.0089	R4.0	89	1.3349047	73.7550545	20.7189319	79.2810681

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R4.0090	R4.0	90	1.3973417	72.4201498	20.0916240	79.9083760
R4.0091	R4.0	91	1.4632540	71.0228081	19.4770801	80.5229199
R4.0092	R4.0	92	1.5318708	69.5595541	18.8762820	81.1237180
R4.0093	R4.0	93	1.6022349	68.0276833	18.2900851	81.7099149
R4.0094	R4.0	94	1.6732702	66.4254484	17.7191961	82.2808039
R4.0095	R4.0	95	1.7437983	64.7521782	17.1641600	82.8358400
R4.0096	R4.0	96	1.8126111	63.0083799	16.6253510	83.3746490
R4.0097	R4.0	97	1.8785019	61.1957688	16.1029799	83.8970201
R4.0098	R4.0	98	1.9403057	59.3172669	15.5971090	84.4028910
R4.0099	R4.0	99	1.9969244	57.3769612	15.1076440	84.8923560
R4.0100	R4.0	100	2.0473558	55.3800366	14.6343750	85.3666250
R4.0101	R4.0	101	2.0907240	53.3328812	14.1769710	85.8230290
R4.0102	R4.0	102	2.1262794	51.2419572	13.7350060	86.2649940
R4.0103	R4.0	103	2.1534547	49.1156778	13.3079650	86.6920350
R4.0104	R4.0	104	2.1718040	46.9622231	12.8952750	87.1047250
R4.0105	R4.0	105	2.1810722	44.7904191	12.4962990	87.5037010
R4.0106	R4.0	106	2.1811419	42.6093469	12.1103610	87.8898390
R4.0107	R4.0	107	2.1720636	40.4282050	11.7367520	88.2632480
R4.0108	R4.0	108	2.1540241	38.2561412	11.3747400	88.6252600
R4.0109	R4.0	109	2.1273389	36.1021171	11.0235781	88.9764219
R4.0110	R4.0	110	2.0924511	33.9747782	10.6825140	89.3174860
R4.0111	R4.0	111	2.0498882	31.8823271	10.3507971	89.6492029
R4.0112	R4.0	112	2.0002858	29.8324389	10.0276790	89.9723210
R4.0113	R4.0	113	1.9443300	27.8321531	9.7124300	90.2875700
R4.0114	R4.0	114	1.8827472	25.8878231	9.4043380	90.5958620
R4.0115	R4.0	115	1.8162958	24.0050759	9.1027160	90.8972840
R4.0116	R4.0	116	1.7457612	22.1887801	8.8069040	91.1930960
R4.0117	R4.0	117	1.6718969	20.4430189	8.5162840	91.4837160
R4.0118	R4.0	118	1.5954540	18.7711220	8.2302750	91.7697250
R4.0119	R4.0	119	1.5171400	17.1758680	7.9483430	92.0516570
R4.0120	R4.0	120	1.4376240	15.6586280	7.6700060	92.3299940
R4.0121	R4.0	121	1.3575180	14.2209040	7.3948390	92.6051610
R4.0122	R4.0	122	1.2773730	12.8633860	7.1224760	92.8775240
R4.0123	R4.0	123	1.1976880	11.5860130	6.8526120	93.1473880
R4.0124	R4.0	124	1.1186790	10.3883250	6.5850130	93.4149870
R4.0125	R4.0	125	1.0413181	9.2694460	6.3195140	93.6804860
R4.0126	R4.0	126	0.9653040	8.2281280	6.0560060	93.9439940
R4.0127	R4.0	127	0.8910890	7.2628240	5.7944580	94.2055420
R4.0128	R4.0	128	0.8188760	6.3717350	5.5348880	94.4651120
R4.0129	R4.0	129	0.7488360	5.5528590	5.2773810	94.7226190
R4.0130	R4.0	130	0.6811100	4.8040230	5.0220640	94.9779360
R4.0131	R4.0	131	0.6158200	4.1229130	4.7691140	95.2308860
R4.0132	R4.0	132	0.5530780	3.5070930	4.5187400	95.4812600
R4.0133	R4.0	133	0.4930080	2.9540150	4.2715210	95.7284790
R4.0134	R4.0	134	0.4357350	2.4610070	4.0273490	95.9726510

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
R4.0135	R4.0	135	0.3814000	2.0252720	3.7864600	96.2135400
R4.0136	R4.0	136	0.3301680	1.6438720	3.5490210	96.4509790
R4.0137	R4.0	137	0.2822160	1.3137040	3.3315155	96.6848450
R4.0138	R4.0	138	0.2377380	1.0314880	3.0849760	96.9150220
R4.0139	R4.0	139	0.1969280	0.7937500	2.8585610	97.1414190
R4.0140	R4.0	140	0.1599700	0.5968220	2.6360510	97.3639490
R4.0141	R4.0	141	0.1270220	0.4368520	2.4174760	97.5825240
R4.0142	R4.0	142	0.0981670	0.3098300	2.2029340	97.7970660
R4.0143	R4.0	143	0.0734960	0.2116430	1.9925030	98.0074970
R4.0144	R4.0	144	0.0529003	0.1381470	1.7862640	98.2137160
R4.0145	R4.0	145	0.0362607	0.0852467	1.5844010	98.4155990
R4.0146	R4.0	146	0.0233463	0.0489860	1.3870900	98.6129100
R4.0147	R4.0	147	0.0138307	0.0256397	1.1948260	98.8051740
R4.0148	R4.0	148	0.0072946	0.0118090	1.0086400	98.9913600
R4.0149	R4.0	149	0.0032339	0.0045142	0.8306070	99.1693930
R4.0150	R4.0	150	0.0010741	0.0012803	0.6657290	99.3342710
R4.0151	R4.0	151	0.0002001	0.0002061	0.5292760	99.4707220
R4.0152	R4.0	152	0.0000060	0.0000060	0.5000830	99.4999170
R4.0153	R4.0	153	0.0000000	0.0000000	0.0000000	100.0000000

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
S3.0000	S3.0	0	0.0000000	100.0000000	100.0000000	0.0000000
S3.0001	S3.0	1	0.0000000	100.0000000	99.0000000	1.0000000
S3.0002	S3.0	2	0.0000000	100.0000000	98.0000000	2.0000000
S3.0003	S3.0	3	0.0000000	100.0000000	97.0000000	3.0000000
S3.0004	S3.0	4	0.0000000	100.0000000	96.0000000	4.0000000
S3.0005	S3.0	5	0.0000000	100.0000000	95.0000000	5.0000000
S3.0006	S3.0	6	0.0000009	100.0000000	94.0000000	6.0000000
S3.0007	S3.0	7	0.0000029	99.9999991	93.0000010	6.9999990
S3.0008	S3.0	8	0.0000057	99.9999962	92.0000038	7.9999962
S3.0009	S3.0	9	0.0000124	99.9999905	91.0000086	8.9999914
S3.0010	S3.0	10	0.0000229	99.9999781	90.0000200	9.9999800
S3.0011	S3.0	11	0.0000410	99.9999552	89.0000401	10.9999599
S3.0012	S3.0	12	0.0000706	99.9999142	88.0000773	11.9999227
S3.0013	S3.0	13	0.0001154	99.9998436	87.0001392	12.9998608
S3.0014	S3.0	14	0.0001821	99.9997282	86.0002394	13.9997606
S3.0015	S3.0	15	0.0002785	99.9995461	85.0003939	14.9996061
S3.0016	S3.0	16	0.0004120	99.9992676	84.0006294	15.9993706
S3.0017	S3.0	17	0.0005932	99.9988556	83.0009728	16.9990272
S3.0018	S3.0	18	0.0008402	99.9982624	82.0014629	17.9985371
S3.0019	S3.0	19	0.0011616	99.9974222	81.0021467	18.9978533
S3.0020	S3.0	20	0.0015783	99.9962606	80.0030832	19.9969168
S3.0021	S3.0	21	0.0021086	99.9946823	79.0043373	20.9956627
S3.0022	S3.0	22	0.0027761	99.9925737	78.0059929	21.9940071
S3.0023	S3.0	23	0.0036030	99.9897976	77.0081453	22.9918547
S3.0024	S3.0	24	0.0046177	99.9861946	76.0109024	23.9890976
S3.0025	S3.0	25	0.0058498	99.9815769	75.0143890	24.9856110
S3.0026	S3.0	26	0.0073300	99.9757271	74.0187492	25.9812508
S3.0027	S3.0	27	0.0090951	99.9683971	73.0241404	26.9758596
S3.0028	S3.0	28	0.0111771	99.9593020	72.0307388	27.9692612
S3.0029	S3.0	29	0.0136185	99.9481249	71.0387383	28.9612617
S3.0030	S3.0	30	0.0164585	99.9345064	70.0483513	29.9516487
S3.0031	S3.0	31	0.0197382	99.9180479	69.0598068	30.9401932
S3.0032	S3.0	32	0.0235014	99.8983097	68.0733528	31.9266472
S3.0033	S3.0	33	0.0277939	99.8748083	67.0892544	32.9107456
S3.0034	S3.0	34	0.0326624	99.8470144	66.1077900	33.8922100
S3.0035	S3.0	35	0.0381479	99.8143520	65.1292582	34.8707418
S3.0036	S3.0	36	0.0443048	99.7762041	64.1539688	35.8460312
S3.0037	S3.0	37	0.0511732	99.7318993	63.1822462	36.8177538
S3.0038	S3.0	38	0.0588046	99.6807261	62.2144260	37.7855740
S3.0039	S3.0	39	0.0672397	99.6219215	61.2508540	38.7491460
S3.0040	S3.0	40	0.0765267	99.5546818	60.2918859	39.7081141
S3.0041	S3.0	41	0.0867071	99.4781551	59.3378830	40.6621170
S3.0042	S3.0	42	0.0978231	99.3914480	58.3892121	41.6107879
S3.0043	S3.0	43	0.1099110	99.2936249	57.4462428	42.5537572
S3.0044	S3.0	44	0.1230097	99.1837139	56.5093489	43.4906511

database

Iowa Survivor Curves

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
S3.0045	S3.0	45	0.1371507	99.0607042	55.5788989	44.4211011
S3.0046	S3.0	46	0.1523667	98.9235535	54.6552620	45.3447380
S3.0047	S3.0	47	0.1686792	98.7711868	53.7388029	46.2611971
S3.0048	S3.0	48	0.1861134	98.6025076	52.8298788	47.1701212
S3.0049	S3.0	49	0.2046880	98.4163942	51.9288392	48.0711608
S3.0050	S3.0	50	0.2244149	98.2117062	51.0360251	48.9639749
S3.0051	S3.0	51	0.2453012	97.9872913	50.1517639	49.8482361
S3.0052	S3.0	52	0.2673512	97.7419901	49.2763739	50.7236261
S3.0053	S3.0	53	0.2905626	97.4746389	48.4101572	51.5898428
S3.0054	S3.0	54	0.3149290	97.1840763	47.5534000	52.4466000
S3.0055	S3.0	55	0.3404341	96.8691473	46.7063732	53.2936268
S3.0056	S3.0	56	0.3670616	96.5287132	45.8693328	54.1306672
S3.0057	S3.0	57	0.3947830	96.1616516	45.0425129	54.9574871
S3.0058	S3.0	58	0.4235687	95.7668686	44.2261319	55.7738681
S3.0059	S3.0	59	0.4533825	95.3432999	43.4203882	56.5796118
S3.0060	S3.0	60	0.4841824	94.8899174	42.6254621	57.3745379
S3.0061	S3.0	61	0.5159149	94.4057350	41.8415122	58.1584878
S3.0062	S3.0	62	0.5485287	93.8898201	41.0686789	58.9313211
S3.0063	S3.0	63	0.5819635	93.3412914	40.3070850	59.6929150
S3.0064	S3.0	64	0.6161499	92.7593279	39.5568309	60.4431691
S3.0065	S3.0	65	0.6510201	92.1431780	38.8179989	61.1820011
S3.0066	S3.0	66	0.6864967	91.4921579	38.0906539	61.9093461
S3.0067	S3.0	67	0.7224970	90.8056612	37.3748412	62.6251588
S3.0068	S3.0	68	0.7589350	90.0831642	36.6705899	63.3294101
S3.0069	S3.0	69	0.7957239	89.3242292	35.9779110	64.0220890
S3.0070	S3.0	70	0.8327675	88.5285053	35.2967982	64.7032018
S3.0071	S3.0	71	0.8699665	87.6957378	34.6272311	65.3727689
S3.0072	S3.0	72	0.9072227	86.8257713	33.9691749	66.0308251
S3.0073	S3.0	73	0.9444323	85.9185486	33.3225799	66.6774201
S3.0074	S3.0	74	0.9814892	84.9741163	32.6873822	67.3126178
S3.0075	S3.0	75	1.0182848	83.9926271	32.0635042	67.9364958
S3.0076	S3.0	76	1.0547151	82.9743423	31.4508619	68.5491381
S3.0077	S3.0	77	1.0906649	81.9196272	30.8493540	69.1506460
S3.0078	S3.0	78	1.1260299	80.8289623	30.2588730	69.7411270
S3.0079	S3.0	79	1.1606951	79.7029324	29.6793010	70.3206990
S3.0080	S3.0	80	1.1945553	78.5422373	29.1105120	70.8894880
S3.0081	S3.0	81	1.2275000	77.3476820	28.5523710	71.4476290
S3.0082	S3.0	82	1.2594261	76.1201820	28.0047390	71.9952610
S3.0083	S3.0	83	1.2902269	74.8607559	27.4674680	72.5325320
S3.0084	S3.0	84	1.3198013	73.5705290	26.9404030	73.0595970
S3.0085	S3.0	85	1.3480530	72.2507277	26.4233890	73.5766110
S3.0086	S3.0	86	1.3748846	70.9026747	25.9162619	74.0837381
S3.0087	S3.0	87	1.4002104	69.5277901	25.4188600	74.5811400
S3.0088	S3.0	88	1.4239378	68.1275797	24.9310110	75.0689890
S3.0089	S3.0	89	1.4459896	66.7036419	24.4525449	75.5474551

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
S3.0090	S3.0	90	1.4662924	65.2576523	23.9832900	76.0167100
S3.0091	S3.0	91	1.4847698	63.7913599	23.5230711	76.4769289
S3.0092	S3.0	92	1.5013619	62.3065901	23.0717111	76.9282889
S3.0093	S3.0	93	1.5160102	60.8052282	22.6290381	77.3709619
S3.0094	S3.0	94	1.5286632	59.2892180	22.1948710	77.8051290
S3.0095	S3.0	95	1.5392757	57.7605548	21.7690370	78.2309630
S3.0096	S3.0	96	1.5478119	56.2212791	21.3513601	78.6486399
S3.0097	S3.0	97	1.5542393	54.6734672	20.9416640	79.0583360
S3.0098	S3.0	98	1.5585370	53.1192279	20.5397761	79.4602239
S3.0099	S3.0	99	1.5606909	51.5606909	20.1455231	79.8544769
S3.0100	S3.0	100	1.5606909	50.0000000	19.7587349	80.2412651
S3.0101	S3.0	101	1.5585370	48.4393091	19.3792419	80.6207581
S3.0102	S3.0	102	1.5542393	46.8807721	19.0068769	80.9931231
S3.0103	S3.0	103	1.5478119	45.3265328	18.6414750	81.3585250
S3.0104	S3.0	104	1.5392757	43.7787209	18.2828729	81.7171271
S3.0105	S3.0	105	1.5286631	42.2394452	17.9309101	82.0690899
S3.0106	S3.0	106	1.5160103	40.7107821	17.5854299	82.4145701
S3.0107	S3.0	107	1.5013619	39.1947718	17.2462750	82.7537250
S3.0108	S3.0	108	1.4847698	37.6934099	16.9132950	83.0867050
S3.0109	S3.0	109	1.4662919	36.2086401	16.5863359	83.4136641
S3.0110	S3.0	110	1.4459901	34.7423482	16.2652550	83.7347450
S3.0111	S3.0	111	1.4239380	33.2963581	15.9499090	84.0500910
S3.0112	S3.0	112	1.4002102	31.8724201	15.6401500	84.3598500
S3.0113	S3.0	113	1.3748848	30.4722099	15.3358450	84.6641550
S3.0114	S3.0	114	1.3480530	29.0973251	15.0368600	84.9631400
S3.0115	S3.0	115	1.3198011	27.7492721	14.7430561	85.2569439
S3.0116	S3.0	116	1.2902269	26.4294710	14.4543080	85.5456920
S3.0117	S3.0	117	1.2594261	25.1392441	14.1704850	85.8295150
S3.0118	S3.0	118	1.2275000	23.8798180	13.8914710	86.1085290
S3.0119	S3.0	119	1.1945550	22.6523180	13.6171401	86.3828599
S3.0120	S3.0	120	1.1606951	21.4577630	13.3473700	86.6526300
S3.0121	S3.0	121	1.1260300	20.2970679	13.0820510	86.9179490
S3.0122	S3.0	122	1.0906648	19.1710379	12.8210681	87.1789319
S3.0123	S3.0	123	1.0547152	18.0803731	12.5643160	87.4356840
S3.0124	S3.0	124	1.0182848	17.0256579	12.3116800	87.6883200
S3.0125	S3.0	125	0.9814891	16.0073731	12.0630680	87.9369320
S3.0126	S3.0	126	0.9444329	15.0258840	11.8183630	88.1816370
S3.0127	S3.0	127	0.9072221	14.0814511	11.5774790	88.4225210
S3.0128	S3.0	128	0.8699670	13.1742290	11.3403140	88.6596860
S3.0129	S3.0	129	0.8327670	12.3042620	11.1067700	88.8932300
S3.0130	S3.0	130	0.7957240	11.4714950	10.8767610	89.1232390
S3.0131	S3.0	131	0.7589350	10.6757710	10.6501980	89.3498020
S3.0132	S3.0	132	0.7224970	9.9168360	10.4270001	89.5729999
S3.0133	S3.0	133	0.6864971	9.1943390	10.2070690	89.7929310
S3.0134	S3.0	134	0.6510199	8.5078420	9.9903250	90.0096750

database

Iowa Survivor Curves

Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
S3.0135	S3.0	135	0.6161500	7.8568220	9.7766990	90.2233011
S3.0136	S3.0	136	0.5819630	7.2406720	9.5661089	90.4338911
S3.0137	S3.0	137	0.5485290	6.6587090	9.3584729	90.6415271
S3.0138	S3.0	138	0.5159150	6.1101800	9.1537210	90.8462790
S3.0139	S3.0	139	0.4841820	5.5942650	8.9517880	91.0482121
S3.0140	S3.0	140	0.4533830	5.1100830	8.7525981	91.2474020
S3.0141	S3.0	141	0.4235690	4.6567000	8.5560840	91.4439160
S3.0142	S3.0	142	0.3947830	4.2331310	8.3621800	91.6378200
S3.0143	S3.0	143	0.3670610	3.8383480	8.1708230	91.8291770
S3.0144	S3.0	144	0.3404340	3.4712870	7.9819520	92.0180480
S3.0145	S3.0	145	0.3149290	3.1308530	7.7955040	92.2044960
S3.0146	S3.0	146	0.2905630	2.8159240	7.6114220	92.3885780
S3.0147	S3.0	147	0.2673510	2.5253610	7.4296480	92.5703520
S3.0148	S3.0	148	0.2453010	2.2580100	7.2501270	92.7498730
S3.0149	S3.0	149	0.2244150	2.0127090	7.0728060	92.9271940
S3.0150	S3.0	150	0.2046880	1.7882940	6.8978320	93.1023680
S3.0151	S3.0	151	0.1861140	1.5836060	6.7245530	93.2754470
S3.0152	S3.0	152	0.1686790	1.3974920	6.5535220	93.4464780
S3.0153	S3.0	153	0.1523860	1.2288130	6.3844900	93.6155100
S3.0154	S3.0	154	0.1371510	1.0764470	6.2174110	93.7825890
S3.0155	S3.0	155	0.1230100	0.9392960	6.0522380	93.9477620
S3.0156	S3.0	156	0.1099110	0.8162860	5.8889290	94.1110710
S3.0157	S3.0	157	0.0978230	0.7063750	5.7274410	94.2725590
S3.0158	S3.0	158	0.0867070	0.6085520	5.5677320	94.4322680
S3.0159	S3.0	159	0.0765270	0.5218450	5.4097620	94.5902380
S3.0160	S3.0	160	0.0672400	0.4453180	5.2534920	94.7465080
S3.0161	S3.0	161	0.0588040	0.3780780	5.0988860	94.9011140
S3.0162	S3.0	162	0.0511730	0.3192740	4.9459060	95.0540940
S3.0163	S3.0	163	0.0443050	0.2681010	4.7945200	95.2054800
S3.0164	S3.0	164	0.0381480	0.2237960	4.6446910	95.3553090
S3.0165	S3.0	165	0.0326620	0.1856480	4.4963870	95.5036130
S3.0166	S3.0	166	0.0277940	0.1529860	4.3495800	95.6504200
S3.0167	S3.0	167	0.0235020	0.1251920	4.2042330	95.7957670
S3.0168	S3.0	168	0.0197375	0.1016900	4.0603190	95.9396810
S3.0169	S3.0	169	0.0164582	0.0819525	3.9178100	96.0821900
S3.0170	S3.0	170	0.0136189	0.0654943	3.7766790	96.2233210
S3.0171	S3.0	171	0.0111777	0.0518754	3.6369070	96.3630930
S3.0172	S3.0	172	0.0090944	0.0406977	3.4984640	96.5015360
S3.0173	S3.0	173	0.0073307	0.0318033	3.3613300	96.6386700
S3.0174	S3.0	174	0.0058498	0.0242726	3.2254840	96.7745160
S3.0175	S3.0	175	0.0046178	0.0184228	3.0909090	96.9090910
S3.0176	S3.0	176	0.0036030	0.0138050	2.9575850	97.0424150
S3.0177	S3.0	177	0.0027755	0.0102020	2.8255000	97.1745000
S3.0178	S3.0	178	0.0021089	0.0074265	2.6946400	97.3053600
S3.0179	S3.0	179	0.0015783	0.0053176	2.5649990	97.4350010

database

Iowa Survivor Curves

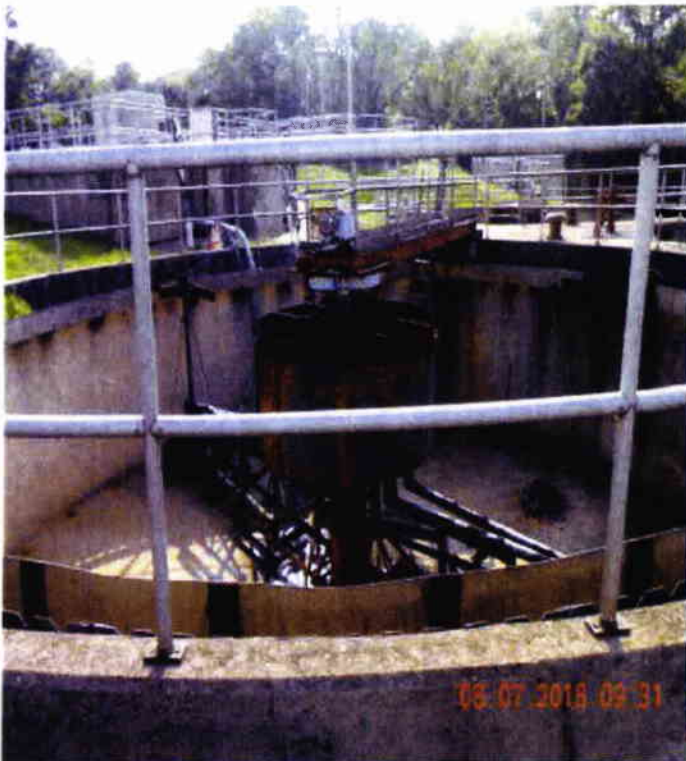
Iowa-type Retirement - Survival Tables

Percent Retired, Surviving, Condition, and Depreciation Reserve
as a function of Age as a Percent of Average Service Life

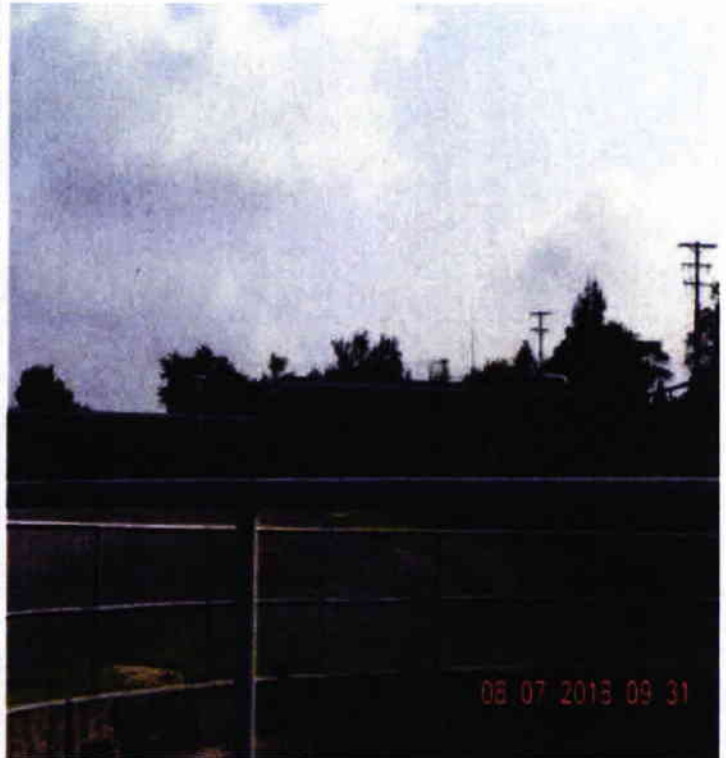
1	2	3	4	5	6	7
Lookup	Curve	Age %	% Ret	% Surv	% Cond	% Depr Resv
S3.0180	S3.0	180	0.0011617	0.0037393	2.4365660	97.5634340
S3.0181	S3.0	181	0.0008396	0.0025776	2.3093440	97.6906560
S3.0182	S3.0	182	0.0005946	0.0017381	2.1833410	97.8166590
S3.0183	S3.0	183	0.0004116	0.0011435	2.0585660	97.9414340
S3.0184	S3.0	184	0.0002778	0.0007319	1.9350420	98.0649580
S3.0185	S3.0	185	0.0001821	0.0004541	1.8128020	98.1871980
S3.0186	S3.0	186	0.0001156	0.0002720	1.6918880	98.3081120
S3.0187	S3.0	187	0.0000706	0.0001564	1.5723710	98.4276290
S3.0188	S3.0	188	0.0000413	0.0000858	1.4543500	98.5456500
S3.0189	S3.0	189	0.0000229	0.0000446	1.3379620	98.6620380
S3.0190	S3.0	190	0.0000119	0.0000217	1.2234140	98.7765860
S3.0191	S3.0	191	0.0000058	0.0000097	1.1110030	98.8889970
S3.0192	S3.0	192	0.0000025	0.0000040	1.0011880	98.9988120
S3.0193	S3.0	193	0.0000010	0.0000014	0.8946340	99.1053660
S3.0194	S3.0	194	0.0000003	0.0000004	0.7925260	99.2074740
S3.0195	S3.0	195	0.0000001	0.0000001	0.6968450	99.3031550
S3.0196	S3.0	196	0.0000000	0.0000000	0.6112800	99.3887200
S3.0197	S3.0	197	0.0000000	0.0000000	0.5431250	99.4568750
S3.0198	S3.0	198	0.0000000	0.0000000	0.5056800	99.4943200
S3.0199	S3.0	199	0.0000000	0.0000000	0.5000000	99.5000000
S3.0200	S3.0	200	0.0000000	0.0000000	0.0000000	100.0000000

EXTER TOWNSHIP

Site Visit 8-7-2018



Original Clarifier (not used)



Original Control & Blower Bldg. (not used)



Original Clarifier (not used)



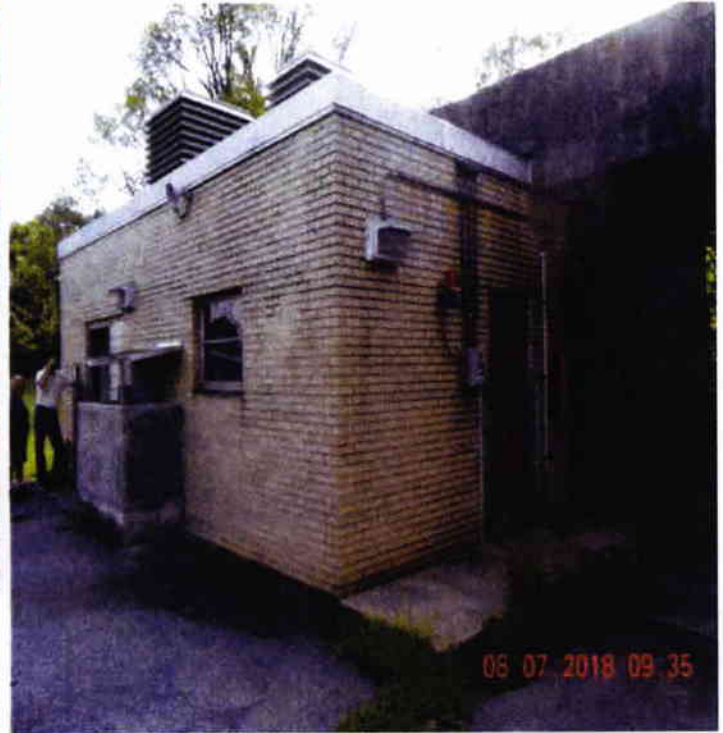
Original Contact Tanks (not used)

EXTER TOWNSHIP

Site Visit 8-7-2018



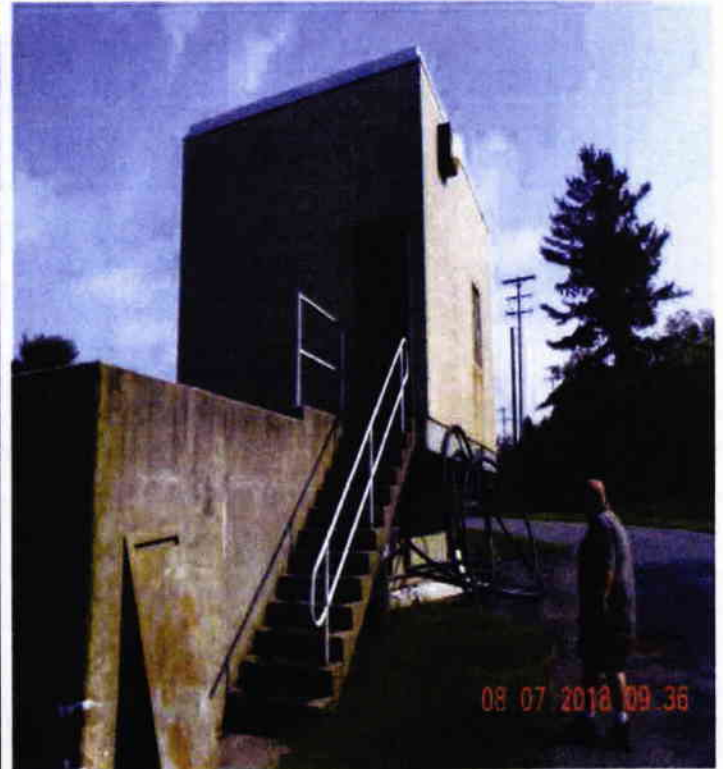
Original Construction – Wet Well (in use)



Original Construction – Wet Well Outside (in use)



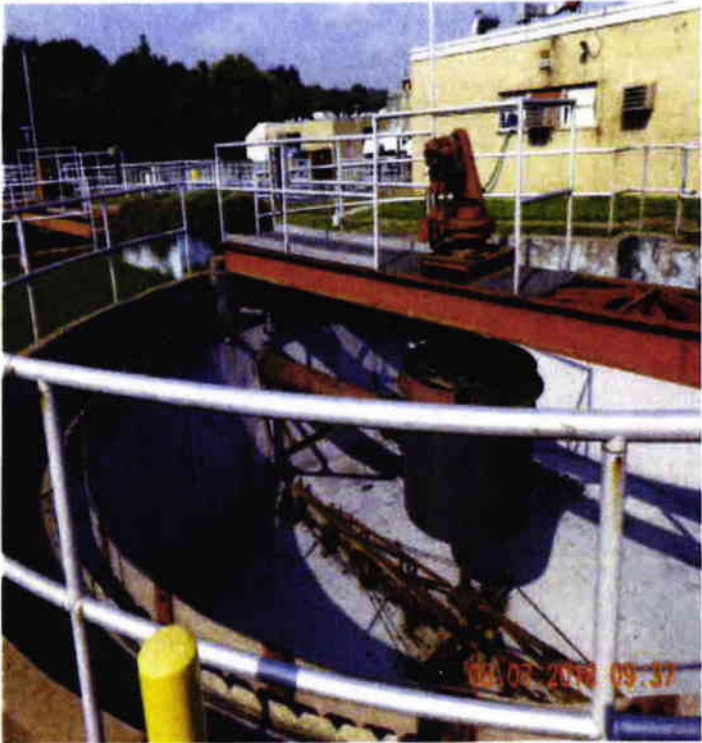
Original Construction – Wet Well Control Panel



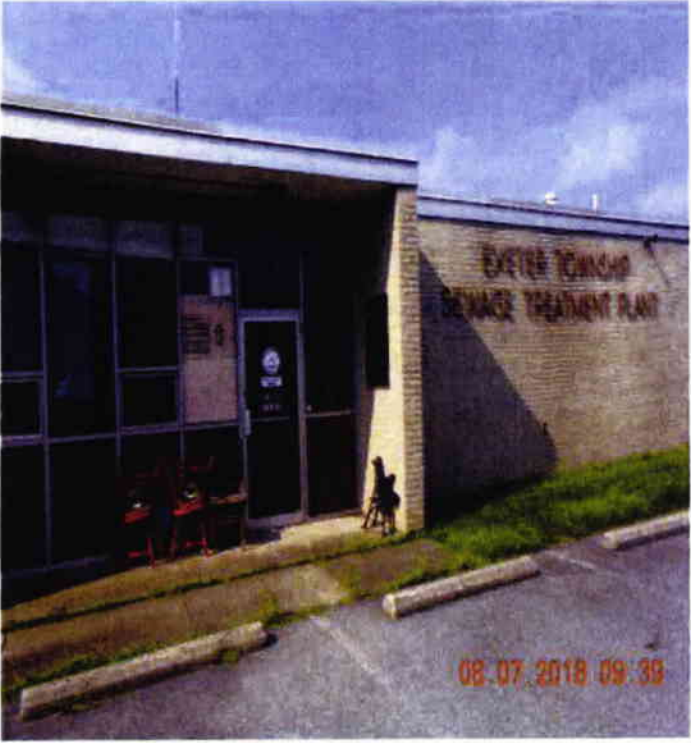
Original Construction – Grit Bldg. (not used)

EXTER TOWNSHIP

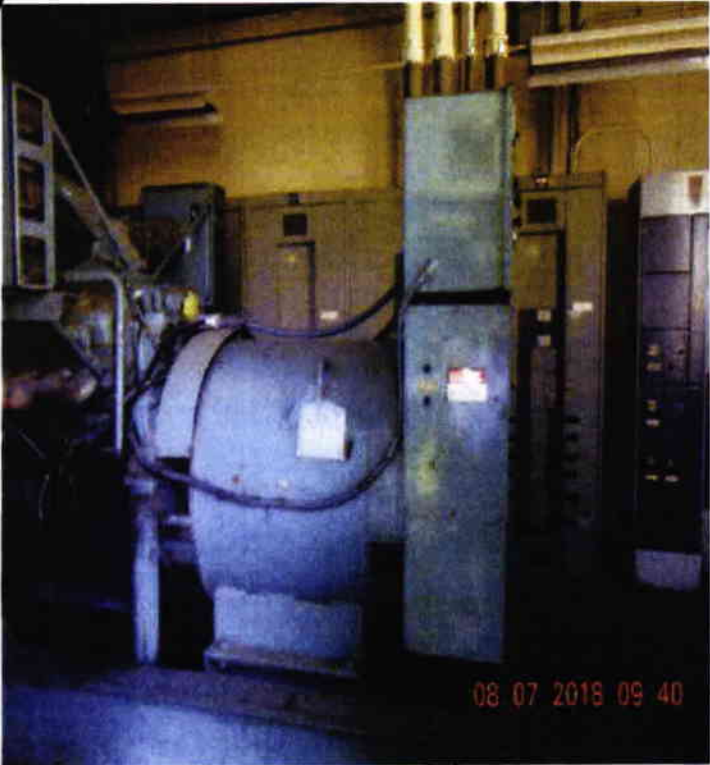
Site Visit 8-7-2018



Original Construction – Clarifier (not used) Total of 4



Original Construction – Control & Blower Bldg.



Back-up Diesel Generator



Back-up Power Bldg.

EXTER TOWNSHIP

Site Visit 8-7-2018



Digester Bldg.



Digester



Basement of Digester Bldg.



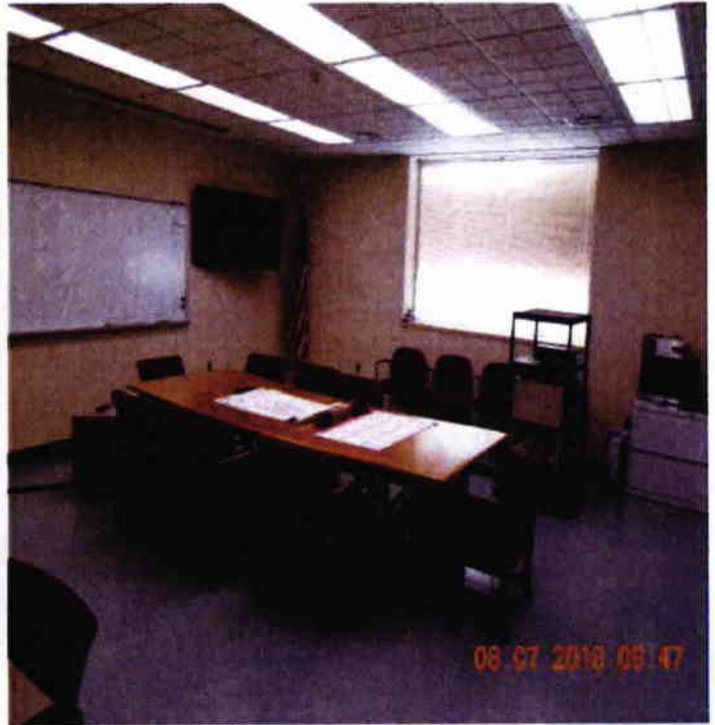
Basement of Digester Bldg.

EXTER TOWNSHIP

Site Visit 8-7-2018



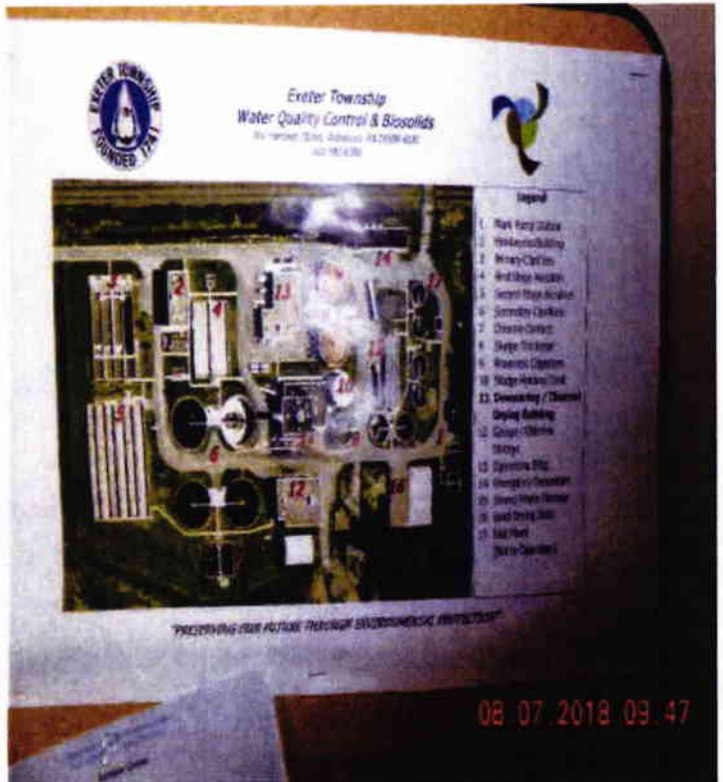
Operations Bldg.



Meeting Room



Offices



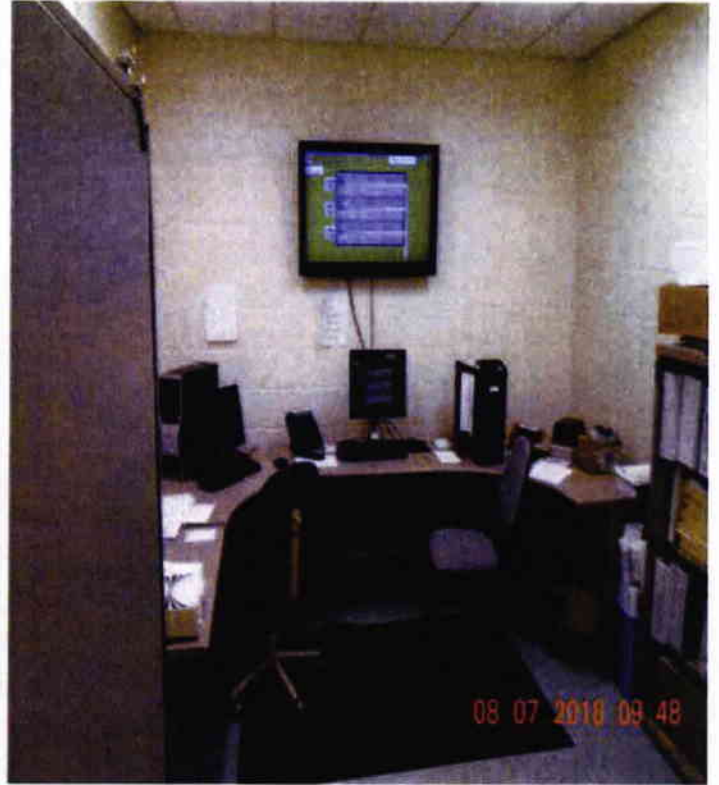
Map

EXTER TOWNSHIP

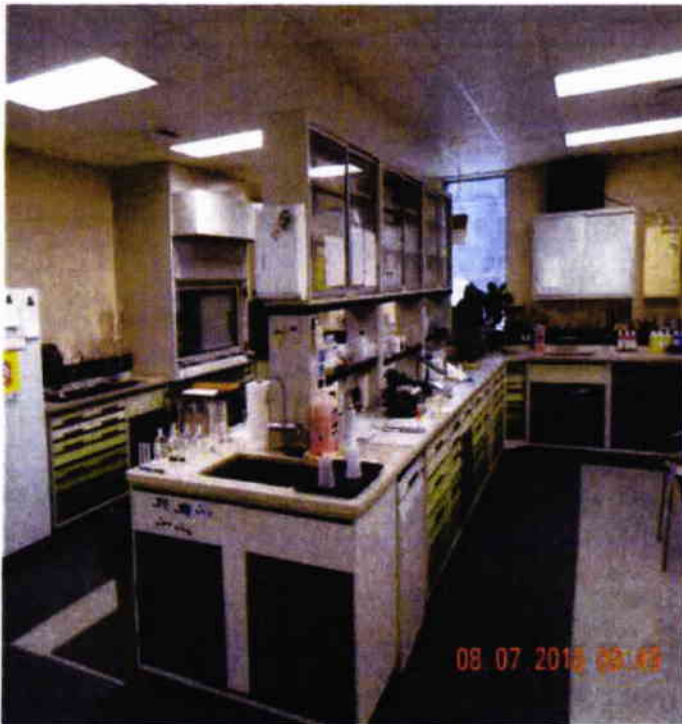
Site Visit 8-7-2018



Break Room



Control Building



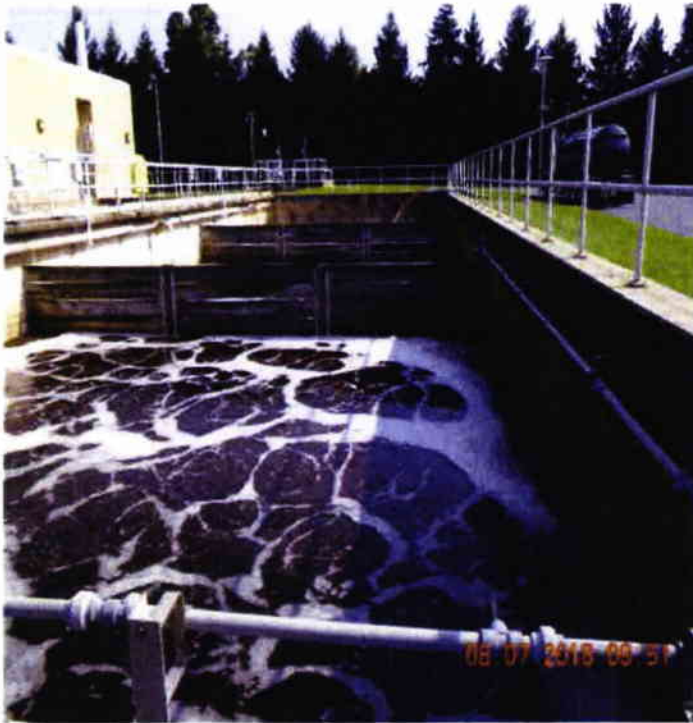
Laboratory



Overview Clarifiers & Diversion Box

EXTER TOWNSHIP

Site Visit 8-7-2018



Diversion Box



Diversion Box



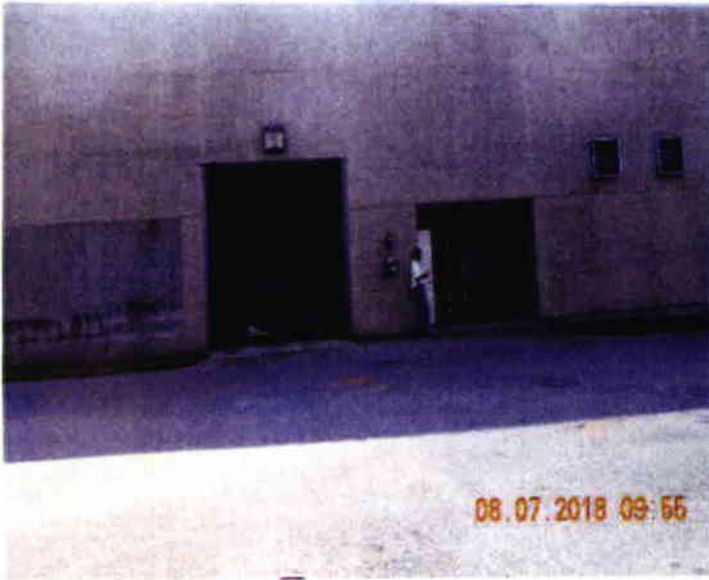
Flow Controls



Aeration

EXTER TOWNSHIP

Site Visit 8-7-2018



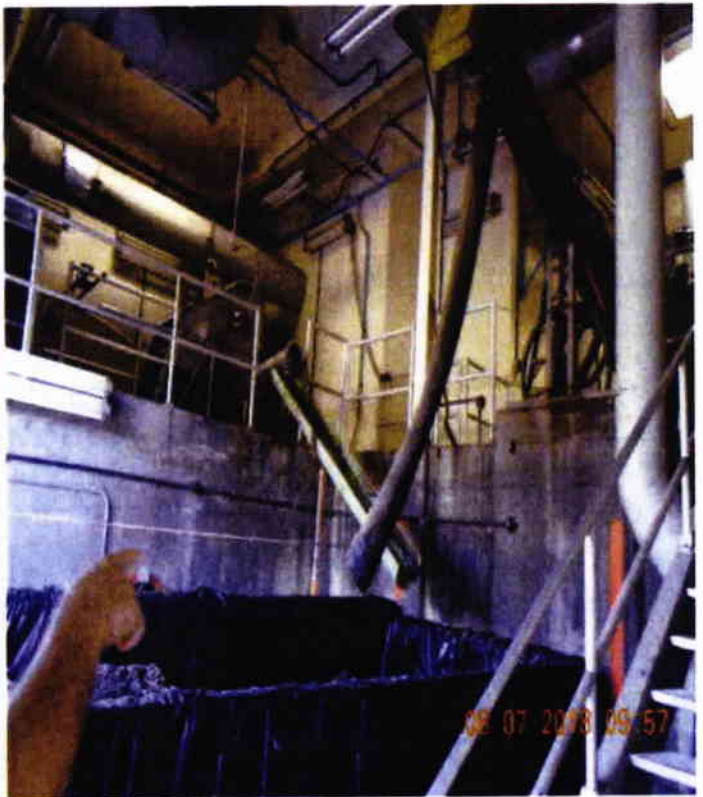
Sludge Dryer / Blower Bldg.



Blower Control Panel



Blowers



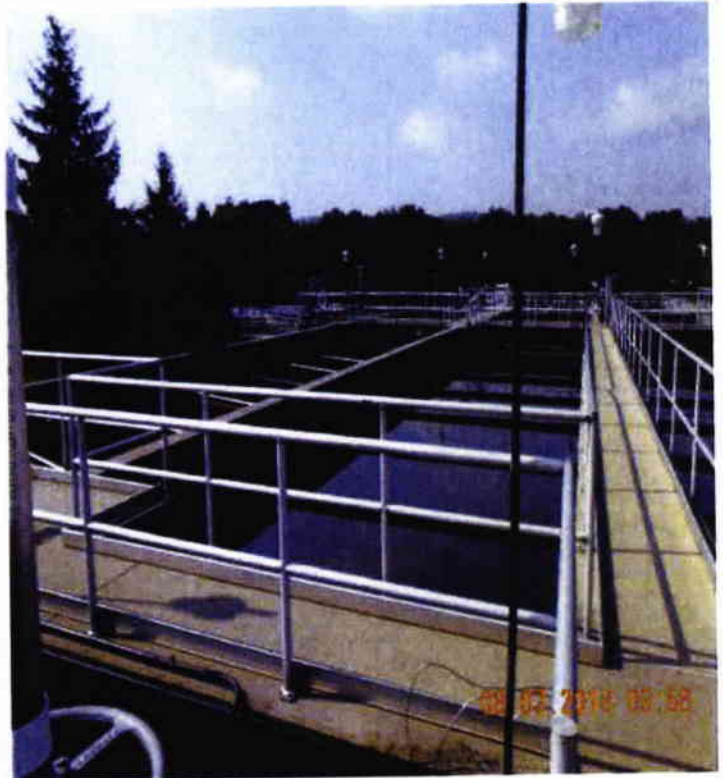
Sludge Dryer Equipment

EXTER TOWNSHIP

Site Visit 8-7-2018



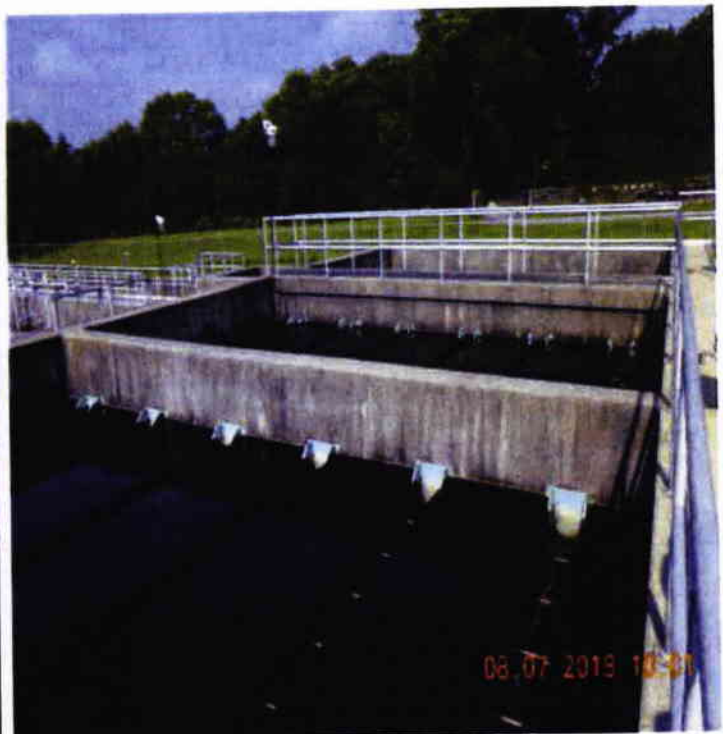
Sludge Dryers



Secondary Clarifiers



Secondary Clarifiers



Secondary Clarifiers

EXTER TOWNSHIP

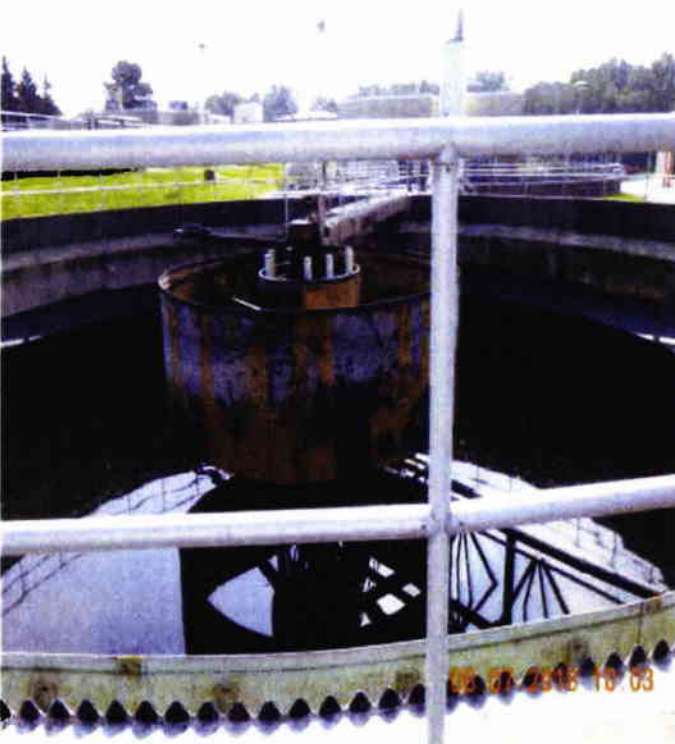
Site Visit 8-7-2018



Aeration



Clarifier



Clarifier



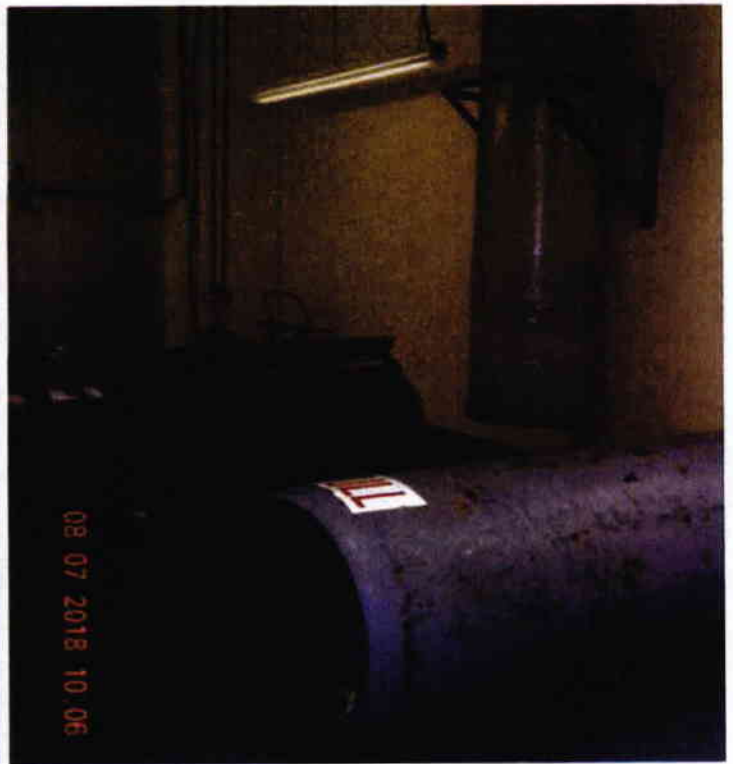
Chlorine Contact Tank

EXTER TOWNSHIP

Site Visit 8-7-2018



Chemical Room



Chemical Room



Sludge Drying Building



Chemical Building

EXTER TOWNSHIP

Site Visit 8-7-2018



Sludge Drying Equipment



Sludge Drying Equipment



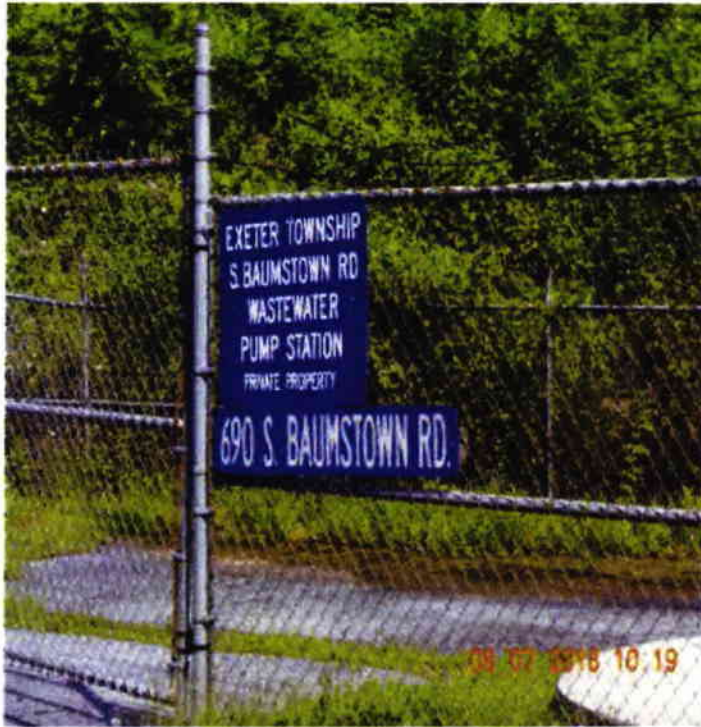
Sludge Drying Equipment



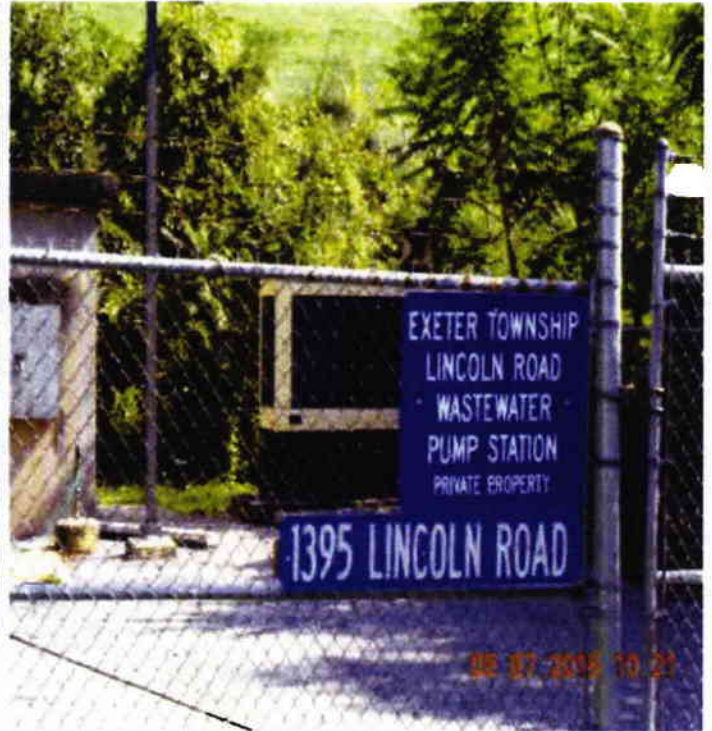
Baumstown Pump Station

EXETER TOWNSHIP

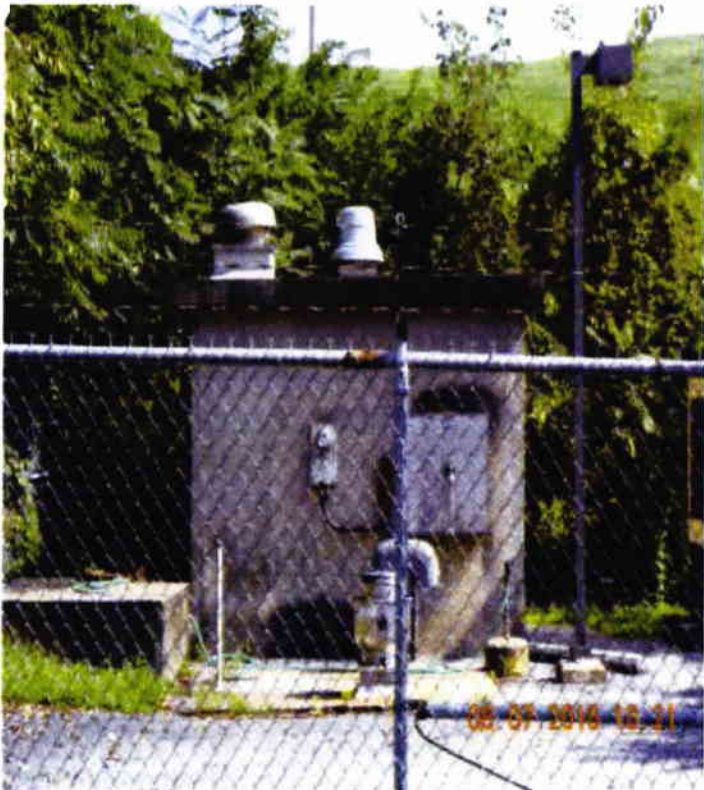
Site Visit 8-7-2018



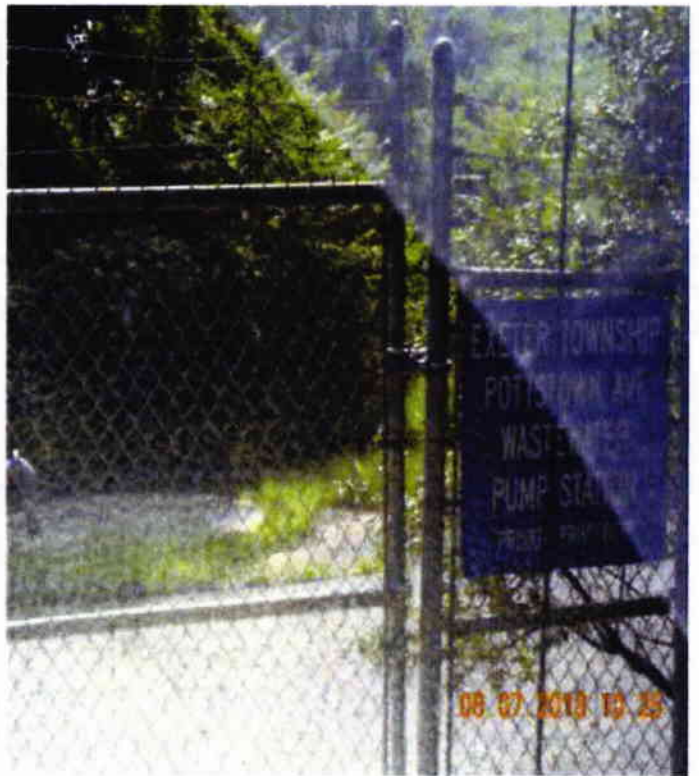
Baumstown Pump Station



Lincoln Pump Station



Pottstown Pump Station



Pottstown Pump Station

EXETER TOWNSHIP

Site Visit 8-7-2018



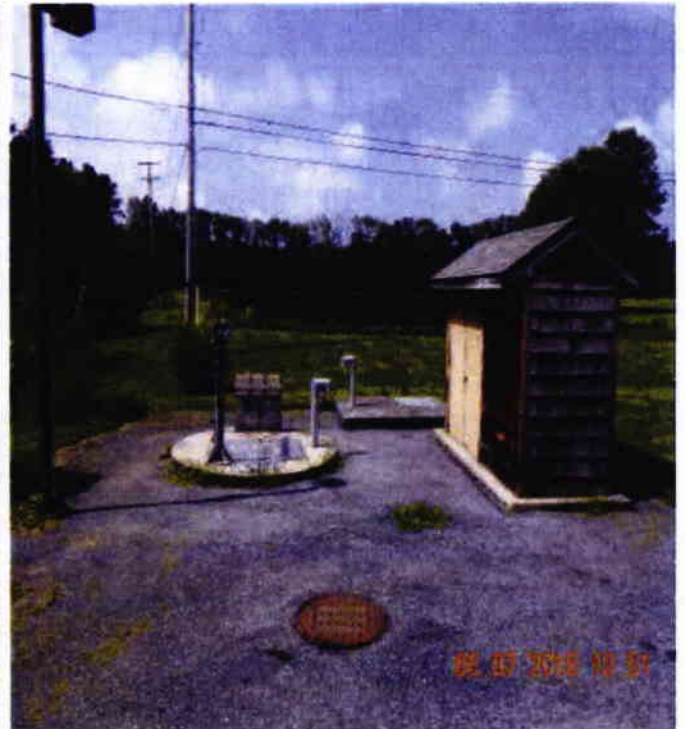
Buddies Place Pump Station



Buddies Place Pump Station



Pineland Pump Station



Glen Oley Farms Pump Station

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Herbert E. MacCombie, Jr., PE.
Consulting Engineers & Surveyors, Inc.
Exeter Township's Engineers Assessment
of the Exeter Sanitary Sewer System
As of January 30, 2018

AUS Consultants
Suite 201
8555 West Forest Home Avenue
Greenfield, Wisconsin 53228
Office Telephone: 414-529-5755
J. Weinert's Cell: 414-698-8371
J. Weinert's E-Mail: weinertj@auswest.net



**TOWNSHIP OF EXETER
BERKS COUNTY, PENNSYLVANIA**

**TOWNSHIP OF EXETER WASTEWATER SYSTEM
ENGINEERING ASSESSMENT AND
ORIGINAL COST**

August 2018



Prepared by:
GANNETT FLEMING
VALUATION AND RATE CONSULTANTS, LC



Valley Forge, Pennsylvania

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- Appendix B - Process Flow Schematic Diagram of the West WWTP
- Appendix C - Hydraulic and Organic Loadings
- Appendix D - Summary of Inventory by NARUC Account Number
- Appendix E - Inventory by Year Installed and NARUC Account Number
- Appendix F - The NARUC Wastewater Systems Account Numbers
- Appendix G - Operation and Maintenance Expenses
- Appendix H - The Township's Projected Future Capital Projects

PURPOSE OF REPORT

The purpose of this report is to provide an “assessment of the tangible assets of the selling utility” (“engineering assessment”) per the requirements of Pennsylvania Act 12 of 2016 (“Act 12”) and as further required by the Final Implementation Order entered by the Public Utility Commission at Docket No. M-2016- 2543193.

The engineering assessment follows the practices and procedures of the Public Utility Commission and the National Association of Regulatory Utility Commissioners (“NARUC”) Systems of Accounts and provides an inventory list of the used and useful utility plant assets (including land and land rights) to be transferred compiled by year and account. Any utility plant held for future use is identified separately. The inventoried assets were assigned an account number that conforms to the NARUC System of Accounts for wastewater systems.

The report preparation process included meeting with key Exeter Township representatives to identify and confirm specific information needed to support our assessment and to prepare this report. The Engineer’s inventory of assets was determined using Exeter Township’s records, project engineering costs and unit costs typical of other wastewater utilities in the region.

The engineering assessment report describes the used and useful utility plant assets to be transferred, provides an inventory compiled by year and account of the used and useful utility plant assets to be transferred, provides information on permitted discharges, operating records, operation and maintenance expenses, and provides projections for the future capital projects.

The results of the inventory established that the original cost of the used and useful utility plant assets to be transferred is \$68,404,345 as of April 30, 2018.

DESCRIPTION OF SYSTEM

The Exeter Township (“Township”) is located within the Reading Metropolitan Area in the south central section of Berks County, Pennsylvania, about 1 ½ miles east of the City of Reading. The Township consists of 24.1 square miles and is bounded by the Townships of Alsace, Amity, Cumru, Lower Alsace, Oley and Robeson; by the Boroughs of Birdsboro, Mount Penn and St. Lawrence; and by the Schuylkill River.

The Township owns and operates a wastewater system consisting of wastewater treatment facilities, gravity mains, force mains, pump houses, associated infrastructure and appurtenances, and related land and land rights (“Wastewater System”). The Wastewater System serves Township, St. Lawrence Borough, the Shady Lane Estates area of Alsace Township, and a small portion of Lower Alsace Township.

A map of the Wastewater System’s service area is contained in Appendix A.

WASTEWATER TREATMENT PLANT

The Township Wastewater Treatment Plant (“WWTP”) operates under National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026972. The WWTP treats wastewater originating from Township, St. Lawrence Borough, and small portions of Alsace Township and Lower Alsace Township in Berks County and consists of two (2) separate treatment flow trains, the East WWTP and the West WWTP. The East WWTP is used exclusively for the equalization of high-strength residual waste, as needed. The West WWTP consists of the Main Pumping Station, Headworks Building, four (4) Primary Clarifiers, three (3) 1st Stage Aeration Tanks, two (2) 2nd Stage Aeration Tanks, four (4) Final Clarifiers, and two (2) Chlorine Contact Tanks.

A process flow schematic diagram of the West WWTP is provided in Appendix B.

The WWTP (combined East and West treatment trains) is currently permitted for an annual average daily flow capacity of 7.10 million gallons per day (mgd) and a maximum month average daily flow capacity of 9.63 mgd. Additionally, the WWTP (combined East and West treatment trains) is permitted for a maximum month organic loading capacity of 20,289 pounds of BOD₅ per day (lbs. BOD₅/day). The West WWTP has a maximum month flow capacity of 8.43 mgd and a maximum month organic loading capacity of 17,739 lbs. BOD/day. A summary of the hydraulic and organic loading capacities of each treatment train is summarized below.

	Hydraulic Capacity		Organic Capacity
	Annual Average (mgd)	Maximum Month (mgd)	Maximum Month (lbs. BOD/day)
East WWTP	1.20	1.20	2,550
West WWTP	5.90	8.43	17,739
Combined	7.10	9.63	20,289

Hydraulic and organic loadings from 2013 through 2017 and for a 5-year projection period, 2018 to 2022 are presented in Appendix C.

Solids production and handling occurs in several stages. Raw sludge from the Primary Clarifiers is pumped directly to one of the two (2) Primary Anaerobic Digesters. Waste Activated Sludge from the biological system is gravity thickened before also being pumped to one of the two (2) Primary Anaerobic Digesters. After digestion, the stabilized biosolids are transferred to an aerated Sludge Holding Tank before being dewatered by one of two (2) Centrifuges. A Sludge Dryer (“Biosolids Drying Facility”) provides drying of dewatered biosolids. Dried biosolids are disposed of at a landfill.

The Biosolids Drying Facility reduces operating costs for the Wastewater System, and, at the same time, creates the opportunity to convert a waste product into fertilizer or an energy source.

The Wastewater System's sludge averages approximately 24% solid and 76% water. By using a dryer, the sludge becomes approximately 94% solid and 6% water. Using this process, only 1/5th of the amount of dewatered sludge has to be disposed of for approximately 20% of the disposal cost, or at no cost at all as a result of local farmers taking and using byproduct from the WWTP in farming operations. The biosolids meet the most stringent trace element limits, Class A pathogen, and vector reduction standards set forth by the Pennsylvania Department of Environmental Protection.

The Wastewater System continues operation of an USEPA-approved Industrial Pretreatment Program. Five (5) significant industrial users are connected to the system, of which two (2) are considered categorical industrial users by definition:

- BFK Corporation
- Godiva Chocolates
- FR&S / Pioneer Crossing Landfill
- SFS Intek (Categorical Industrial User)
- Arkema, Inc. (Categorical Industrial User)

All permitted industrial users are inspected and sampled, and all have submitted the required self-monitoring reports under the terms of their industrial discharge permits. The Township's 2017 Pretreatment Annual Report indicated that there were no industrial discharge violations or significant non-compliances during the year.

The Wastewater System routinely receives hauled leachate from several landfills, assorted commercial and industrial waste, residential septage, grease, and sludge that is delivered to the WWTP by multiple contract haulers. Hauled waste is discharged from the tanker trucks at several customized discharge locations throughout the WWTP. Grease is discharged into the Primary Clarifier scum pit and pumped directly to the Primary Anaerobic Digester.

COLLECTION SYSTEM

The Wastewater System's collection system collects domestic wastes and industrial wastes through 123 miles of gravity sewers and convey the wastes to the WWTP. In addition, six (6) pumping stations convey less than 3% of the total collection system flow to the WWTP. Township personnel are responsible for operation and maintenance of the WWTP, as well as the Wastewater System's collection system and pumping stations. Collection system maintenance consists of regular flushing of main lines, maintenance of rights-of-way, and repair and replacement of sewer lines, as needed. The Wastewater System's collection system is considered to be in satisfactory condition. Repair and replacement of damaged main lines and manholes is performed in a timely manner.

The Wastewater System also provides service to St. Lawrence Borough and a portion Lower Alsace and Alsace Townships under Inter-municipal Agreements. Areas included under agreement are the Borough of St. Lawrence, and small portions of the Alsace Township and Lower Alsace Township, all located in Berks County. Except for the billing agreement with Lower

Alsace Township, none of the current Inter-municipal Agreements between the Township and St. Lawrence, Alsace Township, or Lower Alsace Township contain termination provisions

The St. Lawrence Borough collection system contains multiple connection points to the Wastewater System's collection system including a portion of Antietam Creek Trunk Sewer located within the Borough, and owned by the Borough. Shady Lane Estates in Alsace Township is connected the Wastewater System. Various properties within Lower Alsace Township connect to the Antietam Creek Trunk Sewer where it is located within Lower Alsace Township.

The Wastewater System's collection system is divided into three main drainage basins where waste is conveyed to the WWTP through the Schuylkill River, Heisters Creek and Antietam Creek Trunk Sewers. The Schuylkill River Trunk Sewer begins at the WWTP and continues along the southern border of the Township and the Schuylkill River, then turning north along East Neversink Road ending at S.R. 422. The Schuylkill River Trunk Sewer is 15-inches in diameter up to the connection point of the Antietam Creek Trunk Sewer where it is enlarged to 30-inches in diameter up to the WWTP.

The Heisters Creek Trunk Sewer begins at the WWTP and continues upstream along the Heisters Creek, where it branches to the collection system. The Heisters Creek Trunk Sewer ranges in diameter from 8-inches at its upper reaches to 16-inches at the connection point to the Schuylkill River Trunk Sewer.

The Antietam Creek Trunk Sewer begins at the Schuylkill River Trunk Sewer at the southern border of the Township and extends north through St. Lawrence Borough near Butter Lane. The Antietam Creek Trunk Sewer ranges in diameter from 12-inches at its upper reaches to 27-inches at the connection point to the Schuylkill River Trunk Sewer. St. Lawrence Borough and parts of Lower Alsace and Alsace Townships are served by the Antietam Creek Trunk Sewer and the WWTP.

The Wastewater System includes six (6) pumping stations within its collection system: Lincoln Road, Buddies Place, Pottstown Avenue, South Baumstown, Pineland Road, and Glen Oley. All six (6) pumping stations are maintained and inspected by WWTP operators and Township maintenance personnel on a regular basis. Pumping station inspections typically occur three (3) times per week, except at the Lincoln Road Pumping Station, which is checked daily. Cleaning, repairs, and routine maintenance items are performed regularly.

Inspection logs for various pieces of equipment are also posted at each pumping station. Preventative maintenance to the pumping stations in 2017 included flushing wet wells, exercising valves every three months and operating back-up generators, under load, according to manufacturer specifications.

A summary of the pumping stations' capacity and recent historical flow of each pumping station is summarized below.

Pumping Station	Rated Capacity (MGD)	Annual Average Daily Flow (MGD)					
		2012	2013	2014	2015	2016	2017
Lincoln Road	1.08	0.074	0.076	0.081	0.073	0.074	0.079
Buddies Place	0.206	0.007	0.009	0.009	0.008	0.007	0.006
Pottstown Ave	0.238	0.007	0.008	0.009	0.007	0.007	0.009
South Baumstown	0.242	0.009	0.009	0.010	0.010	0.010	0.010
Pineland Road	0.055	0.027	0.002	0.002	0.002	0.002	0.001
Glen Oley	0.308	0.006	0.006	0.007	0.006	0.007	0.008

WASTEWATER SYSTEM INVENTORY

The original cost of the Wastewater System's inventory/assets was determined from the Township's records, project engineering costs and unit costs typical of other wastewater utilities in the region. The inventory/assets list of was developed of the Wastewater System's used and useful utility plant assets (including land and land rights) to be transferred compiled by year and account. Any utility plant held for future use is identified separately. The assets were assigned an account number that conforms to the NARUC System of Accounts for wastewater systems.

The Wastewater System's inventory/assets, organized by NARUC account number, list is shown in Appendices D and E. The NARUC wastewater systems account numbers is shown in Appendix F.

The WWTP assets were field inspected, and if available, information was obtained from the Township's accounting records of capital improvements purchases, work orders, and the Township's Pennsylvania Act 57 of 2003 capital charges studies. The costs associated with pump stations and pumping equipment were determined by Township's accounting records of capital improvements purchases and standard construction costs of others, ENR Construction Index and site tours.

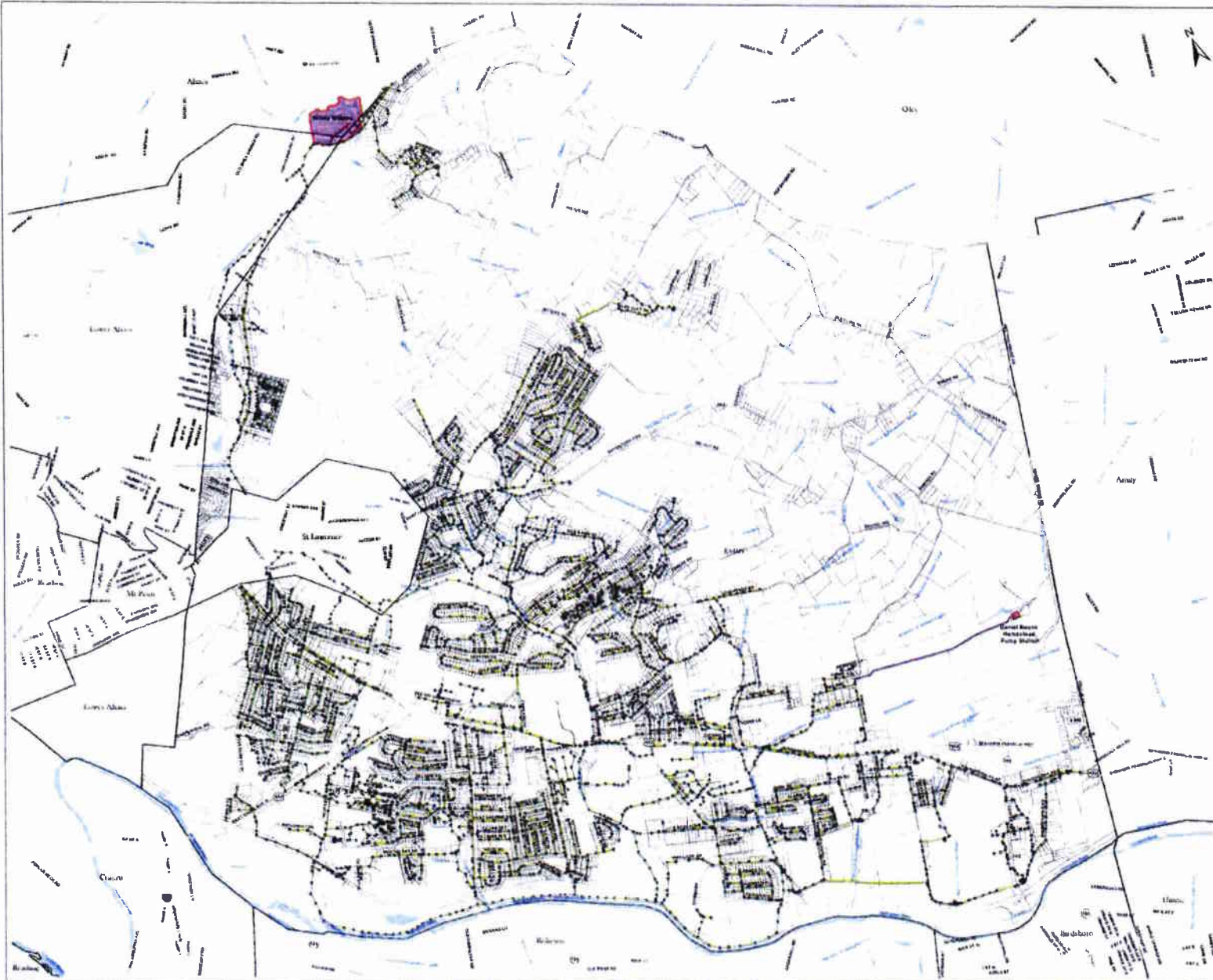
For mains and manholes, an inventory of the footage of mains by size and type material and the number of manholes from institutional knowledge, available records, maps, and the Township's electronic sewer index map using Geographical Information System ("GIS") mapping technology. The GIS data identifies and labels the manholes in the collection system, as well as the diameter of mains and material. Each customer has a service with these assets being assigned the same installation year as the related main. The unit costs were developed from typical unit costs experienced by other wastewater utilities in the region, published unit costs or experienced costs trended to the year of installation using ENR Construction Index. The inventory of the Wastewater System's land and land rights was obtained from deeds, right-of-way agreements, and the Township's GIS data.

The results of the inventory established that the original cost of the Wastewater System's utility plant in service as of April 30, 2018 is \$68,404,345 as shown on Appendix D. The inventory of the assets organized by NARUC account number and year installed is shown on Appendix E.

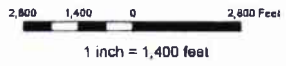
A summary of the Wastewater System's operation and maintenance expenses for 2015 and 2016 and the Wastewater System's 2018 budgeted operation and maintenance expenses are shown on Appendix G. The Township's projected future capital projects for the Waste System are shown on Appendix H.

Appendix A - Map of Service Area

Exeter Township
2017 Chapter 94
Sanitary System Map



- Legend**
- Pump Stations
 - Sanitary Manholes
 - Existing Sanitary Sewer
 - Proposed Sanitary Sewer Extension
 - State Roads
 - Local Roads
 - Streams
 - Water
 - Parcel
 - Municipal
 - Proposed Construction Area



EXETER TOWNSHIP
 2017 CHAPTER 94 SANITARY SYSTEM MAP
 EXETER TOWNSHIP, BERKSHIRE COUNTY, MASSACHUSETTS

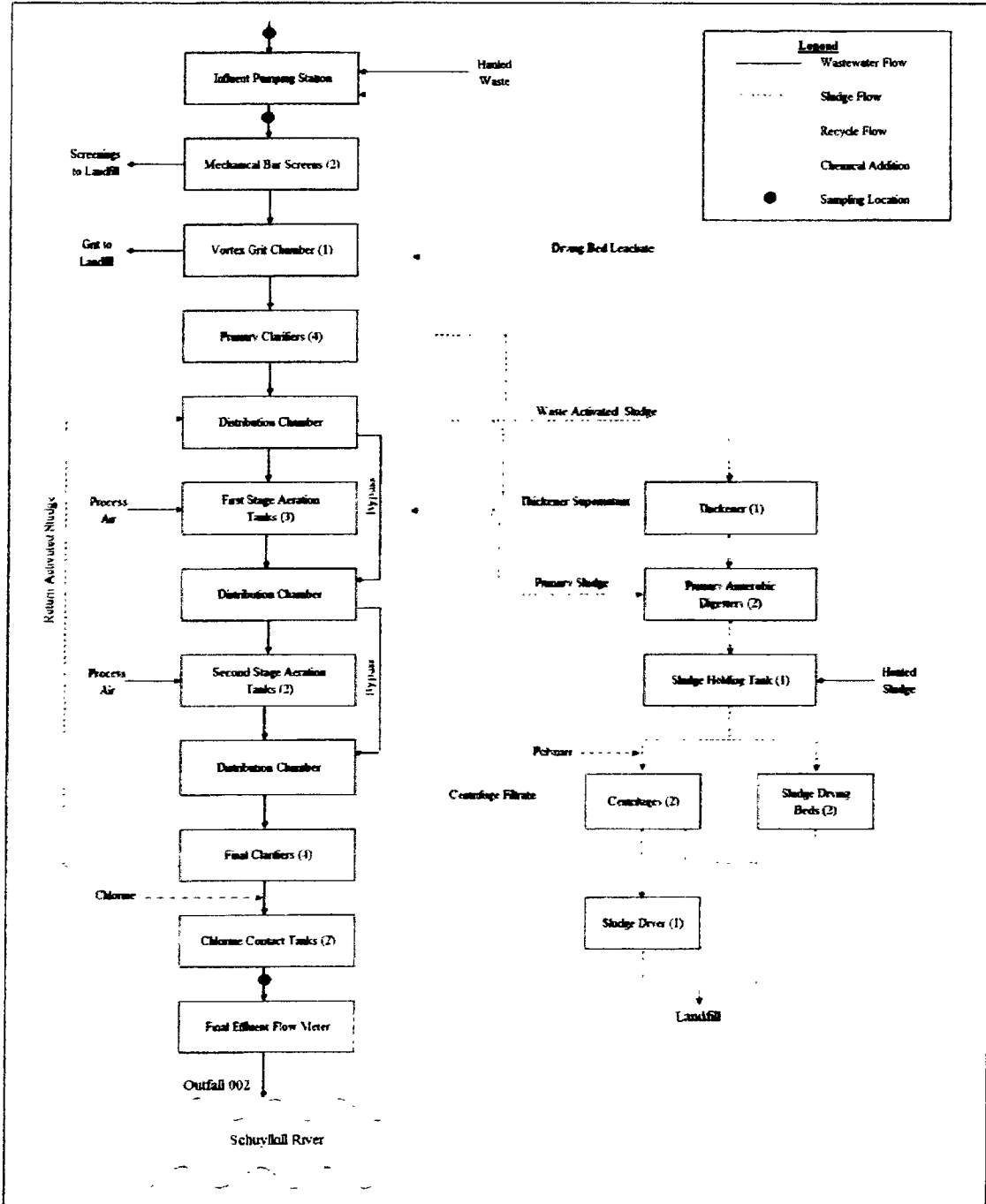
GVC
GREAT VALLEY CONSULTANTS
 15 COMMERCIAL DRIVE, HYDESBORO, MA 01450-1022
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ENGINEERS • ARCHITECTS • PLANNERS • CONSULTANTS • SURVEYORS

DRAWN BY: J. B. LEE	DATE: 1/16
CHECKED BY: J. B. LEE	DATE: 1/16
PROJECT NO.: 17-001	DRAWING NO.: 17-001-001

Appendix B - Process Flow Schematic Diagram of the West WWTP

West Wastewater Treatment Plant Process Flow Schematic Diagram



Appendix C - Hydraulic and Organic Loadings



**PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants**

Reporting Year:

Facility Name:

Permit No.:

Persons/EDU:

Existing Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: lbs BOD5/day

Upgrade Planned in Next 5 Years? Year:

Upgrade Planned in Next 5 Years? Year:

Future Hydraulic Design Capacity: MGD

Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2013	2014	2015	2016	2017
January	3.5	4.218	2.922	3.081	3.487
February	3.904	4.599	2.937	5.2	2.83
March	3.716	4.486	5.498	3.173	3.899
April	3.564	4.72	3.406	2.768	4.41
May	3.862	4.894	2.673	3.383	3.646
June	3.589	3.202	3.416	2.705	3.159
July	3.287	2.963	3.309	2.814	3.848
August	2.947	2.639	2.545	2.574	3.492
September	2.412	2.717	2.48	2.503	3.313
October	3.096	2.824	2.758	2.433	2.749
November	2.634	2.652	2.446	2.413	2.82
December	4.015	3.502	3.193	3.072	2.69

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2013	2014	2015	2016	2017
January	6,099	6,597	6,112	9,011	8,711
February	6,362	7,325	6,750	10,576	7,616
March	7,284	7,099	10,096	9,172	8,555
April	8,109	8,243	7,415	8,289	7,902
May	6,203	7,509	6,281	7,542	7,614
June	6,336	6,653	9,353	7,380	6,884
July	6,092	6,204	8,489	6,846	7,114
August	6,412	6,621	8,435	7,014	7,665
September	6,892	7,650	6,986	6,585	10,055
October	6,934	6,369	7,087	7,938	7,583
November	6,628	7,906	6,743	7,837	8,348
December	6,345	7,317	10,012	7,776	9,149

Annual Avg	3.377	3.601	3.132	3.008	3.351
Max 3-Mo Avg	3.728	4.7	3.947	3.818	3.95
Max : Avg Ratio	1.10	1.31	1.26	1.27	1.18
Existing EDUs	856.0	855.0	919.0	949.0	962.0
Flow/EDU (GPD)	3945.1	4068.9	3408.1	3189.7	3493.4
Flow/Capita (GPD)	1127.2	1162.6	973.7	905.6	995.2
Exist. Overload?	NO	NO	NO	NO	NO

Annual Avg	6,641	7,133	7,980	7,997	8,098
Max Mo Avg	8,109	8,243	10,096	10,576	10,055
Max : Avg Ratio	1.22	1.16	1.27	1.32	1.24
Existing EDUs	856	885	919	949	962
Load/EDU	7.759	8.080	8.683	8.427	8.418
Load/Capita	2.217	2.303	2.481	2.408	2.405
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2018	2019	2020	2021	2022
New EDUs	20.0	20.0	20.0	20.0	20.0
New EDU Flow	0.0723	0.0723	0.0723	0.0723	0.0723
Proj. Annual Avg	3.366	3.4393	3.5106	3.5829	3.6552
Proj. Max 3-Mo Avg	4.118	4.207	4.295	4.384	4.472
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2018	2019	2020	2021	2022
New EDUs	20	20	20	20	20
New EDU Load	165.386	165.386	165.386	165.386	165.386
Proj. Annual Avg	8,263	8,429	8,594	8,760	8,925
Proj. Max Avg	10,266	10,462	10,667	10,872	11,077
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2013	2014	2015	2016	2017
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Appendix D – Summary of Inventory by NARUC Account Number

EXETER TOWNSHIP WASTEWATER SYSTEM

**SUMMARY OF ANALYSIS OF ORIGINAL COST OF WASTEWATER
SYSTEM AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>ORIGINAL COST</u>
(1)	(2)	(3)
353.20	LAND AND LAND RIGHTS - COLLECTION	336,068.94
353.30	LAND AND LAND RIGHTS - PUMPING	63,244.16
353.40	LAND AND LAND RIGHTS - TREATMENT	735,535.35
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,000,471.00
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	36,457,669.12
355.30	POWER GENERATION EQUIPMENT - PUMPING	46,258.60
360.21	COLLECTION SEWERS - FORCE - MAINS	724,186.15
360.23	COLLECTION SEWERS - FORCE - MANHOLES	165,868.09
361.21	COLLECTION SEWERS - GRAVITY - MAINS	15,360,150.52
361.22	COLLECTION SEWERS - GRAVITY - MAIN RELINING	161,438.00
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	4,110,550.96
361.24	COLLECTION SEWERS - GRAVITY - MANHOLES REPAIRS	10,179.00
363.20	SERVICES TO CUSTOMERS	8,107,147.46
364.20	FLOW MEASURING DEVICES	28,200.34
365.20	FLOW MEASURING INSTALLATIONS	95,497.64
371.30	PUMPING EQUIPMENT	180,108.68
371.32	PUMPING EQUIPMENT - GRINDER	61,593.68
380.40	TREATMENT AND DISPOSAL EQUIPMENT	515,491.49
390.70	COMPUTER AND SOFTWARE	89,011.30
391.70	TRANSPORTATION EQUIPMENT	24,623.01
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	42,074.30
394.70	LABORATORY EQUIPMENT	80,810.59
396.70	COMMUNICATION EQUIPMENT	3,996.00
397.70	MISCELLANEOUS EQUIPMENT	4,170.76
	TOWNSHIP TOTAL	68,404,345.14

Appendix E – Inventory by Year Installed and NARUC Account Number

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
353 20	<u>LAND AND LAND RIGHTS - COLLECTION</u>				
	COLLECTION SYSTEM ROW	1966	81,716 LFT		\$37,581.96
	COLLECTION SYSTEM ROW	1970	1,144 LFT		\$630.28
	COLLECTION SYSTEM ROW	1975	8,794 LFT		\$6,715.66
	COLLECTION SYSTEM ROW	1980	758 LFT		\$1,069.89
	COLLECTION SYSTEM ROW	1985	7,017 LFT		\$4,481.18
	COLLECTION SYSTEM ROW	1987	2,088 LFT		\$1,818.17
	COLLECTION SYSTEM ROW	1990	6,592 LFT		\$18,634.90
	COLLECTION SYSTEM ROW	1992	306 LFT		\$867.41
	COLLECTION SYSTEM ROW	1995	55,392 LFT		\$126,808.41
	COLLECTION SYSTEM ROW	2000	3,444 LFT		\$15,285.86
	COLLECTION SYSTEM ROW	2005	4,920 LFT		\$76,604.25
	COLLECTION SYSTEM ROW	2010	3,452 LFT		\$45,449.75
	COLLECTION SYSTEM ROW	2012	11 LFT		\$121.22
	TOTAL LAND AND LAND RIGHTS - COLLECTION				<u>\$336,068.94</u>
353 30	<u>LAND AND LAND RIGHTS - PUMPING</u>				
	BUDDIES PLACE PUMP STATION	1992	0.101 ACRES		\$4,182.91
	LINCOLN ROAD PUMP STATION	1992	0.136 ACRES		\$5,617.62
	SOUTH BAUMSTOWN PUMP STATION	1992	0.073 ACRES		\$2,996.17
	POTTSTOWN AVENUE PUMP STATION	1993	0.910 ACRES		\$34,194.59
	PINELAND ROAD PUMP STATION	1996	1,307 SQ FT		\$92.99
	GLENN OLEY PUMP STATION	2006	0.063 ACRES		\$16,159.88
	TOTAL LAND AND LAND RIGHTS - PUMPING				<u>\$63,244.16</u>
353 40	<u>LAND AND LAND RIGHTS - TREATMENT</u>				
	WWTP - HOFFMAN PROPERTY	1965	16.975 ACRES		\$110,204.70
	WWTP - LINCOLN NURSERY PROPERTY	1967	5.370 ACRES		\$36,966.92
	WWTP - BRIGGS PROPERTY	1977	17.038 ACRES		\$53,000.00
	WWTP - AVM NURSERY PROPERTY	1984	51.630 ACRES		\$150,000.00
	WWTP - STANKIEWICZ PROPERTY	1993	0.624 ACRES		\$23,463.73
	WWTP - HAMPTON PROPERTY	1998	12.784 ACRES		\$325,000.00
	WWTP - BAKER PROPERTY	2003	0.209 ACRES		\$36,900.00
	TOTAL LAND AND LAND RIGHTS - TREATMENT				<u>\$735,535.35</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
354 30	<u>STRUCTURES AND IMPROVEMENTS - PUMPING</u>				
	LINCOLN ROAD - PUMPING STATION	1993			\$469,996.03
	BUDDIES PLACE - PUMPING STATION	1993			\$108,841.19
	POTTSTOWN AVENUE - PUMPING STATION	1993			\$108,841.19
	SOUTH BAUMSTOWN - PUMPING STATION	1993			\$108,841.19
	PINELAND ROAD - PUMPING STATION	1997			\$55,313.20
	GLEN OLEY - PUMPING STATION	2004			\$148,638.20
	TOTAL STRUCTURES AND IMPROVEMENTS - PUMPING				<u>\$1,000,471.00</u>
354 40	<u>STRUCTURES AND IMPROVEMENTS - TREATMENT</u>				
	WWTP 1967 ORIGINAL PROJECT COSTS	1967			\$2,353,885.64
	WWTP 1978 UPGRADE/EXPANSION COSTS	1978			\$4,885,804.76
	WWTP 1986 RERATE PROJECT	1986			\$91,897.59
	WWTP 1992 EXPANSION/UPGRADES COSTS	1992			\$23,110,970.29
	WWTP 2002 IMPROVEMENTS	2002			\$389,734.00
	BIOSOLIDS DRYER AND RELATED DEWATERING EQUIPMENT INSTALLED	2010			\$5,436,302.84
	GAS HEAT CONVERSIONS (GAS LINE TO GARAGE)	2013			\$10,935.00
	ROOF OPERATIONS BUILDING	2013			\$42,668.00
	PH III HEADWORKS UPGRADE	2014			\$19,880.00
	PH III HEADWORKS UPGRADE	2014			\$11,827.00
	NEW SEALS ROOF	2016			\$4,264.00
	WWTP GARAGE ROOF REPLACEMENT	2016			\$99,500.00
	TOTAL STRUCTURES AND IMPROVEMENTS - TREATMENT				<u>\$36,457,669.12</u>
355 30	<u>POWER GENERATION EQUIPMENT - PUMPING</u>				
	1993 MARATHON BRUSHLESS 680 FDF 4531 PORTABLE GENERATOR	1993			\$23,873.00
	ONAN EMERGENCY PORTABLE GENERATOR W/TRAILER MDL 100DGB16690BJ A940331845	1993			\$15,859.19
	125 K W GENERATOR DELCO AC MDL E5277	1993			\$6,526.41
	TOTAL POWER GENERATION EQUIPMENT - PUMPING				<u>\$46,258.60</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
360 21	<u>COLLECTION SEWERS - FORCE - MAINS</u>				
	PVC - 3-INCH	1990	466 FT	\$36.99	\$17,235.23
	DI - 6-INCH	1995	2,707 FT	\$31.77	\$86,013.91
	DI - 8-INCH	1995	6,338 FT	\$51.75	\$327,960.55
	PVC - 2-INCH	2005	211 FT	\$52.47	\$11,070.25
	PVC - 8-INCH	2005	4,104 FT	\$68.69	\$281,906.21
	TOTAL COLLECTION SEWERS - FORCE - MAINS		<u>13,826 FT</u>		<u>\$724,186.15</u>
360 23	<u>COLLECTION SEWERS - FORCE - MANHOLES</u>				
	MANHOLES	1990	2	\$2,022.04	\$4,044.08
	MANHOLES	1995	42	\$2,337.83	\$98,188.67
	MANHOLES	2005	20	\$3,181.77	\$63,635.34
	TOTAL COLLECTION SEWERS - FORCE - MANHOLES		<u>64</u>		<u>\$165,868.09</u>
361 21	<u>COLLECTION SEWERS - GRAVITY - MAINS</u>				
	ACP - 8-INCH	1966	2,928 FT	\$7.72	\$22,594.31
	VCP - 8-INCH	1966	224,980 FT	\$8.10	\$1,822,426.06
	DI - 8-INCH	1966	1,466 FT	\$11.94	\$17,499.45
	RCP - 8-INCH	1966	1,409 FT	\$5.86	\$8,258.92
	VCP - 10-INCH	1966	9,706 FT	\$6.98	\$67,721.46
	VCP - 12-INCH	1966	9,038 FT	\$8.97	\$81,114.37
	VCP - 15-INCH	1966	20,949 FT	\$8.40	\$176,072.80
	VCP - 18-INCH	1966	4,810 FT	\$12.03	\$57,860.37
	VCP - 20-INCH	1966	3,502 FT	\$10.49	\$36,751.83
	VCP - 21-INCH	1966	618 FT	\$11.22	\$6,936.34
	VCP - 27-INCH	1966	10,234 FT	\$17.13	\$175,303.97
	RCP - 30-INCH	1966	5,286 FT	\$18.64	\$98,530.65
	VCP - 8-INCH	1970	8,962 FT	\$11.15	\$99,929.53
	VCP - 8-INCH	1975	32,994 FT	\$16.73	\$552,034.58
	PVC - 8-INCH	1975	1,127 FT	\$17.54	\$19,769.28
	VCP - 8-INCH	1980	4,292 FT	\$26.70	\$114,578.50
	PVC - 8-INCH	1980	1,147 FT	\$21.39	\$24,537.71
	VCP - 10-INCH	1980	1,569 FT	\$28.85	\$45,272.27
	VCP - 8-INCH	1985	6,067 FT	\$33.34	\$202,269.86
	PVC - 8-INCH	1985	26,830 FT	\$30.44	\$816,573.23
	PVC - 10-INCH	1985	2,751 FT	\$30.31	\$83,371.79
	VCP - 8-INCH	1987	1,729 FT	\$37.63	\$65,065.70

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
	PVC - 8-INCH	1987	10,829 FT	\$31 81	\$344,515.04
	VCP - 8-INCH	1990	5,963 FT	\$40 40	\$240,879.18
	PVC - 8-INCH	1990	64,627 FT	\$35 75	\$2,310,437.70
	VCP - 8-INCH	1992	222 FT	\$42 55	\$9,445 86
	PVC - 8-INCH	1992	7,363 FT	\$38 76	\$285,425.68
	PVC - 2-INCH	1995	2,678 FT	\$18 52	\$49,603.62
	VCP - 8-INCH	1995	6,288 FT	\$39.97	\$251,321 82
	PVC - 8-INCH	1995	127,757 FT	\$35 92	\$4,589,612.10
	PVC - 10-INCH	1995	449 FT	\$35 54	\$15,958.32
	PVC - 12-INCH	1995	1,227 FT	\$28 99	\$35,566 14
	PVC - 15-INCH	1995	754 FT	\$49.95	\$37,664.68
	PVC - 8-INCH	2000	9,298 FT	\$40 86	\$379,942 51
	PVC - 8-INCH	2005	23,824 FT	\$53.69	\$1,279,091.45
	PVC - 8-INCH	2010	4,817 FT	\$46 60	\$224,452.48
	PVC - 8-INCH	2012	702 FT	\$73 33	\$51,478.96
	PVC - 12-INCH	2012	3,862 FT	\$170 97	\$660,282 00
	TOTAL COLLECTION SEWERS - GRAVITY - MAINS		<u>653,054 FT</u>		<u>\$15,360,150.52</u>
361.22	<u>COLLECTION SEWERS - GRAVITY - MAIN RELINING</u>				
	TRENCHLESS SEWER REHAB - SLIP LINE PROJECT	2008			\$148,625.00
	MR REHAB INC	2012			\$12,813.00
	TOTAL COLLECTION SEWERS - GRAVITY - MAIN RELINING				<u>\$161,438.00</u>
361.23	<u>COLLECTION SEWERS - GRAVITY - MANHOLES</u>				
	MANHOLES	1966	1,374	\$435 43	\$598,282.49
	MANHOLES	1970	41	\$590.12	\$24,194.85
	MANHOLES	1975	159	\$945 21	\$150,289.15
	MANHOLES	1980	32	\$1,383 21	\$44,262 72
	MANHOLES	1985	166	\$1,792 58	\$297,567 45
	MANHOLES	1987	59	\$1,882 74	\$111,081 54
	MANHOLES	1990	329	\$2,022 04	\$665,251 72
	MANHOLES	1992	36	\$2,130 15	\$76,685 46
	MANHOLES	1995	648	\$2,337 83	\$1,514,910 92
	MANHOLES	2000	43	\$2,658 31	\$114,307 32
	MANHOLES	2005	111	\$3,181 77	\$353,176 16
	MANHOLES	2010	23	\$3,759 92	\$86,478 18
	MANHOLES	2012	17	\$4,356 65	\$74,063 00
	TOTAL COLLECTION SEWERS - GRAVITY - MANHOLES		<u>3,038</u>		<u>\$4,110,550.96</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
361 24	<u>COLLECTION SEWERS - GRAVITY - MANHOLES REPAIRS</u>				
	MANHOLE REPAIRS	2015			\$10,179.00
	TOTAL COLLECTION SEWERS - GRAVITY - MANHOLES REPAIRS				<u>\$10,179.00</u>
363 20	<u>SERVICES TO CUSTOMERS</u>				
	SERVICES	1966	3,538	\$270.93	\$958,567.95
	SERVICES	1970	137	\$367.18	\$50,304.30
	SERVICES	1975	523	\$588.13	\$307,593.89
	SERVICES	1980	83	\$860.66	\$71,435.10
	SERVICES	1985	504	\$1,115.38	\$562,151.53
	SERVICES	1987	192	\$1,171.48	\$224,924.42
	SERVICES	1990	1,082	\$1,258.16	\$1,361,328.35
	SERVICES	1992	116	\$1,325.43	\$153,749.62
	SERVICES	1995	2,152	\$1,454.65	\$3,130,400.29
	SERVICES	2000	143	\$1,654.06	\$236,530.49
	SERVICES	2005	428	\$1,979.77	\$847,339.97
	SERVICES	2010	74	\$2,339.51	\$173,123.46
	SERVICES	2012	12	\$2,474.84	\$29,698.09
	TOTAL SERVICES TO CUSTOMERS		<u>8,984</u>		<u>\$8,107,147.46</u>
364 20	<u>FLOW MEASURING DEVICES</u>				
	METER @ WILDLIFE SANCTUARY - 8"	1991			\$3,672.99
	METER @ SOUTH OF PARK VIEW DRIVE - 8"	2006			\$5,888.17
	METER @ BINGAMAN STREET - 15"	2010			\$10,026.46
	METER @ OLEY TURNPIKE ROAD - 10"	2011			\$8,612.72
	TOTAL FLOW MEASURING DEVICES				<u>\$28,200.34</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
365.20	<u>FLOW MEASURING INSTALLATIONS</u>				
	CONCRETE METERING VAULT @ WILDLIFE SANCTUARY	1991			\$23,874.41
	CONCRETE METERING VAULT @ BINGAMAN STREET	1991			\$23,874.41
	CONCRETE METERING VAULT @ OLEY TURNPIKE ROAD	1991			\$23,874.41
	CONCRETE METERING VAULT @ SOUTH OF PARKVIEW DRIVE	1991			\$23,874.41
	TOTAL FLOW MEASURING INSTALLATIONS				<u>\$95,497.64</u>
371.30	<u>PUMPING EQUIPMENT</u>				
	LINCOLN ROAD - PUMP (DUPLEX)	1993			\$24,736.63
	BUDDIES PLACE - PUMP (DUPLEX)	1993			\$14,841.98
	POTTSTOWN A VENUE - PUMP (DUPLEX)	1993			\$14,841.98
	SOUTH BAUMSTOWN - PUMP (DUPLEX)	1993			\$14,841.98
	PINELAND ROAD - PUMP (DUPLEX)	1997			\$8,296.98
	GLEN OLEY - PUMP (DUPLEX)	2006			\$22,080.65
	1993 GORMAN RUPP SEWER PUMP W/TRAILER 1027794	1993			\$11,005.80
	PUMP SYSTEM-SEWER	2012			\$6,487.80
	REBUILD PUMP SHAFT	2012			\$3,520.00
	REBUILD PUMP SHAFT	2012			\$3,520.00
	REBUILD PUMP SHAFT	2012			\$3,520.00
	NEW DRIVE FOR RAW PUMPS (3 PUMPS)	2013			\$18,316.00
	NEW PUMP	2014			\$18,201.00
	PUMP POWER BOARD	2015			\$1,492.00
	PUMP -SEWER	2015			\$1,874.00
	PUMP INSTALLATION	2015			\$87.86
	BACK UP MOTOR RAW WASTEWATER PUMPS	2016			\$6,085.00
	TSURUMI CHOPPER PUMPS	2017			\$6,359.02
	TOTAL PUMPING EQUIPMENT				<u>\$180,108.68</u>
371.32	<u>PUMPING EQUIPMENT - GRINDER</u>				
	GRINDER PUMPS - RESIDENTIAL (18)	1993	18	\$2,137.25	\$38,470.41
	GRINDER PUMPS - COMMERCIAL (1)	2011	1	\$7,441.39	\$7,441.39
	GRINDER PUMPS - COMMERCIAL (1)	2012	1	\$7,636.65	\$7,636.65
	GRINDER PUMPS - COMMERCIAL (1)	2014	1	\$8,045.23	\$8,045.23
	TOTAL PUMPING EQUIPMENT - GRINDER		<u>21</u>		<u>\$61,593.68</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
380 40	<u>TREATMENT AND DISPOSAL EQUIPMENT</u>				
	REPLACEMENT CHAIN/CLARIFIER	2008			\$8,391.00
	ADV BIOSOLIDS	2012			\$150.97
	SLUDGE DRYER	2012			\$26,014.07
	TANK COMPRESSOR-SEWER	2012			\$3,845.00
	CARBON FOR AIR SCRUBBER	2013			\$14,820.00
	DEWATERING & DIGESTER	2013			\$5,645.00
	HOSE CONNECTORS	2013			\$77,279.64
	MUFFIN MONSTER PUMP/GRINDER (2)	2013			\$18,718.00
	PUMP CONTROL UPGRADE	2013			\$3,576.00
	SLUDGE DRYER	2013			\$11,204.00
	BLOWER SYSTEM	2014			\$4,280.00
	BLOWER/AERATION UPGRADE	2014			\$11,928.00
	DEMobilIZATION OF DIGESTER	2014			\$4,000.00
	DEWATER/DISPOSAL DIGESTER	2014			\$48,050.00
	DEWATER/DISPOSAL DIGESTER	2014			\$11,953.00
	DEWATER/DISPOSAL DIGESTER	2014			\$55,590.00
	DIGESTER CLEANING	2014			\$37,962.00
	DLC UPGRADE	2014			\$14,225.00
	DLC UPGRADE	2014			\$37,793.30
	MOBILIZATION OF DIGESTER	2014			\$5,750.00
	SLUDGE DRYER	2014			\$3,232.50
	ACTUATOR/VALVES AERATION TANKS	2015			\$38,425.00
	ACTUATOR/VALVES AERATION TANKS	2015			\$5,320.00
	AIR FLOW METER	2015			\$3,608.00
	SANDBLASTING #1 TANK	2015			\$3,889.56
	SANDBLASTING SEWER	2015			\$5,059.95
	BLOWER FOR DIGESTER	2016			\$4,417.00
	BLOWER/AERATION CONTROL	2016			\$2,386.00
	COLLECTOR CHAIN PRIMARY	2016			\$9,191.00
	DRYER PARTS	2016			\$9,750.00
	DRYER PARTS	2016			\$10,175.00
	COLLECTOR CHAIN AND EQUIPMENT	2017			\$9,190.50
	WHEEL, INLET CONES & DRIVE SHAFT	2017			\$6,899.00
	FLAME BANK ASSEMBLY	2017			\$2,773.00
	TOTAL TREATMENT AND DISPOSAL EQUIPMENT				<u>\$515,491.49</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
390 70	<u>COMPUTER AND SOFTWARE</u>				
	LENOVO COMPUTER	2011			\$2,332.00
	COMPUTER - LENOVO	2012			\$1,578.00
	SCADA UPGRADE	2012			\$13,820.85
	ALARM SOFTWARE	2013			\$2,380.00
	COMPUTER	2013			\$2,290.45
	SCADA UPGRADE	2013			\$9,900.00
	SCADA UPDATE	2014			\$7,952.00
	SCADA UPGRADE	2014			\$23,856.00
	COMPUTER	2015			\$1,512.00
	SCADA UPGRADE	2015			\$3,976.00
	SOFTWARE - HAULED WASTE	2015			\$6,595.00
	COMPUTER - ETHERNET SWITCH	2016			\$89.00
	COMPUTER - NEW SERVER	2016			\$5,350.00
	SOFTWARE - SEPTAGE PROGRAM	2016			\$7,380.00
	TOTAL COMPUTER AND SOFTWARE				<u>\$89,011.30</u>
391 70	<u>TRANSPORTATION EQUIPMENT</u>				
	2001 - FORD ECONOLINE - E150 W/RADIO - VAN 1FTRE142X1HB34687	2001			\$21,441.01
	FUEL SYSTEM REPLACEMENT	2014			\$3,182.00
	TOTAL TRANSPORTATION EQUIPMENT				<u>\$24,623.01</u>
393 70	<u>TOOLS, SHOP AND GARAGE EQUIPMENT</u>				
	TWO (2) MSA MODEL 401 SCBA'S	1997			\$2,134.65
	TWO (2) HOMELITE TRASH PUMPS	2000			\$1,680.67
	RESCUE SYSTEM, TRIPOD, HARNESSSES	2004			\$1,621.78
	CHLORINE LEAK REPAIR KIT	2006			\$1,099.71
	TARGET CONCRETE SAW	2006			\$5,075.56
	TWO (2) MSA HIP AIR SCBA'S	2006			\$2,711.05
	GAS MASS FLOWMETER	2012			\$4,995.67
	PORTABLE SAMPLER	2013			\$7,225.26
	SAW/CART	2013			\$1,587.70
	SPECTROPHOMETER	2013			\$3,951.25
	PRO PIPE LOCATOR	2014			\$1,930.00
	PRO PIPER	2014			\$1,980.00
	4" SUBARU TRASH PUMP	2015			\$1,874.00
	FUEL DISPENSER TANK MONITOR	2015			\$3,272.00
	HOSE SEWER	2015			\$661.00
	HOSE SEWER	2015			\$274.00
	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT				<u>\$42,074.30</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
394.70	<u>LABORATORY EQUIPMENT</u>				
	CENTRIFUGE	2002			\$2,314.89
	HONEYWELL LUMIDOR MICROMAX PRO O2/ GAS METER 16512	2002			\$992.87
	FISHER INCUBATOR 232450-1022	2003			\$3,318.35
	TWO (2) FISHER LABORATORY OVEN 802N0010 / 611251-101	2003			\$2,807.84
	DENVER INSTRUMENT IR 35 HEATED SCALE	2004			\$2,127.15
	METLAR BALANCE MDL H 31 AR 729375	2004			\$2,978.01
	HACH DR 2500 SPECTROPHOTOMETER	2005			\$1,871.89
	TWO (2) MICROSCOPES	2005			\$3,195.82
	ACCUMET PH METER 94101348	2006			\$1,518.42
	HOSHIZAKI ICE MACHINE KM-150BAF / L04650B	2006			\$3,137.93
	MILLIPORE UV STERILIZER	2006			\$1,607.74
	TWO (2) SIGMA PORTABLE WASTEWATER SAMPLER	2006			\$3,751.38
	HACH DR 3900 SPECTROPHOTOMETER	2007			\$3,408.39
	LAB REFRIGERATOR 125052501140917	2007			\$2,196.51
	MILLIPORE INCUBATOR	2007			\$1,345.42
	TWO (2) YSI MODEL 58D D.O METER 01H0366 / 90F017203	2007			\$2,429.34
	CAMERA/CABLE	2008			\$8,800.00
	GAS METER	2008			\$2,478.00
	LABORATORY DISHWASHER	2008			\$7,565.64
	NEW SAMPLER	2011			\$5,173.00
	GLS SAMPLER	2014			\$2,367.00
	INCUBATOR	2014			\$3,574.00
	NEW PUSH CAM	2014			\$9,570.00
	GLS SAMPLER	2015			\$2,281.00
	TOTAL LABORATORY EQUIPMENT				<u>\$80,810.59</u>
396.70	<u>COMMUNICATION EQUIPMENT</u>				
	RADIOS (BASE STATION)	2011			\$3,996.00
	TOTAL COMMUNICATION EQUIPMENT				<u>\$3,996.00</u>

**EXETER TOWNSHIP WASTEWATER SYSTEM
ORIGINAL COST INVENTORY AS OF APRIL 30, 2018**

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST</u>
397.70	<u>MISCELLANEOUS EQUIPMENT</u>				
	FURNACE	2002			\$911.76
	WASHER/DRYER	2008			\$993.00
	REFRIGERATOR	2014			\$2,266.00
	TOTAL MISCELLANEOUS EQUIPMENT				<u>\$4,170.76</u>
TOTAL WASTEWATER SYSTEM					<u><u>\$68,484,345.14</u></u>

Appendix F - The NARUC Wastewater Systems Account Numbers

Appendix G - Operation and Maintenance Expenses

Business-type activities increased Exeter Township's net position by \$533,455 in 2016.

	Sewer		Country Club		Totals	
	2016	2015	2016	2015	2016	2015
Operating Revenues:						
Sewer charges	\$ 5,421,493	\$ 5,178,802	\$ -	\$ -	\$ 5,421,493	\$ 5,178,802
Tapping fees	31,420	38,140	-	-	31,420	38,140
Charges for services	-	-	775,066	1,815,251	775,066	1,815,251
Intergovernmental revenue	-	4,697	-	-	-	4,697
Lease rental revenue	-	-	301,219	116,739	301,219	116,739
Miscellaneous	88,565	131,913	-	-	88,565	131,913
Total Operating Revenues	5,541,478	5,353,552	1,076,285	1,931,990	6,617,763	7,285,542
Operating Expenditures:						
Wastewater collection and treatment	2,916,637	3,021,637	-	-	2,916,637	3,021,637
Culture and recreation expenses	-	-	730,900	2,042,902	730,900	2,042,902
Total expenditures	2,916,637	3,021,637	730,900	2,042,902	3,647,537	5,064,539
Operating Income	2,624,841	2,331,915	345,385	(110,912)	2,970,226	2,221,003
Nonoperating Revenues (Expenses)						
Interest income	377,652	365,891	1,115	1,387	378,767	367,278
Debt service						
Interest	(787,905)	(872,863)	-	-	(787,905)	(872,863)
Fiscal agent fees	(1,443)	(1,443)	-	-	(1,443)	(1,443)
Total Nonoperating Revenues (Expenses)	(411,696)	(508,415)	1,115	1,387	(410,581)	(507,028)
Income before Other Financing Sources (Uses)	2,213,145	1,823,500	346,500	(109,525)	2,559,645	1,713,975
Other Financing Sources (Uses)						
Transfers In	-	-	20,673	-	20,673	-
Transfers out	(1,729,971)	(242,622)	(316,892)	(285,406)	(2,046,863)	(528,028)
Total Other Financing Sources (Uses)	(1,729,971)	(242,622)	(296,219)	(285,406)	(2,026,190)	(528,028)
Change in Net Position	483,174	1,580,878	50,281	(394,931)	533,455	1,185,947
Fund balances at beginning of year	(11,228,202)	(12,809,081)	220,410	615,342	(11,007,792)	(12,193,739)
Fund balances at end of year	\$(10,745,028)	\$(11,228,203)	\$ 270,691	\$ 220,411	\$(10,474,337)	\$(11,007,792)

A FINANCIAL ANALYSIS OF THE TOWNSHIP'S FUNDS

In reviewing individual funds of the Township, certain funds experienced significant changes to be considered in analyzing the Township's funds:

- Capital Projects Fund – During 2016, \$76,355 was expended to replace windows in the Township building, District Justice building, and Dunn Community Center. \$66,921 was expended for pump replacements at the Sewer Treatment facility.
- Apparatus Fund - \$97,688 was expended to refurbish a 1995 Seagrave Aerial.
- Park Improvement Fund - \$9,818 was expended for skate park equipment at Pineland Park. \$6,069 was expended for field repairs and other improvements at Community Park.

2018 BUDGET
EXETER TOWNSHIP
FUND 08 SEWER

Organization/Object	2017 Budget	2017 Projected	2018 Budget	% Change	2018 Outlook	% Change	2020 Outlook	% Change	2021 Outlook	% Change	2022 Outlook
08 - Sewer Fund	\$375,000.00	\$186,576.49	\$188,423.51	-49.8%	\$0.00	-100.0%	\$0.00	N/A	\$0.00	N/A	\$0.00
34100 - Interest	\$375,000.00	\$186,576.49	\$188,423.51	-49.8%	\$0.00	-100.0%	\$0.00	N/A	\$0.00	N/A	\$0.00
08600571 - WWT Administration	\$6,586,733.00	\$6,244,826.39	\$6,593,248.00	0.1%	\$6,593,248.00	0.0%	\$6,593,248.00	0.0%	\$6,593,248.00	0.0%	\$6,593,248.00
31901 - Penalties & Interest CY	\$90,000.00	\$90,000.00	\$90,000.00	0.0%	\$90,000.00	0.0%	\$90,000.00	0.0%	\$90,000.00	0.0%	\$90,000.00
36401 - Sewer Rents	\$5,141,248.00	\$4,500,000.00	\$5,141,248.00	0.0%	\$5,141,248.00	0.0%	\$5,141,248.00	0.0%	\$5,141,248.00	0.0%	\$5,141,248.00
36402 - St Lawrence Treatment Fee	\$117,312.00	\$130,000.00	\$125,000.00	6.6%	\$125,000.00	0.0%	\$125,000.00	0.0%	\$125,000.00	0.0%	\$125,000.00
36403 - Industrial Surcharge	\$400,000.00	\$400,000.00	\$400,000.00	0.0%	\$400,000.00	0.0%	\$400,000.00	0.0%	\$400,000.00	0.0%	\$400,000.00
36404 - Septage/Sludge Receiving	\$701,173.00	\$1,000,000.00	\$700,000.00	-0.2%	\$700,000.00	0.0%	\$700,000.00	0.0%	\$700,000.00	0.0%	\$700,000.00
36405 - Misc Service Charges	\$15,000.00	\$15,000.00	\$15,000.00	0.0%	\$15,000.00	0.0%	\$15,000.00	0.0%	\$15,000.00	0.0%	\$15,000.00
38010 - Miscellaneous	\$0.00	\$326.39	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
38011 - Sewer Certification Fees	\$13,000.00	\$13,000.00	\$13,000.00	0.0%	\$13,000.00	0.0%	\$13,000.00	0.0%	\$13,000.00	0.0%	\$13,000.00
38012 - Sewer Tapping Fees	\$5,000.00	\$2,500.00	\$5,000.00	0.0%	\$5,000.00	0.0%	\$5,000.00	0.0%	\$5,000.00	0.0%	\$5,000.00
38013 - St Lawrence Addl Rent	\$0.00	\$0.00	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
38014 - Sewer Capacity Fees	\$50,000.00	\$40,000.00	\$50,000.00	0.0%	\$50,000.00	0.0%	\$50,000.00	0.0%	\$50,000.00	0.0%	\$50,000.00
39311 - St Lawrence Bond Revenue	\$54,000.00	\$54,000.00	\$54,000.00	0.0%	\$54,000.00	0.0%	\$54,000.00	0.0%	\$54,000.00	0.0%	\$54,000.00
TOTAL REVENUE	\$6,961,733.00	\$6,431,402.88	\$6,781,671.51	-2.6%	\$6,593,248.00	-2.8%	\$6,593,248.00	0.0%	\$6,593,248.00	0.0%	\$6,593,248.00
08600571 - WWT Administration	\$3,851,747.50	\$4,582,331.19	\$4,300,696.31	11.7%	\$4,329,719.56	0.7%	\$4,359,717.23	0.7%	\$4,390,723.93	0.7%	\$4,422,775.58
41140 - Wages	\$415,722.00	\$483,841.14	\$493,721.49	18.8%	\$508,533.13	3.0%	\$523,789.13	3.0%	\$539,502.80	3.0%	\$555,687.89
41920 - FICA	\$31,802.73	\$37,013.85	\$37,769.69	18.8%	\$38,902.78	3.0%	\$40,069.86	3.0%	\$41,271.96	3.0%	\$42,510.12
41940 - Unemployment Compensation	\$4,157.22	\$2,488.12	\$1,520.00	-63.4%	\$1,565.60	3.0%	\$1,612.57	3.0%	\$1,660.95	3.0%	\$1,710.77
41950 - Workers Comp Insurance	\$4,157.22	\$2,790.44	\$2,708.97	-34.8%	\$2,790.24	3.0%	\$2,873.95	3.0%	\$2,960.16	3.0%	\$3,048.97
41960 - Health & Hosp Insurance	\$251,851.60	\$109,207.56	\$121,365.30	-51.8%	\$125,006.26	3.0%	\$128,756.45	3.0%	\$132,619.14	3.0%	\$136,597.71
41961 - Union Health & Welfare	\$0.00	\$20,409.10	\$67,801.35	N/A	\$69,835.39	3.0%	\$71,930.45	3.0%	\$74,088.37	3.0%	\$76,311.02
41970 - Non-Uniformed Pension	\$58,157.73	\$6,500.00	\$24,961.54	-57.1%	\$25,710.39	3.0%	\$26,481.70	3.0%	\$27,276.15	3.0%	\$28,094.43
41971 - Union Pension	\$0.00	\$5,500.00	\$10,935.00	N/A	\$11,263.05	3.0%	\$11,600.94	3.0%	\$11,948.97	3.0%	\$12,307.44
41980 - LT Disability Insurance	\$1,000.00	\$409.58	\$471.00	-52.9%	\$485.13	3.0%	\$499.68	3.0%	\$514.67	3.0%	\$530.11
41985 - Life Insurance	\$1,000.00	\$792.88	\$912.42	-8.8%	\$939.79	3.0%	\$967.99	3.0%	\$997.03	3.0%	\$1,026.94
41990 - Training	\$0.00	\$9,000.00	\$9,000.00	N/A	\$9,450.00	5.0%	\$9,922.50	5.0%	\$10,418.63	5.0%	\$10,939.56
42100 - Office Supplies	\$24,000.00	\$4,000.00	\$4,000.00	-83.3%	\$4,200.00	5.0%	\$4,410.00	5.0%	\$4,630.50	5.0%	\$4,862.03
42160 - Other Supplies	\$0.00	\$18,000.00	\$18,000.00	N/A	\$18,900.00	5.0%	\$19,845.00	5.0%	\$20,837.25	5.0%	\$21,879.11
42410 - General Expense	\$0.00	\$1,000.00	\$1,000.00	N/A	\$1,050.00	5.0%	\$1,102.50	5.0%	\$1,157.63	5.0%	\$1,215.51
42600 - Equipment Maintenance/Repair	\$0.00	\$2,000.00	\$2,000.00	N/A	\$2,100.00	5.0%	\$2,205.00	5.0%	\$2,315.25	5.0%	\$2,431.01
43110 - Auditing Services	\$0.00	\$8,500.00	\$8,500.00	N/A	\$8,925.00	5.0%	\$9,371.25	5.0%	\$9,839.81	5.0%	\$10,331.80
43120 - Consulting Services	\$0.00	\$10,000.00	\$10,000.00	N/A	\$10,500.00	5.0%	\$11,025.00	5.0%	\$11,576.25	5.0%	\$12,155.06
43130 - Engineering Reviews/Inspection	\$20,000.00	\$35,000.00	\$35,000.00	75.0%	\$36,750.00	5.0%	\$38,587.50	5.0%	\$40,516.88	5.0%	\$42,542.72
43140 - Legal General Counsel	\$26,250.00	\$275,000.00	\$50,000.00	90.5%	\$50,000.00	0.0%	\$50,000.00	0.0%	\$50,000.00	0.0%	\$50,000.00
43142 - Legal Special Counsel	\$0.00	\$150,000.00	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
43180 - Dues/Subscriptions/Publication	\$64,813.00	\$8,000.00	\$8,000.00	-87.7%	\$8,400.00	5.0%	\$8,820.00	5.0%	\$9,261.00	5.0%	\$9,724.05
43196 - Meter Readings	\$0.00	\$3,400.00	\$3,400.00	N/A	\$3,570.00	5.0%	\$3,748.50	5.0%	\$3,935.93	5.0%	\$4,132.72
43197 - DP IT/Software Maint	\$0.00	\$12,210.00	\$11,960.00	N/A	\$12,199.20	2.0%	\$12,443.18	2.0%	\$12,692.05	2.0%	\$12,945.89
43200 - Communications	\$0.00	\$5,000.00	\$5,000.00	N/A	\$5,250.00	5.0%	\$5,512.50	5.0%	\$5,788.13	5.0%	\$6,077.53
43410 - Advertising	\$0.00	\$800.00	\$800.00	N/A	\$840.00	5.0%	\$882.00	5.0%	\$926.10	5.0%	\$972.41
43511 - Vehicle Insurance	\$0.00	\$5,669.00	\$5,669.00	N/A	\$5,669.00	0.0%	\$5,669.00	0.0%	\$5,669.00	0.0%	\$5,669.00
43512 - Casualty Insurance	\$0.00	\$92,680.00	\$92,680.00	N/A	\$92,680.00	0.0%	\$92,680.00	0.0%	\$92,680.00	0.0%	\$92,680.00
43530 - Bonding	\$0.00	\$1,528.50	\$1,528.50	N/A	\$1,528.50	0.0%	\$1,528.50	0.0%	\$1,528.50	0.0%	\$1,528.50
43600 - Utilities	\$0.00	\$500.00	\$500.00	N/A	\$525.00	5.0%	\$551.25	5.0%	\$578.81	5.0%	\$607.75
43840 - Equipment Rental	\$3,045.00	\$4,000.00	\$4,000.00	31.4%	\$4,200.00	5.0%	\$4,410.00	5.0%	\$4,630.50	5.0%	\$4,862.03
43901 - Credit Card Fees	\$0.00	\$20,051.52	\$20,452.55	N/A	\$20,861.60	2.0%	\$21,278.83	2.0%	\$21,704.41	2.0%	\$22,138.50
47000 - Capital Purchase	\$1,000.00	\$1,000.00	\$1,000.00	0.0%	\$1,050.00	5.0%	\$1,102.50	5.0%	\$1,157.63	5.0%	\$1,215.51
49003 - Fiscal Agent Fees	\$250.00	\$1,500.00	\$1,500.00	500.0%	\$1,500.00	0.0%	\$1,500.00	0.0%	\$1,500.00	0.0%	\$1,500.00
49005 - Debt Service '12 & 13 GO Bonds	\$391,658.00	\$391,657.00	\$391,657.00	0.0%	\$391,657.00	0.0%	\$391,657.00	0.0%	\$391,657.00	0.0%	\$391,657.00
49006 - Debt Service Expense	\$2,192,883.00	\$2,192,882.50	\$2,192,882.50	0.0%	\$2,192,882.50	0.0%	\$2,192,882.50	0.0%	\$2,192,882.50	0.0%	\$2,192,882.50

2018 BUDGET
EXETER TOWNSHIP
FUND 08 SEWER

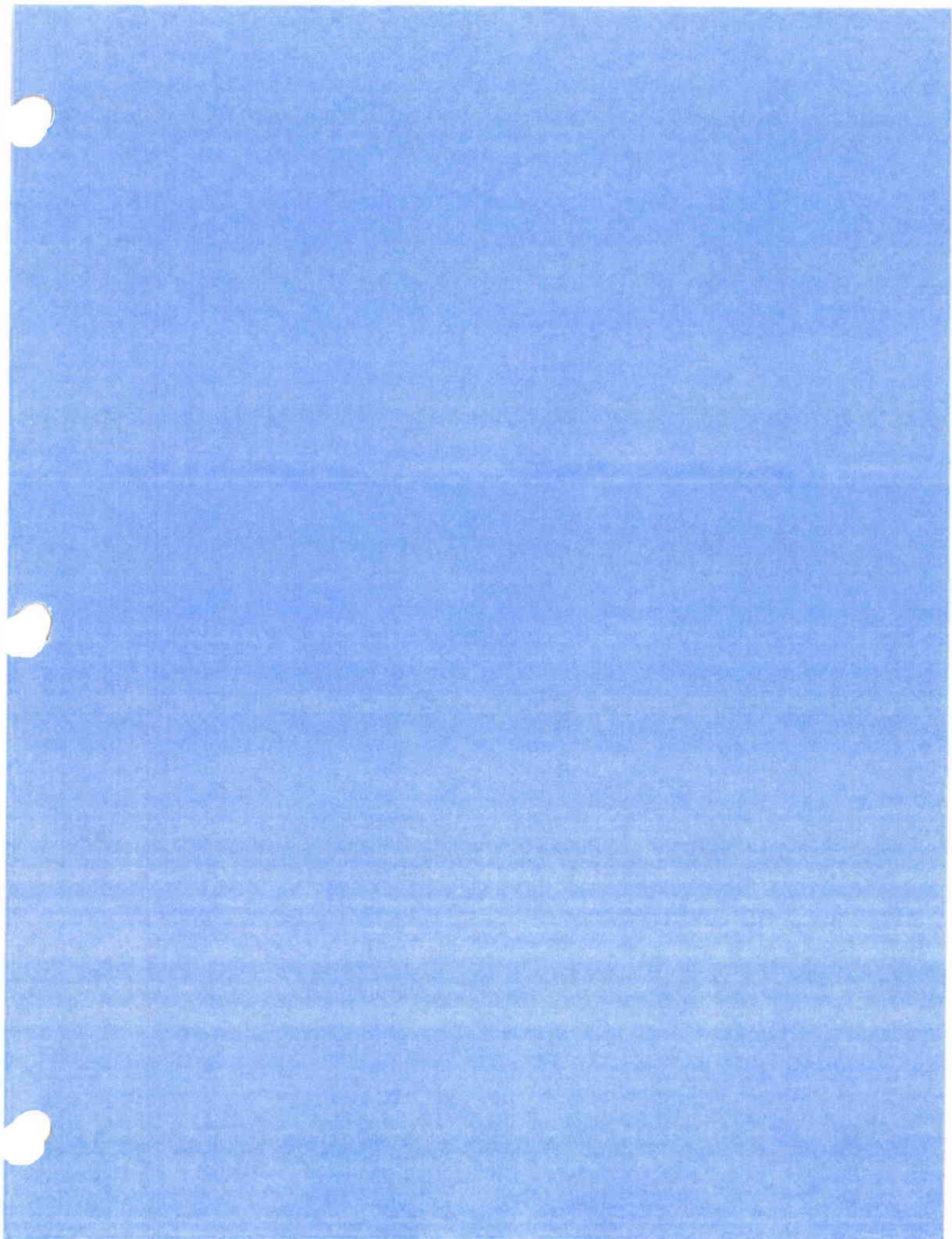
Organization/Object	2017 Budget	2017 Projected	2018 Budget	% Change	2019 Outlook	% Change	2020 Outlook	% Change	2021 Outlook	% Change	2022 Outlook
49200 - Transfer to Other Funds	\$360,000.00	\$660,000.00	\$660,000.00	83.3%	\$660,000.00	0.0%	\$660,000.00	0.0%	\$660,000.00	0.0%	\$660,000.00
08600572 - WWT Collection System	\$264,319.62	\$254,443.09	\$317,661.77	20.2%	\$327,286.98	3.0%	\$333,776.19	2.0%	\$343,793.82	3.0%	\$350,678.22
41140 - Wages	\$113,022.00	\$111,332.64	\$113,649.20	0.6%	\$117,058.68	3.0%	\$120,570.44	3.0%	\$124,187.55	3.0%	\$127,913.18
41141 - Wages Vehicle Maintenance	\$0.00	\$6,654.94	\$14,300.52	N/A	\$14,729.54	3.0%	\$15,171.42	3.0%	\$15,626.56	3.0%	\$16,095.36
41920 - FICA	\$8,646.18	\$8,827.42	\$9,788.15	13.2%	\$10,081.80	3.0%	\$10,384.25	3.0%	\$10,695.78	3.0%	\$11,016.65
41940 - Unemployment Compensation	\$1,130.22	\$766.06	\$570.00	-49.6%	\$587.10	3.0%	\$604.71	3.0%	\$622.85	3.0%	\$641.54
41950 - Workers Comp Insurance	\$1,130.22	\$6,239.40	\$8,649.22	665.3%	\$8,908.70	3.0%	\$9,175.96	3.0%	\$9,451.24	3.0%	\$9,734.77
41961 - Union Health & Welfare	\$45,208.80	\$32,432.20	\$52,114.68	15.3%	\$53,678.12	3.0%	\$55,288.46	3.0%	\$56,947.12	3.0%	\$58,655.53
41971 - Union Pension	\$11,302.20	\$8,800.00	\$10,935.00	-3.2%	\$11,263.05	3.0%	\$11,600.94	3.0%	\$11,948.97	3.0%	\$12,307.44
42315 - Vehicle Fuel/Oil	\$0.00	\$5,000.00	\$5,000.00	N/A	\$5,250.00	5.0%	\$5,250.00	0.0%	\$5,355.00	2.0%	\$5,355.00
42360 - Maintenance Supplies	\$40,425.00	\$35,000.00	\$40,000.00	-1.1%	\$42,000.00	5.0%	\$42,000.00	0.0%	\$44,100.00	5.0%	\$44,100.00
42385 - Uniform Rental	\$0.00	\$200.00	\$200.00	N/A	\$210.00	5.0%	\$210.00	0.0%	\$220.50	5.0%	\$220.50
42450 - Tools/Minor Equipment	\$0.00	\$300.00	\$300.00	N/A	\$315.00	5.0%	\$315.00	0.0%	\$330.75	5.0%	\$330.75
42510 - Vehicle Maintenance	\$0.00	\$26.00	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
42600 - Equipment Maintenance/Repair	\$6,800.00	\$5,000.00	\$6,000.00	-11.8%	\$6,300.00	5.0%	\$6,300.00	0.0%	\$6,615.00	5.0%	\$6,615.00
43130 - Engineering Reviews/Inspection	\$4,000.00	\$2,000.00	\$4,000.00	0.0%	\$4,200.00	5.0%	\$4,200.00	0.0%	\$4,410.00	5.0%	\$4,410.00
43190 - Contracted Services	\$4,000.00	\$16,450.93	\$20,000.00	400.0%	\$20,000.00	0.0%	\$20,000.00	0.0%	\$20,000.00	0.0%	\$20,000.00
43196 - Meter Readings	\$0.00	\$150.00	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
43200 - Communications	\$0.00	\$500.00	\$500.00	N/A	\$525.00	5.0%	\$525.00	0.0%	\$551.25	5.0%	\$551.25
43600 - Utilities	\$7,500.00	\$9,000.00	\$9,000.00	20.0%	\$9,450.00	5.0%	\$9,450.00	0.0%	\$9,922.50	5.0%	\$9,922.50
43700 - Building Repairs/Maintenance	\$0.00	\$1,500.00	\$1,500.00	N/A	\$1,575.00	5.0%	\$1,575.00	0.0%	\$1,653.75	5.0%	\$1,653.75
47000 - Capital Purchase	\$1,155.00	\$5,520.00	\$1,155.00	0.0%	\$1,155.00	0.0%	\$1,155.00	0.0%	\$1,155.00	0.0%	\$1,155.00
47001 - Installation - Meters	\$20,000.00	(\$1,256.50)	\$20,000.00	0.0%	\$20,000.00	0.0%	\$20,000.00	0.0%	\$20,000.00	0.0%	\$20,000.00
08600573 - WWT Lab Analysis	\$253,945.09	\$246,741.96	\$269,310.81	6.1%	\$276,701.77	2.7%	\$282,758.58	2.2%	\$290,323.33	2.7%	\$297,019.22
41140 - Wages	\$118,810.00	\$131,279.48	\$121,096.56	1.9%	\$124,729.46	3.0%	\$128,471.34	3.0%	\$132,325.48	3.0%	\$136,295.25
41920 - FICA	\$9,088.96	\$10,042.88	\$9,263.89	1.9%	\$9,541.80	3.0%	\$9,828.06	3.0%	\$10,122.90	3.0%	\$10,426.59
41940 - Unemployment Compensation	\$796.03	\$780.04	\$380.00	-52.3%	\$391.40	3.0%	\$403.14	3.0%	\$415.24	3.0%	\$427.69
41950 - Workers Comp Insurance	\$1,188.10	\$6,558.92	\$8,053.36	577.8%	\$8,294.96	3.0%	\$8,543.81	3.0%	\$8,800.12	3.0%	\$9,064.13
41961 - Union Health & Welfare	\$47,524.00	\$32,598.64	\$55,590.00	17.0%	\$57,257.70	3.0%	\$58,975.43	3.0%	\$60,744.69	3.0%	\$62,567.03
41971 - Union Pension	\$11,881.00	\$8,800.00	\$9,720.00	-18.2%	\$10,011.60	3.0%	\$10,311.95	3.0%	\$10,621.31	3.0%	\$10,939.95
42160 - Other Supplies	\$1,950.00	\$3,000.00	\$3,000.00	53.8%	\$3,150.00	5.0%	\$3,307.50	5.0%	\$3,465.00	5.0%	\$3,622.50
42250 - Lab Supplies	\$14,332.00	\$9,332.00	\$11,332.00	-20.9%	\$11,898.60	5.0%	\$11,898.60	0.0%	\$12,493.53	5.0%	\$12,493.53
42360 - Maintenance Supplies	\$0.00	\$2,000.00	\$2,000.00	N/A	\$2,100.00	5.0%	\$2,100.00	0.0%	\$2,205.00	5.0%	\$2,205.00
42385 - Uniform Rental	\$0.00	\$200.00	\$200.00	N/A	\$210.00	5.0%	\$210.00	0.0%	\$220.50	5.0%	\$220.50
42450 - Tools/Minor Equipment	\$8,525.00	\$300.00	\$300.00	-96.5%	\$315.00	5.0%	\$315.00	0.0%	\$330.75	5.0%	\$330.75
42600 - Equipment Maintenance/Repair	\$0.00	\$2,000.00	\$3,525.00	N/A	\$3,701.25	5.0%	\$3,701.25	0.0%	\$3,886.31	5.0%	\$3,886.31
43190 - Contracted Services	\$39,850.00	\$39,850.00	\$39,850.00	0.0%	\$39,850.00	0.0%	\$39,850.00	0.0%	\$39,850.00	0.0%	\$39,850.00
47000 - Capital Purchase	\$0.00	\$0.00	\$5,000.00	N/A	\$5,250.00	5.0%	\$5,000.00	-4.8%	\$5,000.00	0.0%	\$5,000.00
08600574 - WWT Dryer	\$306,078.71	\$259,518.09	\$302,336.15	-1.2%	\$315,275.74	4.3%	\$318,589.33	1.1%	\$322,210.96	4.3%	\$325,726.36
41140 - Wages	\$61,043.00	\$67,089.04	\$61,350.08	0.5%	\$63,190.58	3.0%	\$65,086.30	3.0%	\$67,038.89	3.0%	\$69,050.06
41920 - FICA	\$4,669.79	\$5,132.31	\$4,693.28	0.5%	\$4,834.08	3.0%	\$4,979.10	3.0%	\$5,128.47	3.0%	\$5,282.33
41940 - Unemployment Compensation	\$408.99	\$389.98	\$190.00	-53.5%	\$195.70	3.0%	\$201.57	3.0%	\$207.62	3.0%	\$213.85
41950 - Workers Comp Insurance	\$610.43	\$3,369.88	\$4,137.71	577.8%	\$4,261.84	3.0%	\$4,389.70	3.0%	\$4,521.39	3.0%	\$4,657.03
41961 - Union Health & Welfare	\$24,417.20	\$16,299.32	\$32,005.08	31.1%	\$32,965.23	3.0%	\$33,954.19	3.0%	\$34,972.82	3.0%	\$36,022.00
41971 - Union Pension	\$6,104.30	\$4,400.00	\$4,860.00	-20.4%	\$5,005.80	3.0%	\$5,155.97	3.0%	\$5,310.65	3.0%	\$5,469.97
42160 - Other Supplies	\$650.00	\$387.56	\$650.00	0.0%	\$650.00	0.0%	\$650.00	0.0%	\$650.00	0.0%	\$650.00
42210 - Chemical Supplies	\$93,650.00	\$50,000.00	\$50,000.00	-46.6%	\$52,500.00	5.0%	\$52,500.00	0.0%	\$55,125.00	5.0%	\$55,125.00
42212 - Chemical Biosolids Dust Contro	\$0.00	\$19,000.00	\$20,000.00	N/A	\$21,000.00	5.0%	\$21,000.00	0.0%	\$22,050.00	5.0%	\$22,050.00
42360 - Maintenance Supplies	\$0.00	\$650.00	\$650.00	N/A	\$682.50	5.0%	\$682.50	0.0%	\$716.63	5.0%	\$716.63
42385 - Uniform Rental	\$0.00	\$100.00	\$100.00	N/A	\$105.00	5.0%	\$105.00	0.0%	\$110.25	5.0%	\$110.25
42450 - Tools/Minor Equipment	\$8,925.00	\$300.00	\$300.00	-96.6%	\$315.00	5.0%	\$315.00	0.0%	\$330.75	5.0%	\$330.75
42600 - Equipment Maintenance/Repair	\$0.00	\$4,000.00	\$8,000.00	N/A	\$8,400.00	5.0%	\$8,400.00	0.0%	\$8,820.00	5.0%	\$8,820.00
43190 - Contracted Services	\$7,200.00	\$3,000.00	\$5,000.00	-30.6%	\$5,250.00	5.0%	\$5,250.00	0.0%	\$5,512.50	5.0%	\$5,512.50

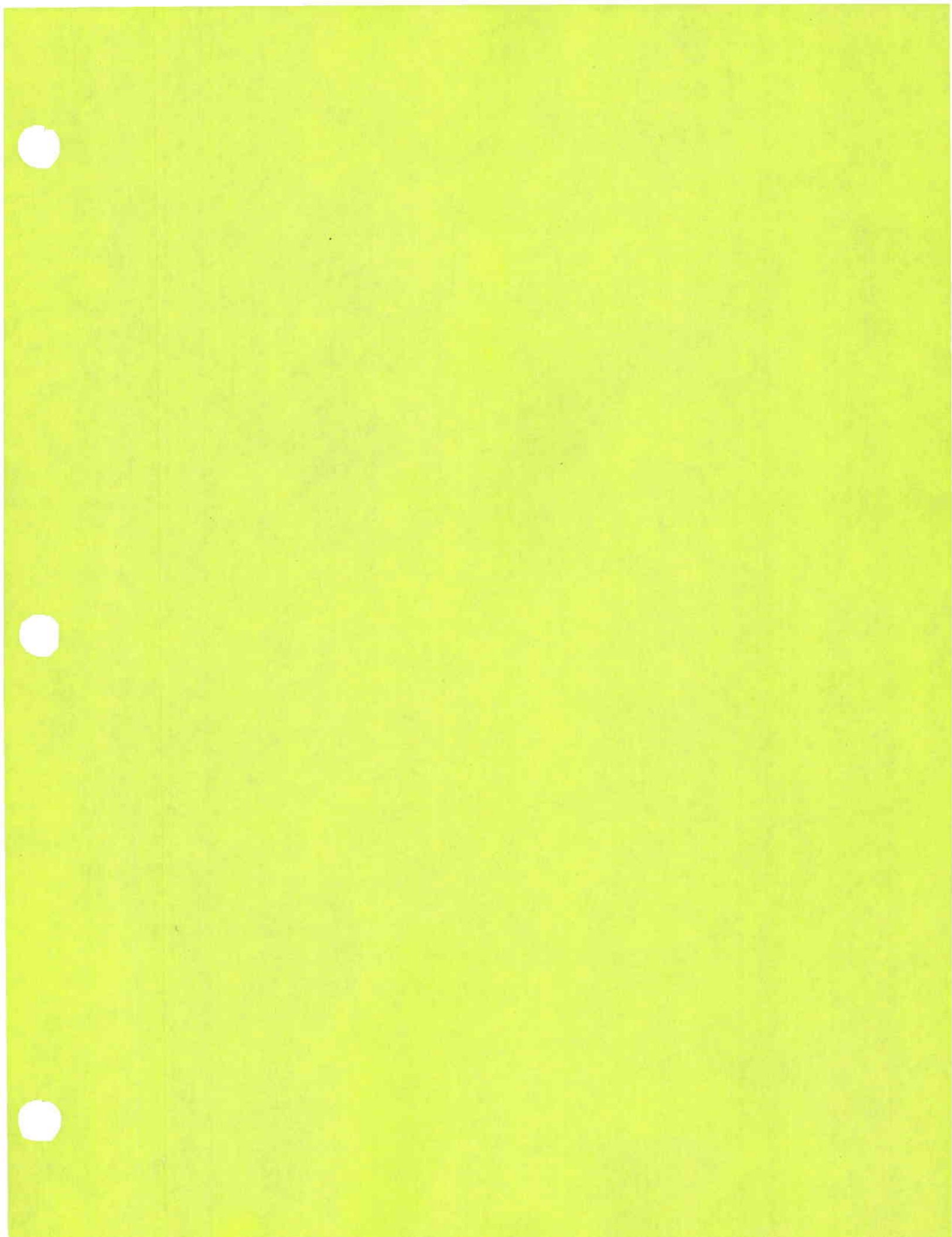
**2018 BUDGET
EXETER TOWNSHIP
FUND 08 SEWER**

Organization/Object	2017 Budget	2017 Projected	2018 Budget	% Change	2018 Outlook	% Change	2020 Outlook	% Change	2021 Outlook	% Change	2022 Outlook
43195 - Sludge Removal	\$15,000.00	\$2,000.00	\$12,000.00	-20.0%	\$12,600.00	5.0%	\$12,600.00	0.0%	\$13,230.00	5.0%	\$13,230.00
43600 - Utilities	\$83,400.00	\$83,400.00	\$83,400.00	0.0%	\$87,570.00	5.0%	\$87,570.00	0.0%	\$91,948.50	5.0%	\$91,948.50
47000 - Capital Purchase	\$0.00	\$0.00	\$15,000.00	N/A	\$15,750.00	5.0%	\$15,750.00	0.0%	\$16,537.50	5.0%	\$16,537.50
08600575 - WWT Treatment Cost	\$1,112,058.08	\$986,087.87	\$971,152.22	-12.7%	\$1,006,143.79	3.6%	\$1,054,008.17	4.8%	\$1,082,488.06	3.6%	\$1,108,063.35
41140 - Wages	\$409,282.00	\$366,715.66	\$283,844.88	-30.6%	\$292,360.23	3.0%	\$301,131.03	3.0%	\$310,164.96	3.0%	\$319,469.91
41920 - FICA	\$31,310.07	\$28,053.75	\$21,714.13	-30.6%	\$22,365.56	3.0%	\$23,036.52	3.0%	\$23,727.62	3.0%	\$24,439.45
41940 - Unemployment Compensation	\$2,742.19	\$2,646.64	\$950.00	-65.4%	\$978.50	3.0%	\$1,007.86	3.0%	\$1,038.09	3.0%	\$1,069.23
41950 - Workers Comp Insurance	\$4,092.82	\$22,288.04	\$19,237.77	370.0%	\$19,814.90	3.0%	\$20,409.35	3.0%	\$21,021.63	3.0%	\$21,652.28
41961 - Union Health & Welfare	\$163,712.80	\$107,668.78	\$123,130.44	-24.8%	\$126,824.35	3.0%	\$130,629.08	3.0%	\$134,547.96	3.0%	\$138,584.39
41971 - Union Pension	\$40,928.20	\$29,040.00	\$24,300.00	-40.6%	\$25,029.00	3.0%	\$25,779.87	3.0%	\$26,553.27	3.0%	\$27,349.86
42160 - Other Supplies	\$0.00	\$3,000.00	\$3,000.00	N/A	\$3,060.00	2.0%	\$3,121.20	2.0%	\$3,183.62	2.0%	\$3,247.30
42210 - Chemical Supplies	\$0.00	\$200.00	\$210.00	N/A	\$210.00	0.0%	\$210.00	0.0%	\$220.50	5.0%	\$220.50
42211 - Chlorine Supplies	\$10,000.00	\$9,000.00	\$10,000.00	0.0%	\$10,500.00	5.0%	\$10,500.00	0.0%	\$11,025.00	5.0%	\$11,025.00
42315 - Vehicle Fuel/Oil	\$27,450.00	\$25,000.00	\$27,450.00	0.0%	\$28,822.50	5.0%	\$28,822.50	0.0%	\$30,263.63	5.0%	\$30,263.63
42360 - Maintenance Supplies	\$10,400.00	\$10,400.00	\$10,400.00	0.0%	\$10,920.00	5.0%	\$10,920.00	0.0%	\$11,466.00	5.0%	\$11,466.00
42385 - Uniform Rental	\$0.00	\$1,200.00	\$1,200.00	N/A	\$1,260.00	5.0%	\$12,600.00	900.0%	\$13,230.00	5.0%	\$13,230.00
42450 - Tools/Minor Equipment	\$0.00	\$1,000.00	\$1,000.00	N/A	\$1,050.00	5.0%	\$1,050.00	0.0%	\$1,102.50	5.0%	\$1,102.50
42510 - Vehicle Maintenance	\$0.00	\$2,000.00	\$2,000.00	N/A	\$2,100.00	5.0%	\$21,000.00	900.0%	\$22,050.00	5.0%	\$20,050.00
42511 - Vehicle Maintenance Tires	\$0.00	\$2,000.00	\$2,000.00	N/A	\$2,100.00	5.0%	\$2,100.00	0.0%	\$2,205.00	5.0%	\$2,205.00
42512 - Vehicle Maintenance Parts	\$0.00	\$2,500.00	\$2,500.00	N/A	\$2,625.00	5.0%	\$2,625.00	0.0%	\$2,756.25	5.0%	\$2,756.25
42515 - Contracted Vehicle Maintenance	\$0.00	\$4,000.00	\$4,000.00	N/A	\$4,200.00	5.0%	\$4,200.00	0.0%	\$4,410.00	5.0%	\$4,410.00
42600 - Equipment Maintenance/Repair	\$79,325.00	\$40,000.00	\$80,000.00	0.9%	\$80,000.00	0.0%	\$83,000.00	3.8%	\$83,000.00	0.0%	\$85,000.00
43190 - Contracted Services	\$0.00	\$16,000.00	\$16,000.00	N/A	\$16,800.00	N/A	\$16,800.00	0.0%	\$17,640.00	5.0%	\$17,640.00
43195 - Sludge Removal	\$60,000.00	\$40,000.00	\$60,000.00	0.0%	\$63,000.00	5.0%	\$63,000.00	0.0%	\$66,150.00	5.0%	\$66,150.00
43200 - Communications	\$15,225.00	\$15,225.00	\$15,225.00	0.0%	\$15,986.25	5.0%	\$15,986.25	0.0%	\$16,785.56	5.0%	\$16,785.56
43600 - Utilities	\$239,600.00	\$245,000.00	\$245,000.00	2.3%	\$257,250.00	5.0%	\$257,250.00	0.0%	\$270,112.50	5.0%	\$270,112.50
43700 - Building Repairs/Maintenance	\$14,990.00	\$10,000.00	\$14,990.00	0.0%	\$15,739.50	5.0%	\$15,739.50	0.0%	\$16,526.48	5.0%	\$16,526.48
43840 - Equipment Rental	\$0.00	\$150.00	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00	N/A	\$0.00
47000 - Capital Purchase	\$3,000.00	\$3,000.00	\$3,000.00	0.0%	\$3,150.00	5.0%	\$3,150.00	0.0%	\$3,307.50	5.0%	\$3,307.50
TOTAL EXPENDITURES	\$5,788,148.00	\$6,329,122.20	\$6,161,137.27	6.4%	\$6,266,129.84	1.9%	\$6,348,909.50	1.5%	\$6,448,240.11	1.6%	\$6,514,262.74
EXCESS OF REVENUES OVER EXPENDITURES - 08 SEWER FUND	\$1,173,584.00	\$102,280.68	\$620,514.24	-47.1%	\$338,118.16	-45.5%	\$244,338.30	-27.7%	\$149,707.89	-41.2%	\$78,985.26

Appendix H - The Township's Projected Future Capital Projects

CAPITAL EXPENSE DETAIL	2018	2019	2020	2021
Engineering (All Projects)	\$110,000	\$0	\$0	\$0
Replace Water Pumps and Controls	115,024			
Replace Collector Chains and Cross Collectors	9,191	9,191	9,191	9,191
Gas Unit for Equipment on Digester Roof	4,600		4,600	
Odor Control -Dryer Room	127,090			
Dewatering Power Feed to MDP-2	31,628			
Replace Portable Water System	23,296			
Other Capital Purchases d/er Misc				
Replace Roof on Garage				
Rotary Swivel Dryer				
Replace 3 Raw Wastewater Pumps	695,289			
Manhole Rehab				
Pipe Line & Service Line lining	236,100	100,000	100,000	100,000
Replace Truck 24	35,000			
Centrifugal Scum pump - Primary PS	3,500			
Upgrade Scada System	50,720			
Heating/AC Unit for Control Building	30,000			
Loader Bucket for 5075M Tractor	5,800			
Install New Body/with Liftgate	14,619			
Replece Recirculation Pump #2 Digester	10,640			
Smartshore Trenching	8,300			
Replace Air Compressor	25,000			
Schuylkill River Trunk Engineering	491,315			
Antietam Engineering	19,661			
Inspection Schuylkill Trunk			168,684	
Inspections Antietam Trunk			6,750	
Recirculation Pump (Centrifugal)	7,000			
Replace Rooftop Heating Units Garage & Headwork's Building	50,000			
Replace Roof on Headworks Building & Generator Gargage Building	180,000			
Replace Schuylkill Trunk Line		4,498,265		
Antietam Trunk Line Replacement		180,015		
Replaece Carbon in Dryer Scrubber		5,000		
Replace Bearing in One Centrifuge		5,000	5,000	
Replace 2 Industrial Compressor's (Primary Pumping)		38,560		
Pave WTP Streets		50,000		
Replace Crane Truck			60,000	
Heister's Creek Trunk Engineering			141,238	
Centrifugal Scum pump - Primary PS			4,000	
Drive Mechanism for Pista Grit System			60,861	
Vacuum Primer System for Pista			43,473	
Thickener Drive			8,694	
Replace Pumps in all Pump Stations			131,000	
Replace Econoline Van				25,000
Heister's Creek Trunk Inspection				48,492
Purchase One Rotary Lobe Pump for Digester				8,000
Replace Digester Roof	20,000			
Dilute Pumps (3)				12,000
Replace Bearing in 3 Blowers				8,000
Replace 3 Sludge Pumps in Pump Stations 2				45,000
Heister's Creek Trunk Replacement				1,293,111
Unknown Repairs or Equipment	50,000	50,000	50,000	50,000
Total Capital Expense	2,353,773	4,936,031	793,491	1,598,794





Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Income Approach

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**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Potential Purchaser: Investor-Owned Utility
As of January 1, 2018
Discounted Cash Flow Analysis**

Discount Rate	/ 19%													
Capitalization Rate	b / %													
(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	9,664,515	2,566,310	3,912,895	7,098,205	3,185,310	920,236	1,411,155	(213,383)	4,980,197	0.966	4,810,870	4,810,870	
2	1.5	9,761,160	2,647,124	3,961,115	7,114,036	3,152,921	910,879	1,429,959	(5,605)	4,778,803	0.901	4,305,702	9,116,572	
3	2.5	9,858,772	2,730,555	4,010,755	7,128,217	3,117,462	900,635	1,448,037	(5,662)	4,784,207	0.841	4,023,518	13,140,090	
4	3.5	9,957,360	2,816,691	4,061,846	7,140,669	3,078,823	889,472	1,468,397	(5,718)	4,788,518	0.784	3,754,198	16,894,288	
5	4.5	11,052,070	2,905,623	4,114,421	8,147,047	4,032,626	1,165,026	1,484,038	(63,528)	5,557,511	0.732	4,068,098	20,962,386	
6	5.5	11,273,723	2,957,447	4,168,513	8,276,276	4,107,763	1,186,733	1,507,965	(12,821)	5,594,399	0.683	3,820,975	24,783,361	
7	6.5	11,493,157	3,092,260	4,283,304	8,406,937	4,123,635	1,191,318	1,750,771	(13,077)	5,477,925	0.637	3,489,438	28,272,799	
8	7.5	11,773,181	3,190,168	4,353,374	8,539,013	4,185,689	1,209,246	1,781,820	(13,339)	5,561,286	0.594	3,303,404	31,576,203	
9	8.5	12,667,515	3,291,272	4,425,889	9,379,243	4,950,354	1,430,157	1,813,467	(14,424)	6,187,043	0.554	3,427,822	35,003,825	
10	9.5	13,427,566	3,395,679	4,501,072	10,031,887	5,530,815	1,597,859	1,845,726	(44,083)	6,632,391	0.517	3,428,946	38,432,771	
11	10.5	13,896,117	3,503,505	4,578,949	10,192,612	5,613,663	1,621,787	1,878,610	(15,576)	6,707,791	0.482	3,233,155	41,665,926	
12	11.5	15,970,039	3,614,865	4,659,597	10,355,174	5,695,577	1,645,452	1,912,130	(15,887)	6,813,479	0.450	3,066,066	44,731,992	
13	12.5	15,087,842	3,729,874	4,730,149	11,357,763	6,627,614	1,914,718	1,946,302	(64,821)	7,561,564	0.420	3,175,857	47,907,849	
14	13.5	15,389,395	3,848,672	4,816,514	11,540,723	6,724,209	1,942,624	1,981,137	(17,502)	7,634,464	0.392	2,992,710	50,900,559	
15	14.5	16,314,759	3,971,376	4,905,898	12,341,383	7,435,485	2,148,112	2,016,650	(53,555)	8,230,176	0.365	3,004,014	53,904,573	
16	15.5	16,312,759	4,098,174	4,764,210	12,214,635	7,450,425	2,152,428	1,686,991		8,375,256	0.341	2,855,962	56,760,535	
17	16.5	17,291,525	4,229,050	4,836,467	13,062,475	8,226,108	2,376,523	1,710,730	(56,768)	9,031,990	0.318	2,872,173	59,632,708	
18	17.5	17,291,525	4,364,305	4,841,729	12,927,220	8,085,491	2,335,898	1,734,870		8,856,452	0.297	2,630,366	62,263,074	
19	18.5	17,291,525	4,504,038	4,847,493	12,787,487	7,940,294	2,293,951	1,759,376		8,734,160	0.277	2,419,362	64,682,436	
20 and beyond	19.5	17,983,180	4,648,405	4,923,552	13,334,781	8,411,229	2,430,004	1,784,260	(40,117)	9,160,634	4.550	41,680,885	106,363,321	
			70,145,348					34,357,351						
Age										19.5				
PW(Age) = 1/(1+Discount Rate) ^(Age)										0.258				
PW to Perpetuity = 1/Capitalization Rate										17.637				
PW _(20 and beyond) = PW to Perpetuity * PW Factor _(19.5)										4.55				

Deferred Tax

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility
Appraisal Work Papers
As of January 1, 2018

Income Approach

Discounted Cash Flow Analysis
Private Rate Regulated Wastewater Utility
Statement of Net Position
Period 1 through 19 and 20 to perpetuity

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Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Potential Purchaser - Investor-Owned Utility
 As of January 1, 2018

	Year	Period	1	2	3	4	5	6	7	8	9	10	11
Ending Equity Capital			73,479,081	75,332,031	77,225,137	79,199,117	81,049,874	82,801,816	87,798,296	90,940,933	94,711,767	98,995,905	103,428,312
Operating Income			4,841,802	4,811,031	4,841,000	4,864,293	5,361,141	5,594,181	6,104,208	6,246,454	7,049,104	7,352,074	7,883,667
Return On Equity			6.55%	6.41%	6.27%	6.14%	7.16%	7.07%	6.95%	6.87%	7.46%	7.81%	7.62%
Total Debtless & Stockholders Equity			101,465,202	102,900,041	104,438,157	106,091,059	108,606,656	111,751,877	114,075,290	117,093,366	120,822,045	125,101,128	129,547,670
Assets less Liabilities & Stockholders Equity			(2,750,532)	(5,038,406)	(7,414,713)	(9,875,296)	(13,185,060)	(16,607,412)	(19,985,570)	(23,522,194)	(27,752,343)	(32,493,349)	(37,373,081)
Capital Expenditures and Changes in Working Capital													
Capital Expenditures			1,411,153.00	-429,959.00	1,449,037.00	1,468,397.00	1,488,038.00	1,507,965.00	1,750,771.00	1,781,820.00	1,813,467.00	1,845,726.00	1,878,610.00
Changes to Working Capital													
Current Assets													
Current Liabilities	\$47,159		560,547	568,147	571,809	577,527	641,055	653,876	666,853	680,292	734,716	778,790	794,375
Working Capital	(\$47,159)		(\$40,542)	(\$66,147)	(\$71,809)	(\$77,527)	(\$61,055)	(\$65,876)	(\$66,953)	(\$80,292)	(\$34,716)	(\$78,790)	(\$74,375)
Changes to Working Capital			(2,338.3)	(5,605)	(5,662)	(5,718)	(6,578)	(12,811)	(13,077)	(13,339)	(14,424)	(14,083)	(15,576)
CASH FLOW													
Income from Operations			3,714,371	3,717,259	4,714,945	4,721,424	4,426,769	4,508,619	4,578,653	4,671,874	5,249,193	5,713,219	5,813,857
Non-Cash Expense (Depreciation)			7,286,365	7,283,035	7,287,217	7,276,378	7,279,306	7,283,095	7,302,791	7,292,550	7,307,139	7,299,813	7,308,945
Capital Expenditures			1,411,155	1,429,959	1,449,037	1,468,397	1,488,038	1,507,965	1,750,771	1,781,820	1,813,467	1,845,726	1,878,610
Change in Working Capital			(213,383)	(5,605)	(5,662)	(5,718)	(6,578)	(12,811)	(13,077)	(13,339)	(14,424)	(14,083)	(15,576)
Net Cash Flows			4,801,907	4,572,904	4,558,787	4,536,123	5,282,165	5,295,570	5,143,680	5,195,952	5,797,289	6,211,389	6,259,763
Period			0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
PW Factor													
Discount Rate with growth	7.15%		7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%
Discount Rate without growth	5.67%		5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%
Period Present Worth Factor (PW)			0.966	0.901	0.841	0.784	0.732	0.683	0.637	0.594	0.554	0.517	0.482
PW of Cashflow			4,638,637	4,122,890	3,832,840	3,556,320	3,866,545	3,616,874	3,276,531	3,086,395	3,211,698	3,211,788	3,027,206
Accumulated PW of Cashflows	99,918,773		4,638,637	8,761,577	12,595,467	16,151,787	20,018,332	23,635,206	26,911,737	29,998,132	31,209,830	36,421,118	39,438,324
CASH FLOW													
Income from Operations			1,547,160	1,548,155	1,546,060	1,540,952	2,240,815	2,215,137	2,346,620	2,410,270	2,972,896	3,403,905	3,480,453
Depreciation			(3,917,895)	(3,961,115)	(4,010,755)	(4,061,846)	(4,114,421)	(4,168,514)	(4,283,302)	(4,353,224)	(4,445,889)	(4,572,072)	(4,576,949)
Capital Expenditures			1,411,152	1,429,959	1,449,037	1,468,397	1,488,038	1,507,965	1,750,771	1,781,820	1,813,467	1,845,726	1,878,610
Change in Working Capital			(213,383)	(5,605)	(5,662)	(5,718)	(6,578)	(12,811)	(13,077)	(13,339)	(14,424)	(14,083)	(15,576)
Net Cash Flows			4,267,388	4,084,916	4,113,449	4,140,119	4,930,226	4,988,506	4,892,228	4,995,112	5,639,742	6,163,334	6,196,988
Period			0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
PW Factor													
Discount Rate with growth	7.15%		7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%
Discount Rate without growth	5.67%		5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%
Period Present Worth Factor (PW)			0.966	0.901	0.841	0.784	0.732	0.683	0.637	0.594	0.554	0.517	0.482
PW of Cashflow			4,117,462	3,680,509	3,459,411	3,245,853	3,609,491	3,407,150	3,116,349	2,967,097	3,124,417	3,153,424	2,986,649
Accumulated PW of Cashflows	18,579,095		4,117,462	7,797,971	11,257,382	14,503,235	18,112,726	21,519,876	24,636,025	27,603,122	30,727,539	33,882,563	36,869,612
Rate Case Forecasts													
Rate Base													
Plant in Service			100,759,775.55	101,945,613.55	103,147,563.55	104,365,868.55	105,600,769.55	106,852,508.55	108,365,572.55	109,905,904.55	111,474,029.55	113,070,493.55	114,695,850.55
Accumulated Book Depreciation			(2,045,105.25)	(4,083,988.92)	(6,124,119.27)	(8,150,405.42)	(10,177,173.94)	(12,203,044.07)	(14,275,845.03)	(16,434,713.04)	(18,604,327.12)	(20,862,714.13)	(22,576,267.66)
Working Capital			(560,542.00)	(566,147.00)	(571,809.00)	(577,527.00)	(641,055.00)	(653,876.00)	(666,953.00)	(680,292.00)	(734,716.00)	(778,790.00)	(794,375.00)
Accumulated Deferred Income Tax			(469,323)	(854,729)	(1,452,459)	(1,928,841)	(2,498,473)	(3,143,459)	(3,815,546)	(4,511,003)	(5,233,106)	(5,959,052)	(6,714,856)
Rate Base			97,644,209.30	96,340,748.63	94,968,576.28	93,869,925.13	92,284,067.61	90,852,130.48	89,807,128.52	88,679,888.51	87,511,878.43	86,369,928.42	85,260,357.89
Revenue			9,644,515.00	9,761,160.00	9,858,771.00	9,957,360.00	11,052,670.00	11,273,723.00	11,499,187.00	11,729,181.00	12,667,515.00	13,427,566.00	13,696,117.00
O&M Expense			2,586,310.00	2,647,124.00	2,736,155.00	2,816,691.00	2,905,623.00	2,997,447.00	3,092,260.00	3,190,168.00	3,291,272.00	3,395,679.00	3,503,505.00
Book Depreciation			2,286,303.75	2,283,004.67	2,287,217.35	2,276,378.15	2,279,905.51	2,282,095.13	2,304,736.96	2,292,559.01	2,307,139.08	2,280,813.01	2,308,944.53
Interest Expense			1,009,442.00	975,794.00	943,266.00	911,826.00	881,431.00	852,050.00	823,649.00	796,194.00	769,654.00	743,999.00	719,199.00
Book Income (Current-Deferred)			3,802,459.25	3,855,237.33	3,897,731.65	3,952,464.85	4,085,710.48	5,142,140.87	5,240,557.04	5,450,259.99	6,299,449.97	6,988,074.99	7,164,468.47
State & Federal Taxes @ 28.85%			(,098,531.00)	(1,113,778.00)	(1,126,055.00)	(1,141,867.00)	(1,440,372.00)	(1,485,562.00)	(1,574,580.00)	(1,574,580.00)	(1,819,911.00)	(2,060,815.00)	(2,060,815.00)
Net Operating Income			3,713,370.75	3,717,253.33	3,714,884.65	3,722,497.85	4,426,769.48	4,508,618.87	4,578,653.04	4,671,873.99	5,249,192.92	5,713,218.99	5,813,852.47

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Peter's Purchase Investor-Owned Utility
 As of January 1, 2018

Rate	Period	1	2	3	4	5	6	7	8	9	10	11
Income from Operations	Income from Operations	3,713,371	3,717,254	3,714,845	3,722,424	4,426,768	4,508,610	4,578,653	4,671,874	5,249,193	5,713,215	5,813,853
Return on Rate Base	Return on Rate Base	3.80%	3.86%	3.91%	3.97%	4.80%	4.86%	5.10%	5.27%	6.00%	6.61%	6.82%
Required Return	Required Return	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%
Authorized Return	Authorized Return	6,749,979	6,857,146	6,584,428	6,472,558	6,376,829	6,284,792	6,205,673	6,127,781	6,047,071	5,968,162	5,891,491
After-tax Net Income Taxes	After-tax Net Income Taxes	2,703,929	2,741,459	2,772,477	2,830,598	3,545,338	3,646,569	3,755,004	3,875,680	4,479,539	4,969,220	5,084,653
Pre-tax Net Income	Pre-tax Net Income	1,088,531	1,113,778	1,126,055	1,341,887	1,440,372	1,485,342	1,525,553	1,574,580	1,819,911	2,018,855	2,069,815
Interest Expense	Interest Expense	3,802,480	3,855,237	3,897,732	3,852,465	4,985,710	5,142,131	5,283,557	5,450,260	6,298,450	6,988,075	7,184,468
Operating Income	Operating Income	(1,009,442)	(975,794)	(943,264)	(913,826)	(881,431)	(852,050)	(823,649)	(796,194)	(769,654)	(743,999)	(718,159)
Operating Expenses	Operating Expenses	4,811,902	4,831,031	4,841,000	4,864,291	5,867,141	5,994,181	6,104,306	6,246,454	7,069,104	7,732,074	7,882,667
Revenue Requirement	Revenue Achieved	4,852,613	4,930,128	5,017,772	5,093,088	5,185,529	5,279,542	5,394,991	5,482,727	5,598,411	5,695,492	5,812,450
Required Return	Required Return	6,749,979	6,857,146	6,584,428	6,472,558	6,376,829	6,284,792	6,205,673	6,127,781	6,047,071	5,968,162	5,891,491
Operating Expenses	Operating Expenses	4,852,613	4,930,128	5,017,772	5,093,088	5,185,529	5,279,542	5,394,991	5,482,727	5,598,411	5,695,492	5,812,450
Revenue Requirement	Revenue Requirement	11,602,592	11,587,275	11,582,201	11,565,628	11,562,358	11,564,334	11,600,664	11,610,508	11,645,482	11,663,654	11,703,941
Required Rate Increase	Required Rate Increase Period	20.05%	18.71%	17.48%	16.15%	14.61%	12.58%	10.88%	9.10%	7.48%	6.14%	5.15%
Proposed Rate Increase	Proposed Rate Increase Ratio Increase Scenario	1	2	3	4	5	6	7	8	9	10	11
		28%	0%	0%	0%	6%	0%	0%	0%	6%	0%	0%
	No Rate Increase (Input 2)	0	1	2	3	4	5	6	7	8	9	10
106,363,321.00	28% period 0 No Modest Rate Increase (Input 4)	1	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Modest Rate Inc. Required Rate Increase (Input 6)	2	28.0%	0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	6.0%	0.0%
	Required Rate Increases 29% period 1, 12% period 4, 10% period 8, 9% period 12, 5% period 16, 5% period 20 (Input 6)	3	28.0%	0.0%	0.0%	0.0%	12.0%	0.0%	13.0%	0.0%	10.0%	0.0%
		4	0.0%	0.0%	0.0%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**Pennsylvania American Water Company
Eastern Wastewater System
Wastewater System
Private/Part/Investor-Owned Utility
As of January 1, 2018**

Base:	Periods:	1/	13	14	15	16	17	18	20	Average
Ending Equity Capital		108,018,136	113,350,238	118,839,967	124,935,044	130,988,768	137,648,051	144,253,267	150,777,090	157,731,459
Operating Income		8,050,021	9,040,683	9,710,933	10,012,534	9,878,479	10,739,602	10,590,346	10,492,705	10,996,215
Return On Equity		7.45%	7.98%	7.75%	8.01%	7.54%	7.80%	7.44%	6.92%	6.93%
Total Liabilities & Stockholders Equity		184,188,408	190,463,455	195,291,072	193,605,953	197,782,074	194,703,019	171,510,496	178,249,450	185,502,638
Assets less Liabilities & Stockholders Equity		(42,419,717)	(68,273,617)	(54,257,622)	(60,882,637)	(67,776,187)	(75,268,148)	(82,684,523)	(90,026,897)	(97,842,425)
Capital Expenditures and Changes in Working Capital										
Capital Expenditures		1,912,130.00	1,946,302.00	1,981,137.00	2,016,650.00	1,686,951.00	1,710,730.00	1,734,870.00	1,759,376.00	1,784,260.00
Changes to Working Capital										
Current Assets										
Current Liabilities	347,159	810,767	875,083	892,585	946,140	946,140	1,002,908	1,002,908	1,002,908	1,043,025
Working Capital	(347,159)	(810,767)	(875,083)	(892,585)	(946,140)	(946,140)	(1,002,908)	(1,002,908)	(1,002,908)	(1,043,025)
Changes to Working Capital		(15,447)	(64,821)	(17,502)	(53,555)		(56,768)			(40,117)
CASH FLOW										
Income from Operations		5,925,421	6,622,985	6,737,578	7,301,341	7,199,775	7,806,465	7,694,810	7,577,116	7,972,548
Non-Cash Expense (Depreciation)		2,305,153	2,317,080	2,329,790	2,348,849	2,336,428	2,322,873	2,336,474	2,354,782	2,338,566
Capital Expenditures		(1,912,130)	(1,946,302)	(1,981,137)	(2,016,650)	(1,686,951)	(1,710,730)	(1,734,870)	(1,759,376)	(1,784,260)
Change in Working Capital		(15,887)	(64,821)	(17,502)	(53,555)		(56,768)			(40,117)
Net Cash Flows		6,334,131	7,054,584	7,103,733	7,667,095	7,849,250	8,475,578	8,236,624	8,172,522	8,566,971
Period		11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
PW Factor										
Discount Rate with growth	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%
Discount Rate without growth	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%
Period Present Worth Factor (PW)		0.345	0.42	0.392	0.365	0.341	0.318	0.297	0.277	0.258
PW of Cashflow		2,850,353	2,864,665	2,784,663	2,798,490	2,676,584	2,685,170	2,464,097	2,263,789	2,082,082
Accumulated PW of Cashflows	99,918,773	42,288,683	45,253,288	48,037,953	50,836,441	53,513,035	56,208,205	58,672,302	60,836,081	66,918,773
CASH FLOW										
Income from Operations		3,555,749	4,235,001	4,319,619	4,840,806	4,866,315	5,432,294	5,346,210	5,256,407	5,804,287
Depreciation		(4,659,597)	(4,730,149)	(4,816,514)	(4,905,898)	(4,764,210)	(4,836,367)	(4,841,729)	(4,847,193)	(4,923,552)
Capital Expenditures		1,912,130	1,946,302	1,981,137	2,016,650	1,686,951	1,710,730	1,734,870	1,759,376	1,784,260
Change in Working Capital		(15,887)	(64,821)	(17,502)	(53,555)		(56,768)			(40,117)
Net Cash Flows		6,319,103	7,083,669	7,172,498	7,883,409	7,943,574	8,614,699	8,453,089	8,344,224	8,783,096
Period		11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
PW Factor										
Discount Rate with growth	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%
Discount Rate without growth	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%	5.67%
Period Present Worth Factor (PW)		0.45	0.42	0.392	0.365	0.341	0.318	0.297	0.277	0.258
PW of Cashflow		2,849,996	2,975,141	2,811,015	2,841,017	2,706,793	2,738,474	2,510,541	2,311,350	2,068,856
Accumulated PW of Cashflows	98,579,985	39,713,308	42,688,349	45,499,968	48,340,985	51,049,744	53,789,218	56,299,779	58,611,129	66,579,585
Rate Case Forecasts										
Rate Base										
Plant In Service	116,450,084.53	118,035,513.55	119,750,986.55	121,457,682.55	122,810,311.55	124,343,188.55	125,796,624.55	127,270,932.55	128,766,440.55	
Accumulated Book Depreciation	(24,541,874.01)	(26,645,495.54)	(28,17,536.87)	(30,784,366.27)	(32,854,424.07)	(34,907,418.05)	(36,970,651.88)	(39,048,379.59)	(41,106,227.97)	
Working Capital	(810,262.00)	(875,083.00)	(892,585.00)	(946,140.00)	(946,140.00)	(1,002,908.00)	(1,002,908.00)	(1,002,908.00)	(1,043,025.00)	
Accumulated Deferred Income Tax	(6,796,054.47)	(7,492,190.00)	(8,210,605.00)	(8,955,114.00)	(9,656,200.00)	(10,382,649.00)	(11,106,353.00)	(11,826,417.00)	(12,573,220.00)	
Rate Base	84,183,374.54	83,027,745.01	81,970,259.66	80,812,062.33	79,453,247.48	78,050,219.54	76,716,705.67	75,383,227.96	74,043,967.58	
Revenues	13,970,039.00	15,087,642.00	15,389,395.00	16,317,759.00	16,317,759.00	17,251,525.00	17,281,525.00	17,281,525.00	17,281,525.00	
O&M Expenses	3,814,865.00	3,779,879.00	3,648,672.00	3,971,376.00	4,098,174.00	4,279,050.00	4,364,305.00	4,504,038.00	4,648,405.00	
Book Depreciation	7,305,153.35	7,317,079.93	7,329,790.23	7,338,849.35	7,346,425.85	7,322,812.98	7,326,973.82	7,335,781.71	7,348,568.38	
Hydroelectric Interest Expense	685,226.00	672,051.00	649,651.00	627,995.00	607,062.00	586,816.00	567,165.00	548,354.00	530,070.00	
Book Income (Current Undercost)	7,254,794.65	8,368,632.47	8,561,282.67	9,384,538.65	9,271,147.15	10,152,776.02	10,023,281.17	9,884,845.29	10,466,136.62	
State & Federal Taxes @ 28.89%	2,124,800.00	2,417,698.00	2,473,355.00	2,711,193.00	2,711,193.00	2,878,434.00	2,933,137.00	2,885,736.00	2,855,589.00	
Net Operating Income	5,129,994.65	6,222,589.47	6,737,577.67	7,342,940.65	7,199,775.15	7,806,465.02	7,684,820.17	7,577,116.29	7,972,547.62	

Pennsylvania-American Water Company
 Exeter Wastewater System
 Wastewater System
 Potential Purchase - Investor-Owned Utility
 As of January 1, 2018

Base	Periods	12	11	14	15	16	17	18	19	20	Average
Income from Operations	Income from Operations	5,825,321	6,622,885	6,737,578	7,301,341	7,198,775	7,806,465	7,694,820	7,577,116	7,972,548	
Return on Rate Base	Return on Rate Base	7.04%	7.98%	8.22%	9.03%	9.06%	10.00%	10.03%	10.05%	10.77%	
Required Return	Required Return	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	
Authorized Return	Authorized Return	5,815,689	5,736,872	5,861,381	5,584,114	5,490,219	5,393,270	5,303,124	5,209,672	5,116,438	
After-tax Net Income	After-tax Net Income	5,229,985	5,950,934	6,087,938	6,678,846	6,592,713	7,219,639	7,177,555	7,028,760	7,442,470	
Taxes	Taxes	2,124,800	2,417,698	2,479,355	2,711,193	2,678,434	2,933,197	2,895,726	2,855,589	3,023,667	
Pre-tax Net Income	Pre-tax Net Income	7,354,785	8,368,632	8,567,293	9,389,539	9,271,147	10,152,776	10,073,281	9,884,349	10,466,137	
Interest Expense	Interest Expense	685,238	872,051	849,450	827,995	807,062	586,878	567,265	548,356	530,078	
Operating Income	Operating Income	8,050,021	9,040,883	9,210,923	10,022,534	9,878,208	10,799,603	10,580,546	10,432,705	10,996,215	
Operating Expenses	Operating Expenses	5,920,018	6,046,958	6,178,462	6,900,225	6,434,550	6,551,923	6,704,979	6,858,820	6,986,971	
Revenue Requirement	Revenue Requirement	13,970,039	15,087,642	15,389,395	16,312,758	16,312,758	17,291,525	17,291,525	17,291,525	17,983,186	
Required Return	Required Return	5,815,689	5,736,872	5,861,381	5,584,114	5,490,219	5,393,270	5,303,124	5,209,672	5,116,438	
Operating Expenses	Operating Expenses	5,920,018	6,046,958	6,178,462	6,900,225	6,434,550	6,551,923	6,700,979	6,858,820	6,986,971	
Revenue Requirement	Revenue Requirement	11,735,707	11,783,831	11,839,843	11,864,339	11,924,749	11,945,193	12,002,103	12,068,492	12,103,409	
Required Rate Increase	Required Rate Increase	-15.99%	-21.90%	-23.06%	-27.15%	-26.90%	-30.92%	-30.59%	-32.21%	-32.70%	
Proposed Rate Increase	Proposed Rate Increase	12	13	14	15	16	17	18	19	20	
	Rate Increase	0%	6%	0%	0%	0%	6%	0%	0%	0%	
	Scenario	4	0%	6%	0%	0%	6%	0%	0%	0%	
	No Rate Increase (Input	0	12	13	14	15	16	17	18	19	20
106,363,321.00	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	29% period 0, No Modest Rate Increase (Input	3									
	4)	4	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	
	Modest Rate Inc	5									
	Required Rate Increase (Input	6	9.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	
	Required Rate Increases: 29% period	6									
	6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility
Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return
Cost of Equity

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Value Line Investment Surveys
Water Industry
As of First Quarter 2018 (3-1-2018)

Company	Exchange	Ticker	ValueLine No	ValueLine Issue	Beta	Divided	Revenues		Cash Flows		Earnings		Dividends		Book Value						
							Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22	Est'd 14-16 to 20-22							
							Past 10 yrs	Past 5 yrs	Past 10 yrs	Past 5 yrs	Past 10 yrs	Past 5 yrs	Past 10 yrs	Past 5 yrs							
American States Water	NYSE	AWR	1764	1/12/2018	0.8	1.3%	8.5%	3.0%	4.8%	7.5%	8.5%	6.0%	10.0%	8.5%	7.0%	10.5%	7.8%	5.5%	5.0%	4.0%	
American Water	NYSE	AWK	1785	1/12/2018	0.66	2.0%	3.0%	3.5%	4.5%	23.0%	8.5%	6.5%	11.0%	8.5%	8.0%	10.0%	1.5%	4.0%	4.0%	5.5%	
Agua America	NYSE	WTR	1786	1/12/2018	0.75	2.2%	4.0%	2.8%	5.0%	7.5%	7.0%	6.0%	8.5%	7.0%	8.0%	9.8%	7.0%	7.5%	8.5%		
CalMacris Water	NYSE	CWT	1787	1/12/2018	0.8	1.6%	4.0%	2.8%	3.0%	9.0%	3.6%	5.5%	4.0%	3.0%	10.0%	1.5%	2.0%	7.5%	5.0%	5.0%	3.5%
Connecticut Water	HDQ	CTWS	1788	1/12/2018	0.65	2.3%	4.0%	3.0%	7.0%	6.5%	9.5%	4.5%	8.0%	12.0%	6.5%	2.5%	3.0%	5.5%	6.0%	9.0%	5.8%
Consolidated Water Company	HDQ	CWCO	1789	1/12/2018	1	2.7%	7.5%	1.5%	16.0%	3.0%	-1.5%	13.5%	-1.0%	-5.5%	21.0%	6.5%	0.5%	7.0%	7.5%	2.5%	4.0%
Midwest Water	HDQ	MSWK	1798	1/12/2018	0.8	3.3%	2.0%	3.8%	3.8%	4.5%	6.3%	8.0%	8.0%	9.0%	1.5%	1.5%	5.8%	4.0%	3.8%	4.5%	
SNW Corporation	NYSE	SNW	1791	1/12/2018	0.7	3.4%	5.0%	5.5%	9.0%	7.0%	12.0%	4.5%	8.0%	20.5%	7.0%	4.0%	3.0%	7.0%	5.5%	6.5%	4.5%
York Water	HDQ	YORW	1792	1/12/2018	0.8	2.8%	4.0%	3.5%	6.5%	6.5%	6.5%	8.0%	5.5%	6.0%	9.5%	3.5%	3.0%	8.0%	3.0%	3.5%	4.5%
Minimum					0.68	1.40%	2.00%	1.50%	3.00%	3.00%	-1.50%	4.50%	-1.00%	-5.50%	6.50%	1.50%	0.50%	5.00%	1.50%	2.00%	3.50%
Ytd Mean																					
Mean					0.77	2.02%	4.33%	3.00%	6.11%	7.82%	6.50%	6.84%	6.00%	8.29%	9.44%	4.00%	4.58%	7.38%	5.22%	5.12%	4.67%
Median					0.80	2.00%	4.00%	3.00%	5.00%	6.50%	6.50%	6.75%	8.50%	8.50%	3.75%	3.00%	7.50%	5.50%	5.00%	4.80%	
Maximum					1.00	2.70%	7.50%	5.50%	16.00%	23.00%	12.00%	13.50%	10.00%	20.50%	21.00%	8.00%	10.50%	10.00%	7.50%	8.00%	6.50%

Cost of Equity Dividend Growth Model

Dividend 2.02% mean Col 7

	Past 10 yrs	Past 5 yrs	Est'd 14-16 to 20-22	Beta
Growth				
Revenues	4.33%	3.00%	6.11%	
Cash Flow	6.50%	6.50%	6.84%	
Earnings	6.50%	8.39%	8.44%	
Dividends	3.75%	4.50%	7.28%	
Book Value	5.50%	5.11%	4.67%	input
Mean	5.22%	5.60%	6.51%	0.77

Growth 5.60% input

Cost of Equity Dividend Growth Model	2.02%
Dividend	2.02%
Growth	5.50%
Cost of Equity	7.52%

Cost of Equity Capital Asset Pricing Model (CAPM)

Risk Free Rate	4.85%	input	10 year treasury per PA PUC
Risk Premium			
Beta	0.77		
Risk Premium	7.07%	input	7.07% input
Size Premium			r _{size} = 1% per PA PUC
Micro	3.85%	input	
Small	1.50%	input	
Mid	1.13%	input	
Large	0.00%	input	
Size Premium	0.00%	input	
Cost of Equity	10.48%		

Cost of Equity	7.52%
Dividend Growth Model	10.48%
Capital Asset Pricing Model (CAPM)	8.93%
Mean	

Cost of Equity	8.98%	input
Growth	5.50%	input

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return

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**Water and Wastewater Cost of Capital
First Quarter 2018 (1-1-2018)**

As a 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	28%	Market	3.60%	Market	28.89%	71.11%	0.72%
Equity	72%	Market	8.99%	Market	0.0%	100.0%	6.47%
Total Capital r	100.0%						7.19%
Growth (g)							1.44%
Rate without Growth: $[(1+r)/(1+g)]-1$							5.67%

Weighted Cost of Capital (Capitization 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)
Debt	28%	Market	3.62%	Market	Not Applicable	Not Applicable	1.01%
Equity	72%	Market	8.99%	Market	Not Applicable	Not Applicable	6.47%
Total Capital r	100.0%						7.48%
Growth (g)							1.44%
Rate without Growth: $[(1+r)/(1+g)]-1$							5.96%

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	After-tax Market Capital Cost (2)*(3)
Debt	40%	Embedded	3.80%	Embedded	Not Applicable	Not Applicable	1.52%
Equity	60%	Embedded	8.99%	Market	Not Applicable	Not Applicable	5.39%
Total Capital r	100.0%						6.91%
Growth (g)						Not Applicable	0.00%
Rate without Growth: $[(1+r)/(1+g)]-1$							6.91%

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return
Cost of Debt

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**Value Line Investment Surveys
Water Industry
As of First Quarter 2018 (1-1-2018)**

	S&P Debt Rating	Long Term Debt	Long Term Interest	Long Term Interest Rate (embedded)
		Input Value Line	Input Value Line	(4) / (3)
American States Water		321.0	21.3	6.64%
American Water	A	6,672.0	349.0	5.23%
Aqua American		1,952.5	80.0	4.10%
California Water		519.7	35.0	6.73%
Connecticut Water		255.2	8.5	3.33%
Consolidated Water Company		-	-	
Middlesex Water		135.8	6.0	4.42%
SJW Corporation		431.0	20.0	4.64%
York Water		88.9	5.4	6.07%
		10,376.1	525.2	5.06%
Minimum				3.33%
wtd Mean				5.06%
Mean				5.15%
Median				4.94%
Maximum				6.73%

Debt Rating and Cost of Debt

Embedded 5.06% wtd mean col 5

Rating (S&P)

A Input

Market Cost of Debt @ S&P Rating

4.58% Input

Use

4.58% Input

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return
2016 Stocks, Bonds, Bills, and Inflation
Duff & Phelps

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Source: Ibbotson S&P 2018 Stock, Bonds, Bills, and Inflation Yearbook

Year	A-1 Large Company Stocks Total Returns Jan-Dec *	A-2 Large Company Stocks Income Returns Jan-Dec *	A-3 Large Company Stocks Capital Appreciation Returns Jan-Dec *	A-4 Small Company Stocks Total Returns Jan-Dec *	A-5 Long-Term Corporate Bonds Total Returns Jan-Dec *	A-6 Long-Term Government Bonds Total Returns Jan-Dec *	A-7 Long-Term Government Bonds Income Returns Jan-Dec *	A-8 Long-Term Government Bonds Capital Appreciation Returns Jan-Dec *	A-9 Long-Term Government Bonds Yields Jan-Dec *	A-10 Intermediate-Term Government Bonds Total Returns Jan-Dec *	A-11 Intermediate-Term Government Bonds Income Returns Jan-Dec *	A-12 Intermediate-Term Government Bonds Capital Appreciation Returns Jan-Dec *	A-13 Intermediate-Term Government Bonds Yields Jan-Dec *	A-14 U.S. Treasury Bills Total Returns Jan-Dec *	A-15 Inflation Jan-Dec *	A-16 Risk Premia (A1)-(A7)
1926	0.1162	0.0541	0.0572	0.0028	0.0737	0.0777	0.0373	0.0391	0.0354	0.0538	0.0378	0.0151	0.0361	0.0327	-0.0148	0.0789
1927	0.3749	0.0571	0.3091	0.2210	0.0744	0.0893	0.0341	0.0540	0.0316	0.0452	0.0349	0.0096	0.0340	0.0312	-0.0208	0.3408
1928	0.4361	0.0481	0.3788	0.3969	0.0284	0.0010	0.0322	-0.0312	0.0340	0.0092	0.0964	-0.0273	0.0401	0.0356	-0.0097	0.4039
1929	-0.0842	0.0398	-0.1191	-0.5136	0.0327	0.0342	0.0347	-0.0020	0.0340	0.0177	0.0407	0.0177	0.0362	0.0475	0.0020	-0.1189
1930	-0.2490	0.0457	-0.2848	-0.3815	0.0798	0.0466	0.0332	0.0128	0.0330	0.0672	0.0330	0.0333	0.0291	0.0241	-0.0603	-0.2822
1931	-0.4334	0.0535	-0.4707	-0.4975	-0.0185	-0.0531	0.0333	-0.0446	0.0407	-0.0232	0.0316	-0.0640	0.0412	0.0107	-0.0952	-0.4667
1932	-0.0819	0.0616	-0.1515	-0.0539	0.1082	0.1684	0.0369	0.1294	0.0315	0.0810	0.0363	0.0502	0.0304	0.0096	-0.1030	-0.1188
1933	0.5399	0.0639	0.4659	1.4287	0.1038	-0.0007	0.0312	-0.0314	0.0336	0.0183	0.0283	-0.0099	0.0325	0.0030	0.0051	0.5087
1934	-0.0144	0.0446	-0.0584	0.2422	0.1384	0.1003	0.0318	0.0676	0.0293	0.0900	0.0293	0.0597	0.0249	0.0203	0.0203	-0.0462
1935	0.4767	0.0495	0.4137	0.4019	0.0961	0.0498	0.0281	0.0214	0.0276	0.0701	0.0202	0.0494	0.0163	0.0017	0.0299	0.4486
1936	0.3392	0.0536	0.2792	0.6480	0.0674	0.0752	0.0277	0.0536	0.0255	0.0306	0.0344	0.0160	0.0129	0.0018	0.0121	0.3315
1937	-0.3503	0.0466	-0.3859	-0.5801	0.0275	0.0023	0.0266	-0.0248	0.0273	0.0156	0.0148	0.0005	0.0114	0.0031	0.0310	-0.3769
1938	0.3112	0.0483	0.2521	0.3280	0.0613	0.0553	0.0264	0.0283	0.0252	0.0623	0.0182	0.0437	0.0152	-0.0002	-0.0278	0.2848
1939	-0.0041	0.0469	-0.0545	0.0035	0.0397	0.0594	0.0240	0.0348	0.0226	0.0452	0.0131	0.0318	0.0098	0.0002	-0.0048	-0.0281
1940	-0.0978	0.0536	-0.1529	-0.0516	0.0339	0.0609	0.0223	0.0377	0.0194	0.0296	0.0090	0.0204	0.0057	0.0000	0.0096	-0.1201
1941	-0.1159	0.0671	-0.1786	-0.0900	0.0273	0.0093	0.0194	-0.0101	0.0204	0.0050	0.0067	-0.0017	0.0082	0.0006	0.0972	-0.1353
1942	0.0234	0.0679	0.1243	0.4451	0.0260	0.0322	0.0246	0.0074	0.0246	0.0194	0.0076	0.0117	0.0072	0.0027	0.0829	-0.0012
1943	0.2590	0.0624	0.1945	0.8837	0.0283	0.0208	0.0244	-0.0087	0.0248	0.0281	0.0156	0.0123	0.0145	0.0035	0.0316	0.2346
1944	0.1975	0.0548	0.1380	0.5372	0.0473	0.0281	0.0246	0.0032	0.0246	0.0180	0.0144	0.0035	0.0140	0.0093	0.0211	0.1729
1945	0.3611	0.0497	0.3072	0.7361	0.0408	0.1073	0.0234	0.0827	0.0199	0.0222	0.0119	0.0102	0.0103	0.0033	0.0225	0.3377
1946	-0.0807	0.0409	-0.1187	-0.1163	0.0172	-0.0010	0.0204	-0.0215	0.0212	0.0100	0.0108	-0.0008	0.0112	0.0035	0.1816	-0.1011
1947	0.0571	0.0548	0.0000	0.0092	-0.0234	-0.0262	0.0213	-0.0470	0.0243	0.0091	0.0121	-0.0030	0.0134	0.0050	0.0901	0.0358
1948	0.0550	0.0608	-0.0065	-0.0211	0.0414	0.0340	0.0240	0.0096	0.0237	0.0185	0.0156	0.0027	0.0151	0.0081	0.0271	0.0310
1949	0.1879	0.0750	0.1026	0.1975	0.0331	0.0645	0.0225	0.0415	0.0209	0.0232	0.0136	0.0095	0.0123	0.0110	-0.0180	0.1654
1950	0.3171	0.0677	0.2178	0.3875	0.0212	0.0006	0.0212	-0.0206	0.0224	0.0070	0.0139	-0.0069	0.0162	0.0120	0.0579	0.2959
1951	0.2402	0.0693	0.1646	0.0780	-0.0269	-0.0393	0.0238	-0.0627	0.0269	0.0096	0.0196	-0.0163	0.0217	0.0149	0.0587	0.2164
1952	0.1837	0.0593	0.1178	0.0303	0.0352	0.0116	0.0266	-0.0148	0.0279	0.0163	0.0219	-0.0057	0.0235	0.0166	0.0088	0.1571
1953	-0.0099	0.0546	-0.0662	-0.0649	0.0341	0.0364	0.0284	0.0047	0.0274	0.0323	0.0255	0.0061	0.0218	0.0182	0.0062	-0.0383
1954	0.5262	0.0621	0.4502	0.6058	0.0539	0.0719	0.0279	0.0435	0.0272	0.0268	0.0160	0.0108	0.0172	0.0086	-0.0050	0.4983
1955	0.3156	0.0456	0.2640	0.2044	0.0048	-0.0129	0.0275	-0.0407	0.0295	-0.0065	0.0245	-0.0310	0.0280	0.0157	0.0037	0.2881
1956	0.0656	0.0383	0.0262	0.0428	-0.0681	-0.0559	0.0299	-0.0846	0.0345	-0.0042	0.0305	-0.0345	0.0363	0.0246	0.0286	0.0357
1957	-0.1078	0.0384	-0.1431	-0.1457	0.0871	0.0746	0.0344	0.0382	0.0323	0.0784	0.0359	0.0405	0.0284	0.0314	0.0302	-0.1422
1958	0.4336	0.0438	0.3806	0.6489	-0.0222	-0.0609	0.0327	-0.0923	0.0382	-0.0129	0.0293	-0.0417	0.0381	0.0154	0.0176	0.4009
1959	0.1196	0.0331	0.0848	0.1640	-0.0087	-0.0226	0.0401	-0.0620	0.0447	-0.0039	0.0418	-0.0454	0.0498	0.0295	0.0150	0.0795
1960	0.0047	0.0326	-0.0297	-0.0329	0.0907	0.1378	0.0426	0.0929	0.0380	0.1176	0.0415	0.0742	0.0331	0.0266	0.0148	-0.0379
1961	0.2689	0.0348	0.2313	0.3209	0.0482	0.0097	0.0383	-0.0786	0.0415	0.0185	0.0354	-0.0172	0.0384	0.0213	0.0067	0.2306
1962	-0.0873	0.0288	-0.1110	-0.1190	0.0795	0.0689	0.0400	0.0278	0.0395	0.0566	0.0373	0.0273	0.0350	0.0273	0.0122	-0.1273
1963	0.2280	0.0361	0.1889	0.2357	0.0219	0.0121	0.0389	-0.0270	0.0417	0.0164	0.0371	-0.0210	0.0404	0.0312	0.0165	0.1891
1964	0.1644	0.0333	0.1297	0.2352	0.0477	0.0351	0.0415	-0.0072	0.0423	0.0404	0.0400	-0.0003	0.0403	0.0354	0.0119	0.1233
1965	0.1245	0.0321	0.0906	0.4175	-0.0046	0.0071	0.0419	-0.0345	0.0450	0.0120	0.0415	-0.0310	0.0490	0.0399	0.0192	0.0826
1966	-0.1006	0.0311	-0.1309	-0.0701	0.0020	0.0365	0.0449	-0.0106	0.0455	0.0469	0.0493	-0.0041	0.0479	0.0476	0.0335	-0.1455
1967	0.2398	0.0364	0.2090	0.8357	-0.0495	-0.0918	0.0459	-0.1355	0.0556	0.0101	0.0488	-0.0383	0.0577	0.0421	0.0904	0.1939
1968	0.1106	0.0318	0.0766	0.3597	0.0257	-0.0026	0.0550	-0.0551	0.0598	0.0454	0.0549	-0.0099	0.0596	0.0521	0.0472	0.0556

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Year	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	A-15	A-16
	Large Company Stocks	Large Company Stocks	Large Company Stocks Capital	Small Company Stocks	Long-Term Corporate Bonds	Long-Term Government Bonds	Long-Term Government Bonds	Long-Term Government Bonds Capital	Long-Term Government Bonds	Intermediate-Term Government Bonds	Intermediate-Term Government Bonds	Intermediate-Term Government Bonds Capital	Intermediate-Term Government Bonds	U.S. Treasury Bills	Inflation	Risk Premium
	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Total Returns Jan-Dec *	Total Returns Jan-Dec *	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Yields Jan-Dec *	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Yields Jan-Dec *	Total Returns Jan-Dec *	Jan-Dec *	(A-1)-(A-7)
1969	-0.0850	0.0304	-0.1142	-0.2505	-0.0809	-0.0507	0.0595	-0.1083	0.0687	-0.0074	0.0565	-0.0727	0.0829	0.0658	0.0611	-0.1445
1970	0.0401	0.0341	0.0016	-0.1743	0.1837	0.1211	0.0674	0.0484	0.0648	0.1686	0.0749	0.0871	0.0590	0.0652	0.0549	-0.0273
1971	0.1491	0.0333	0.1079	0.1650	0.1101	0.1323	0.0632	0.0661	0.0597	0.0872	0.0575	0.0272	0.0525	0.0439	0.0336	0.0799
1972	0.1898	0.0309	0.1563	0.0443	0.0726	0.0569	0.0587	-0.0035	0.0599	0.0516	0.0575	-0.0075	0.0585	0.0384	0.0341	0.1311
1973	-0.1466	0.0286	-0.1737	-0.3090	0.0114	-0.0111	0.0651	-0.0770	0.0726	0.0461	0.0658	-0.0219	0.0679	0.0693	0.0880	-0.2117
1974	-0.2647	0.0969	-0.2972	-0.1995	-0.0306	0.0435	0.0727	-0.0345	0.0760	0.0569	0.0724	-0.0199	0.0712	0.0800	0.1220	-0.3374
1975	0.3720	0.0537	0.3155	0.5282	0.1464	0.0920	0.0799	0.0073	0.0805	0.0783	0.0735	0.0012	0.0719	0.0580	0.0701	0.2921
1976	0.2384	0.0438	0.1915	0.5738	0.1865	0.1675	0.0789	0.0807	0.0721	0.1287	0.0710	0.0525	0.0600	0.0508	0.0481	0.1595
1977	-0.0718	0.0431	-0.1150	0.2538	0.0171	-0.0089	0.0714	-0.0788	0.0803	0.0141	0.0649	-0.0515	0.0751	0.0512	0.0677	-0.1432
1978	0.0656	0.0533	0.0106	0.2346	-0.0007	-0.0118	0.0790	-0.0905	0.0898	0.0349	0.0783	-0.0449	0.0883	0.0718	0.0903	-0.0134
1979	0.1844	0.0571	0.1231	0.4346	-0.0418	-0.0123	0.0886	-0.0984	0.1012	0.0409	0.0604	-0.0507	0.1033	0.1038	0.1331	0.0958
1980	0.3242	0.0573	0.2577	0.3988	-0.0276	-0.0395	0.0997	-0.1400	0.1199	0.0391	0.1055	-0.0681	0.1245	0.1124	0.1240	0.2245
1981	-0.0491	0.0489	-0.0972	0.4134	-0.0124	0.0186	0.1155	-0.1033	0.1334	0.0945	0.1297	-0.0455	0.1396	0.1471	0.0894	-0.1646
1982	0.2141	0.0550	0.1476	0.2801	0.4256	0.4036	0.1350	0.2395	0.1095	0.2910	0.1281	0.1423	0.0990	0.1054	0.0387	0.0791
1983	0.2251	0.0500	0.1727	0.3967	0.0626	0.0065	0.1038	-0.0982	0.1197	0.0741	0.1095	-0.0330	0.1141	0.0880	0.0380	0.1213
1984	0.0627	0.0456	0.0139	-0.0667	0.1686	0.1548	0.1174	0.0232	0.1170	0.1402	0.1168	0.0122	0.1104	0.0985	0.0395	-0.0547
1985	0.3216	0.0510	0.2634	0.2466	0.3009	0.3097	0.1125	0.1784	0.0956	0.2033	0.1029	0.0901	0.0855	0.0772	0.0377	0.2081
1986	0.1847	0.0374	0.1463	0.0685	0.1985	0.2453	0.0898	0.1499	0.0789	0.1514	0.0772	0.0699	0.0685	0.0616	0.0113	0.0949
1987	0.0523	0.0364	0.0203	-0.0930	-0.0027	-0.0271	0.0792	-0.1069	0.0920	0.0290	0.0747	-0.0475	0.0832	0.0547	0.0441	-0.0269
1988	0.1681	0.0417	0.1241	0.2287	0.1070	0.0567	0.0897	0.0036	0.0918	0.0610	0.0824	-0.0226	0.0917	0.0635	0.0442	0.0784
1989	0.3149	0.0385	0.2726	0.1018	0.1623	0.1811	0.0881	0.0862	0.0816	0.1329	0.0846	0.0434	0.0794	0.0837	0.0465	0.2268
1990	-0.0317	0.0336	-0.0656	-0.2156	0.0678	0.0618	0.0819	-0.0261	0.0844	0.0973	0.0815	0.0102	0.0770	0.0781	0.0611	-0.1136
1991	0.3055	0.0382	0.2631	0.4463	0.1989	0.1930	0.0822	0.1010	0.0730	0.1546	0.0743	0.0736	0.0597	0.0540	0.0306	0.2233
1992	0.0767	0.0303	0.0446	0.2335	0.0939	0.0805	0.0726	0.0034	0.0726	0.0719	0.0627	0.0064	0.0610	0.0351	0.0290	0.0041
1993	0.0999	0.0283	0.0706	0.2098	0.1319	0.1824	0.0717	0.1071	0.0654	0.1124	0.0553	0.0556	0.0522	0.0290	0.0275	0.0282
1994	0.0131	0.0282	-0.0154	0.0311	-0.0576	-0.0777	0.0659	-0.1429	0.0799	-0.0514	0.0607	-0.1114	0.0780	0.0390	0.0267	-0.0528
1995	0.3743	0.0291	0.3411	0.3446	0.2720	0.3167	0.0760	0.2304	0.0603	0.1680	0.0669	0.0966	0.0538	0.0560	0.0254	0.2983
1996	0.2307	0.0254	0.2026	0.1762	0.0140	-0.0083	0.0618	-0.0737	0.0673	0.0210	0.0582	-0.0390	0.0616	0.0521	0.0332	0.1689
1997	0.3336	0.0211	0.3101	0.2278	0.1295	0.1585	0.0664	0.0851	0.0602	0.0838	0.0614	0.0195	0.0573	0.0528	0.0170	0.2672
1998	0.2858	0.0168	0.2667	-0.0731	0.1076	0.1306	0.0583	0.0689	0.0542	0.1210	0.0529	0.0466	0.0468	0.0486	0.0161	0.2275
1999	0.2104	0.0136	0.1953	0.2979	-0.0745	-0.0896	0.0557	-0.1435	0.0682	-0.0177	0.0530	-0.0706	0.0645	0.0468	0.0288	0.1547
2000	-0.0911	0.0110	-0.1014	-0.0359	0.1287	0.2148	0.0650	0.1436	0.0558	0.1259	0.0619	0.0594	0.0507	0.0589	0.0339	-0.1561
2001	-0.1188	0.0118	-0.1304	0.2277	0.1065	0.0370	0.0553	-0.0189	0.0575	0.0762	0.0370	0.0323	0.0442	0.0383	0.0155	-0.1741
2002	-0.2210	0.0139	-0.2337	-0.1328	0.1633	0.1784	0.0559	0.1169	0.0484	0.1293	0.0398	0.0865	0.0261	0.0165	0.0238	-0.2769
2003	0.2870	0.0200	0.2638	0.6070	0.0527	0.0145	0.0480	-0.0336	0.0511	0.0240	0.0285	-0.0048	0.0297	0.0102	0.0188	0.2390
2004	0.1087	0.0175	0.0899	0.1839	0.0872	0.0851	0.0502	0.0326	0.0484	0.0225	0.0328	-0.0107	0.0347	0.0120	0.0326	0.0585
2005	0.0491	0.0184	0.0300	0.0569	0.0587	0.0781	0.0469	0.0302	0.0461	0.0136	0.0392	-0.0258	0.0434	0.0298	0.0342	0.0022
2006	0.1580	0.0201	0.1362	0.1617	0.0324	0.0119	0.0468	-0.0364	0.0491	0.0314	0.0454	-0.0151	0.0465	0.0480	0.0254	0.1112
2007	0.0549	0.0196	0.0353	-0.0522	0.0260	0.0388	0.0486	0.0469	0.0450	0.1005	0.0444	0.0533	0.0328	0.0466	0.0408	0.0063
2008	-0.3700	0.0192	-0.3849	-0.3672	0.0878	0.2587	0.0445	0.2050	0.0303	0.1311	0.0296	0.0992	0.0126	0.0160	0.0009	-0.4145
2009	0.2646	0.0248	0.2345	0.2809	0.0302	-0.1490	0.0947	-0.1825	0.0458	-0.0240	0.0201	-0.0442	0.0242	0.0110	0.0272	0.2299
2010	0.1506	0.0202	0.1278	0.3126	0.1244	0.1014	0.0425	0.0589	0.0414	0.0712	0.0192	0.0516	0.0170	0.0012	0.0150	0.1081
2011	0.0211	0.0213	0.0000	-0.0326	0.1795	0.2823	0.0381	0.2374	0.0248	0.0946	0.0158	0.0779	0.0059	0.0004	0.0296	-0.0170

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	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	A-15	A-16
	Large Company Stocks	Large Company Stocks	Large Company Stocks Capital	Small Company Stocks	Long-Term Corporate Bonds	Long-Term Government Bonds	Long-Term Government Bonds	Long-Term Government Bonds Capital	Long-Term Government Bonds	Intermediate-Term Government Bonds	Intermediate-Term Government Bonds	Intermediate-Term Government Bonds Capital	Intermediate-Term Government Bonds	U.S. Treasury Bills	Inflation	Risk Premia
	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Total Returns Jan-Dec *	Total Returns Jan-Dec *	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Yields Jan-Dec *	Total Returns Jan-Dec *	Income Returns Jan-Dec *	Appreciation Returns Jan-Dec *	Yields Jan-Dec *	Total Returns Jan-Dec *	Jan-Dec *	(A-1)-(A-7)
2012	0.1600	0.0250	0.1341	0.1824	0.1068	0.0331	0.0240	0.0088	0.0241	0.0207	0.0058	0.0148	0.0046	0.0006	0.0174	0.1360
2013	0.3239	0.0248	0.2960	0.4507	-0.0707	-0.1278	0.0288	-0.1570	0.0378	-0.0968	0.0102	-0.0468	0.0149	0.0002	0.0151	0.2951
2014	0.1369	0.0216	0.1139	0.0292	0.1728	0.2478	0.0341	0.2093	0.0246	0.0300	0.0163	0.0135	0.0155	0.0002	0.0076	0.3028
2015	0.0138	0.0210	-0.0073	-0.0360	-0.0102	-0.0065	0.0247	-0.0311	0.0268	0.0178	0.0151	0.0029	0.0159	0.0002	0.0073	-0.0108
2016	0.1196	0.0226	0.0954	0.2565	0.0670	0.0175	0.0230	-0.0040	0.0272	0.0192	0.0136	0.0058	0.0185	0.0020	0.0207	0.0966
2017	0.2183	0.0221	0.1942	0.1119	0.1225	0.0624	0.0267	0.0351	0.0254	0.0164	0.0193	-0.0029	0.0211	0.0080	0.0211	0.1916
Average	0.1186	0.0387	0.8785	0.1881	0.0637	0.0888	0.0488	0.0077	0.0504	0.0814	0.0441	0.0867	0.0437	0.0348	0.0287	0.0887
Median	0.1307	0.0383	0.1063	0.1832	0.0480	0.0388	0.0417	0.0033	0.0439	0.0336	0.0376	0.0832	0.0372	0.0297	0.0270	0.0787
High	0.8388	0.0877	0.4688	1.4287	0.4256	0.6038	0.1360	0.2385	0.1234	0.2910	0.1287	0.1423	0.1398	0.1471	0.1816	0.6087
Low	-0.4334	0.0110	-0.4707	-0.6801	-0.8800	-0.1480	0.0194	-0.1828	0.0194	-0.0601	0.0868	-0.1114	0.0846	-0.0002	-0.1038	-0.4887
Last 5 year (60 months)																
Average	0.1625	0.0224	0.1384	0.1625	0.0663	0.0387	0.0273	0.0106	0.0294	0.0083	0.0148	-0.0055	0.0174	0.0021	0.0144	0.1360
Median	0.1369	0.0221	0.1139	0.1119	0.0870	0.0178	0.0287	-0.0040	0.0288	0.0178	0.0181	0.0029	0.0169	0.0002	0.0161	0.1028
High	0.3238	0.0248	0.2980	0.4807	0.1728	0.2478	0.0341	0.2083	0.0378	0.0300	0.0183	0.0136	0.0211	0.0080	0.0211	0.2861
Low	0.0138	0.0210	-0.0073	-0.0360	-0.0707	-0.1278	0.0230	-0.1870	0.0246	-0.0388	0.0102	-0.0468	0.0149	0.0002	0.0073	-0.0108

* Compound Annual Return

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility
Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return
Capital Structure

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Value Line Investment Surveys
Water Industry
As of First Quarter 2018 (1-1-2018)

Company	Exchange	Ticker	Value Line No.	Value Line Issue	Total Debt	Market Debt	Long Term Debt	Long Term Interest	Long Term Interest Rate (embedded)	Proportion of Debt	Book Debt	Book Equity	Preferred Stock	% Preferred	Shares Outstanding	Price per Share	Market Equity	Portion Market Equity	Capitalization	Total Market Capital
					\$ Millions	%	\$ Millions	\$ Millions	%	%	\$	\$	\$	%	\$	\$	\$ Millions	%	\$	\$ Millions
American States Water	NYSE	AWR	1784	1/12/2018	367.3	15.08%	321.0	21.3	6.54%	38.0%	40.0%	60.0%	-	0.00%	36,679,750	56.4	2,068.7	84.92%	Mid Cap	1,436.0
American Water	NYSE	AWK	1785	1/12/2018	7,462.0	31.94%	6,672.0	349.0	5.23%	55.0%	38.5%	46.5%	9.0	0.04%	178,375,400	88.08	15,889.7	68.02%	Large Cap	23,361.7
Aqua American	NYSE	WTR	1786	1/12/2018	2,058.2	28.06%	1,952.5	88.0	4.30%	50.0%	47.0%	53.0%	-	0.00%	177,680,980	38.65	6,847.7	76.94%	Large Cap	8,925.9
California Water	NYSE	CWT	1787	1/12/2018	750.8	25.92%	518.7	35.0	6.73%	44.0%	43.0%	57.0%	-	0.00%	48,015,000	44.70	2,146.3	74.08%	Mid Cap	2,897.1
Connecticut Water	NDQ	CTWS	1788	1/12/2018	283.2	27.60%	255.2	8.5	3.33%	47.0%	46.5%	58.5%	0.8	0.08%	12,068,290	57.13	689.5	72.31%	Small Cap	953.5
Consolidated Water Company	NDQ	CWCO	1789	1/12/2018	0.4	0.21%	-	-	-	0.0%	0.0%	100.0%	-	0.00%	14,901,100	12.80	187.8	99.79%	Small Cap	188.2
Midwest Water	NDQ	MSEK	1790	1/12/2018	166.8	20.64%	135.8	6.0	4.42%	38.0%	37.5%	62.0%	2.4	0.30%	16,340,960	38.09	839.0	79.06%	Small Cap	888.2
SNW Corporation	NYSE	SNW	1791	1/12/2018	431.0	24.86%	431.0	20.0	4.64%	49.0%	49.0%	51.0%	-	0.00%	20,520,560	63.47	1,302.5	75.14%	Mid Cap	1,793.5
York Water	NDQ	YORW	1792	1/12/2018	88.9	17.17%	88.8	5.4	6.87%	43.0%	43.0%	87.0%	-	0.00%	12,859,320	33.35	428.8	82.83%	Small Cap	517.8
Total					11,588.6	27.71%	10,376.1	523.2	5.06%					12.2	0.03%		30,218.9	72.26%		41,820.7
Minimum						0.21%			3.33%	0.00%	0.00%	46.50%		0.00%				68.02%		
1st Mean						27.71%			5.06%					0.03%				72.26%		
Mean						20.72%			5.15%	40.44%	38.84%	60.00%		0.05%				78.23%		
Median						23.06%			4.94%	44.80%	43.00%	57.00%		0.00%				76.94%		
Maximum						31.94%			6.73%	55.00%	53.50%	100.00%		0.30%				89.79%		

Water Industry Capital Structure

Capital Structure	Market		Embedded	
	Proportion	Reference	Proportion	Reference
Debt	27.71%	1st mean col 7	40.44%	mean col 11
Preferred	0.03%	1st mean col 15	0.05%	mean col 15
Equity	72.26%	1st mean col 18	60.00%	mean col 13
Total	100.00%		100.00%	
Use				
Debt	28%	input	40%	input
Equity	72%	input	60%	input
Total	100%		100%	

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility
Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return
Income Tax Rate

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**Value Line Investment Surveys
Water Industry
As of First Quarter 2018 (1-1-2018)**

Company	Exchange	Ticker	Valueline No.	Valueline Issue	Tax Rate			
					2016	2017	2018	20-22
Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line
American States Water	NYSE	AWR	1784	1/12/2018	36.8%	36.5%	21.0%	21.0%
American Water	NYSE	AWK	1785	1/12/2018	39.2%	40.0%	21.0%	21.0%
Aqua American	NYSE	WTR	1786	1/12/2018	8.2%	9.0%	9.0%	10.0%
California Water	NYSE	CWT	1787	1/12/2018	35.5%	35.0%	21.0%	21.0%
Connecticut Water	NDQ	CTWS	1788	1/12/2018	9.9%	19.0%	20.0%	20.0%
Consolidated Water Company	NDQ	CWCO	1789	1/12/2018				
Middlesex Water	NDQ	MSEX	1790	1/12/2018	34.0%	32.0%	21.0%	21.0%
SIW Corporation	NYSE	SIW	1791	1/12/2018	38.8%	38.0%	21.0%	21.0%
York Water	NDQ	YORW	1792	1/12/2018	31.3%	24.0%	21.0%	21.0%
Minimum					8.20%	9.00%	9.00%	10.00%
wtd Mean					29.21%	29.19%	19.38%	19.50%
Mean					34.75%	33.50%	21.00%	21.00%
Median					39.20%	40.00%	21.00%	21.00%
Maximum								
Historical	34.00%	Median						
Marginal	35.00%	AUS Input	21.00%	AUS Input				
US 50-state average	4.91%	AUS Input	4.91%	AUS Input				
Pennsylvania	9.99%	AUS Input	9.99%	AUS Input				
Tax Rate	41.49%	Calculated	28.89%	Calculated				

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Income Approach
Cost of Capital / Required Return

Value Line Investment Surveys
Water Industry
January 2018

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Part 3
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&
Reports

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ESPECIALLY NOTEWORTHY:

This week, Nutanix, Inc., which offers an enterprise cloud operating system that merges traditional servers, virtualization, storage and networking into one integrated solution, is making its debut in the Value Line Investment Survey on page 1828.

We also are welcoming Interactive Brokers Group, Inc., a holding company, whose primary asset is a 17.1% stake in IBG LLC, which, in turn, owns operating subsidiaries, to the Brokers & Exchanges Industry. Page 1798.

The changes at General Electric continue. To wit, the new CEO, John Flannery, has completed a comprehensive overview of operations, and announced a slew of changes, including a 50% reduction in the quarterly dividend payout. Please turn to page 1753 to learn more.

Cornerstone OnDemand, Inc., recently completed a strategic review process, aided by Goldman Sachs and Centerview Partners. The end result was that Cornerstone accepted an investment of \$300 million from a private-equity firm. You can read more about the deal and the stock's appealing long-term prospects on page 1819.

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★★ Rank 1 (Highest) for Timeliness.
★ Rank 2 (Above Average).

In three parts: Part 1 is the Summary & Index. Part 2 is Selection & Opinion. This is Part 3, Ratings & Reports. Volume LXXIII, No. 22

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Value Line's estimates of sales and earnings growth for individual companies are derived by correlating sales, earnings, and dividends to appropriate components or subcomponents of the Gross Domestic Product, presented below. A more detailed forecast appears periodically in *Selection & Opinion*.

broad-based GDP deflator will advance by 2.0%-2.5% per year, on average. Long-term interest rates on AAA corporate bonds are projected to average just over 5.0% in the years 2020-2022. We expect the Federal Reserve to pursue moderately tighter monetary policies except in years in which the economy is slowing or there is a recession. Based on these assumptions, the Gross Domestic Product will average about \$23,400 billion in the years 2020-2022, a level that is just over 25% above the 2016 total of \$18,625 billion.

HYPOTHESIZED ECONOMIC ENVIRONMENT 3 TO 5 YEARS HENCE

The hypothesized 2020-2022 economic environment into which earnings are forecast is as follows: Unemployment will average 4.0%-4.5% of the national labor force. There will be no major war in progress at that time. Industrial production will be expanding by 2.0%-2.5% per year. Inflation will continue to be modest. Prices as measured by the

Things may turn out differently. But in the absence of knowledge of the future, we use the above assumptions, which appear to be most plausible. Thus we are able to apply a common economic environment to all stocks for the purpose of measuring relative growth potential.

THESE ARE THE NATIONAL INCOME SERIES TO WHICH VALUE LINE SALES, EARNINGS, AND DIVIDEND ESTIMATES ARE CORRELATED

ANNUAL STATISTICS	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*	2018*	2020-22*
Gross Domestic Product (\$Bill.)	13868	14480	14720	14418	14858	15518	16165	16682	17428	18121	18625	19387	20382	23380
Real GDP (2009 Chained \$Bill.)	14815	14877	14834	14418	14779	15021	15355	15612	15982	16387	16716	17093	17690	18681
Total Consumption (\$Bill.)	9815	10036	9999	9849	10036	10284	10413	10585	10888	11264	11572	11883	12221	13146
Nonresidential Fixed Investment (\$Bill.)	1840	1948	1934	1633	1674	1803	1964	2039	2173	2224	2211	2308	2402	2667
Industrial Prod. (% Change, Annualized)	-2.2	2.5	-3.4	-11.3	5.7	3.3	2.8	1.9	3.7	-2.7	-0.1	2.2	2.5	2.2
Housing Starts (Mill. Units)	1.81	1.34	0.90	0.55	0.59	0.61	0.78	0.93	1.00	1.11	1.18	1.21	1.26	1.40
Total Light Vehicle Sales (Mill. Units)	16.5	18.1	18.2	10.4	11.6	12.7	14.4	15.5	18.4	17.4	17.5	17.1	17.0	18.5
Personal Savings Rate (%)	3.4	3.0	5.0	6.1	5.6	5.7	7.6	4.8	4.8	8.1	4.9	3.5	3.4	4.7
National Unemployment Rate (%)	4.6	4.6	5.8	9.3	9.8	8.9	8.1	7.4	6.2	5.3	4.9	4.4	4.2	4.3
AAA-Corp Bond Rate (%)	5.8	5.6	5.6	5.3	4.9	4.6	3.7	4.2	4.2	3.9	3.7	3.9	4.4	5.2
10-Year Treasury Note Rate (%)	4.8	4.6	3.7	3.3	3.2	2.8	1.8	2.4	2.5	2.2	1.9	2.4	2.8	3.6
3-Month Treasury Bill Rate (%)	4.7	4.4	1.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.9	1.5	2.8
ANNUAL RATES OF CHANGE														
Real GDP	2.7	1.8	-0.3	-2.8	2.5	1.6	2.2	1.7	2.4	2.8	1.9	2.3	2.9	2.2
GDP Deflator	3.1	2.7	1.9	0.8	1.2	2.0	1.8	1.6	1.8	1.1	1.5	1.8	2.2	2.3
Consumer Price Index	3.2	2.9	3.8	-0.3	1.8	3.1	2.1	1.5	1.6	0.5	1.8	1.8	2.1	2.5
QUARTERLY ANNUALIZED RATES		2016				2017				2018				
	1st	2nd	3rd	4th	1st	2nd	3rd*	4th*	1st*	2nd*	3rd*	4th*		
Gross Domestic Product (\$Bill.)	18325	18538	15729	18906	19057	19250	19499	19741	18867	20225	20486	20760		
Real GDP (2009 Chained \$Bill.)	16572	16664	15778	16851	16901	17031	17157	17284	17391	17520	17659	17790		
Total Consumption (\$Bill.)	11490	11597	11618	11702	11757	11839	11924	12012	12085	12179	12263	12346		
Nonresidential Fixed Investment (\$Bill.)	2188	2205	2224	2225	2263	2282	2320	2346	2389	2390	2413	2437		
Industrial Production (% Change, Annualized)	-1.3	-0.7	0.8	0.7	1.5	5.6	-1.5	3.0	2.5	2.3	2.5	2.5		
Housing Starts (Mill. Units)	1.15	1.16	1.15	1.25	1.24	1.17	1.17	1.25	1.20	1.25	1.27	1.30		
Total Light Vehicle Sales (Mill. Units)	17.3	17.2	17.5	17.8	17.1	18.8	17.1	17.3	17.0	17.0	17.0	17.0		

*Estimated

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INDUSTRY TIMELINESS: 79 (of 97)

Traditionally, equities of water utilities have been purchased for safety, income, and well-defined earnings. These stocks would lag the market during rallies and outperform during downturns. Investors were also willing to accept less total return in exchange for low volatility and better defined earnings and dividend prospects. This pattern has changed in the recent past.

Almost every member of the water group is in the midst of a large construction program aimed at replacing aging pipelines and waste treatment facilities. In general, balance sheets are only rated about average, as they have needed to add debt to fund capital investments.

The regulatory climate of the states where a utility operates plays a significant role in its earnings and dividends potential. This is because state authorities determine the rate of return on utilities' investment in new plant. Unlike the situation faced by their cousins, electric utilities, the relationship between regulators and water companies has been positive.

Size Mattered Last Quarter

One of the major developments over the past three months was the dichotomy in the performance of the different stocks in the Water Utility Industry. The five largest equities by market capitalization, had these results: *American States Water* (+10.4%), *American Water Works* (+9.0%), *Aqua America* (+14.5%), *California Water* (+12.7%), and *SJW Group* (+10.2%). The four stocks that had a market cap that averaged from \$200 million to \$750 million posted these numbers; *Connecticut Water* (-6.2%), *Consolidated Water* (-3.0%), *Middlesex Water* (-3.4%), and *York Water* (-5.1%). A few conclusions can be drawn from the stark differences in returns. First, the five mid- to large-cap stocks all outperformed the S&P 500 Index by a wide margin. Second, not only did the four small stocks not keep pace with their larger peers, but they all had a negative price performance.

Since the smaller companies didn't have earnings misses nor lower guidance, the evidence seems to suggest that there is a greater demand for large-cap stocks. This makes sense when considering the makeup of the market. Large institutions, pension and mutual funds, and ETFs, generally shy away from small-cap stocks. Why? The answer is these participants typically take positions in companies that would represent 2%-3% of their portfolio. For a \$5 billion portfolio, that works out to an average stake of \$125 million. That would represent a 28% ownership in *York Water*. Institutional investors don't want to have that type of exposure to any one company. In addition, just the mechanics of trying to purchase more than a 25% stake in a company would also almost surely drive up the price of the outstanding shares considerable. Plus, exiting such a position would have the opposite effect.

Large Construction Programs

Following several decades of neglect, the nation's water infrastructure was left in terrible condition. Pipeline systems were antiquated and waste facilities needed to be upgraded and expanded to handle greater demand. The neglect was not purposeful. It was mostly caused by regulators not wanting to raise customers (i.e. voters) water bills, and utilities not wanting to make sizable investments, in which there was uncertainty regarding the what level of return they would be granted. Fortu-

nately, the two sides got together and realized that massive amount of funds would be required to modernize the domestic water delivery systems. Though they are playing catch up, most believe the industry and regulators have done a decent job of addressing the issue. Fixing the water infrastructure will still take many years, but the commitment has been made to resolve the problem.

Regulation Remains Key

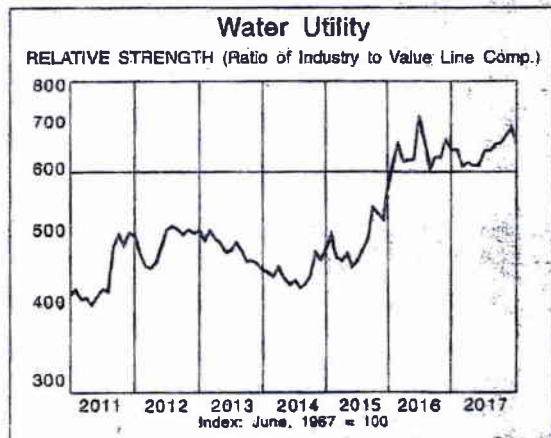
Perhaps the most important reason behind the strong operational performance turned in by this group is due to the overall national regulatory climate. State authorities realized that the past history of keeping water consumers bills too low came at a high cost. Most public utility commissions understood that they would have to work in partnership with the industry to make sure that the burdensome construction programs were undertaken. Since regulators literally legislate what a utility is allowed to earn on its investment, their importance cannot be overstated.

Conclusion

Shares of water utilities are currently trading in uncharted territory. Aided most likely by strong institutional demand, and a limited supply of equity, the large- and mid-cap stocks in the group have done extremely well. Of the five equities that are of this size, four are ranked 2 (Above Average) for Timeliness and the other garners a 3 (Average) ranking. Of the small-cap members of this group, one is timely, one is neutrally ranked, and the other two are expected to underperform the market in the year ahead.

We caution investors that these stocks may not be as safe as they have been in the past. That's because the larger utilities have seen their stocks rise to near all-time highs. For example, the current yield on this group's stocks is only about equal to the *Value Line* median. Also, though inflation remains tame, the Federal Reserve has indicated that there will probably be several more interest rate hikes next year. This could make bonds more attractive to income-oriented investors. In any case, subscribers should be aware that these stocks may carry more risk than their Beta co-efficients and Safety ranks indicate.

James A. Flood

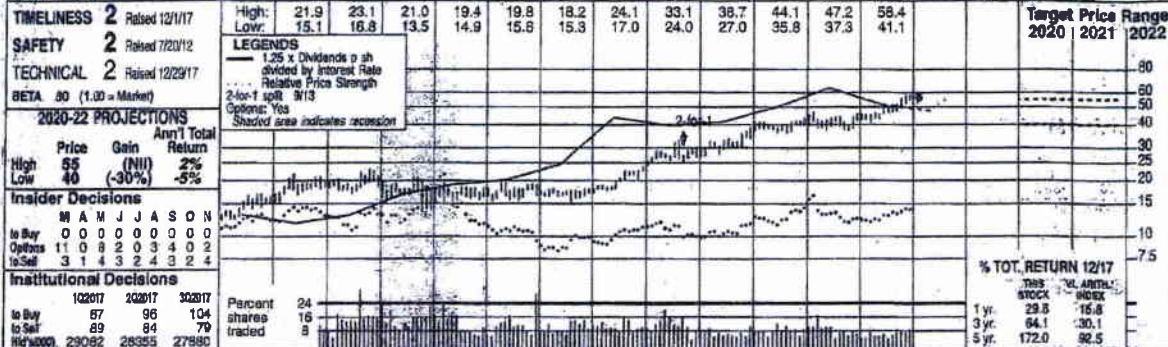


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AMER. STATES WATER NYSE-AWR

RECENT PRICE **56.40** P/E RATIO **32.0** (Trailing: 30.8 Median: 20.0) RELATIVE P/E RATIO **1.56** DIV'D YLD **1.9%** VALUE LINE **1784**



TIMELINESS 2 Raised 12/1/17
SAFETY 2 Raised 7/23/12
TECHNICAL 2 Raised 12/29/17
BETA 80 (1.00 = Market)

2020-22 PROJECTIONS

High	Low	Price	Gain	Ann'l Total Return
55	40	56.40	(-30%)	-5%

Insider Decisions

M	A	M	J	J	A	S	O	N
0	0	0	0	0	0	0	0	0
11	0	8	2	0	3	4	0	2
3	1	4	3	2	4	3	2	4

Institutional Decisions

10/2017	10/2017	10/2017	Percent shares traded
87	96	104	24
89	84	79	8
23082	28355	27980	

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.58	11.92	12.40	12.65	12.85	13.05	13.25	13.45
1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.89	1.70	2.11	2.13	2.48	2.65	2.57	2.81	2.70	2.85	3.05	3.05	3.05	3.05	3.05
.67	.87	.39	.53	.66	.67	.81	.78	.91	1.11	1.12	1.41	1.61	1.57	1.80	1.62	1.85	1.85	1.85	1.85	1.85	1.85
.43	.44	.44	.44	.45	.45	.46	.48	.51	.52	.55	.54	.78	.83	.87	.91	.99	1.06	1.06	1.06	1.06	1.06
1.59	1.34	1.88	2.51	2.12	1.95	1.46	2.23	2.09	2.12	2.13	1.77	2.52	1.99	2.39	3.55	3.15	3.15	3.15	3.15	3.15	3.15
6.81	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.20	14.85	14.85	14.85	14.85	14.85
30.24	30.38	30.42	33.50	35.50	34.40	34.46	34.40	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	36.70	36.90	36.90	36.90	36.90	36.90
16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.5	21.2	15.7	15.4	14.3	17.2	20.1	24.8	25.8	28.7	28.7	28.7	28.7	28.7	28.7
.86	1.00	1.82	1.23	1.17	1.50	1.27	1.38	1.41	1.00	.97	.91	.97	1.08	1.24	1.35	1.27	1.27	1.27	1.27	1.27	1.27
3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$367.3 mil. Due in 5 Yrs \$41.7 mil.
 LT Debt \$321.0 mil. LT Interest \$21.3 mil. (98% of CapT)

Leases, Uncapitalized: Annual rentals \$2.5 mil.
 Pension Assets-12/16 \$150.9 mil. Oblig. \$180.4 mil.

Pfd Stock None.

Common Stock 36,673,175 shs. as of 10/1/17

MARKET CAP: \$2.1 billion (Mkt Cap)

CURRENT POSITION	2015	2016	9/30/17
Cash Assets	4.4	4	6.7
Accs Receivable	18.9	20.0	29.4
Other	109.4	146.5	110.8
Current Assets	132.7	166.9	146.7
Accs Payable	50.6	43.7	53.8
Debt Due	28.3	90.3	46.3
Other	44.6	43.9	51.8
Current Liab.	123.5	177.9	151.9

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to 281,062 customers in 75 cities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,940 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 736 employees. BlackRock, Inc. owns 11.7% of out. shares; Vanguard, 9.5%; off. & dr. 1.5%. (4/17 Proxy). Chairman: Lloyd Ross. President & Chief Executive Officer: Robert J. Sprows, Inc. CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel: 909-394-3800. Internet: www.aswater.com.

American States Water has solid earnings prospects. We estimate that the water utility earned \$1.85 per share in 2017, thanks, in part, to an unusual gain resulting from the sale of certain assets. Even without this windfall, however, the company would still have likely recorded a 6% increase in its share net. The positive momentum from its core water operations should enable the company's share net to reach \$1.85 once again in 2018. Our earnings forecasts are based upon constructive regulatory treatment. As is the protocol in California, a utility petitions state authorities for rate relief every three years. The company's Golden Gate Water subsidiary filed a general case in July of last year. The application is for the years 2019, 2020, and 2021. A final decision is expected by the end of 2018. The California Public Utility Commission has been reasonable in the past, as it has worked with utilities that have had to spend heavily to upgrade antiquated pipeline systems as well as successfully get customers to reduce consumption because of droughts. **The nonregulated business provides**

opportunity for growth. No matter how efficiently a utility is run, its profitability is limited to what state regulators allow. Through its ASUS business, which represents about 20% of net income, the company has been involved in taking over the management of water systems of major U.S. military installation. ASUS has already signed several 50-year contracts, and we expect to see more agreements reached in the coming years as privatization in this sector increases. **Timely shares of American States have been doing well, of late.** Since our last report three months ago, AWR has increased over 10%. By comparison, the S&P 500 has risen only about 6%. Typically, water stocks have been defensive investments for those seeking income. This pattern has changed, possibly due to the limited amount of shares available in the large-cap sector of the water industry. Indeed, AWR is now trading above our projected 2020-2022 Target Price Range. Also, potential interest rates hikes by the Federal Reserve may now make this group less suitable for conservative accounts. **James A. Flood January 12, 2018**

Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	75
Earnings Predictability	85

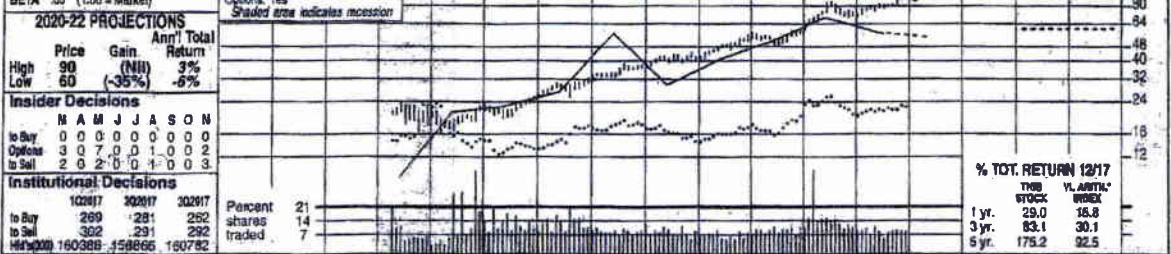
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AMERICAN WATER NYSE-AWK

RECENT PRICE **89.08** P/E RATIO **28.1** (Trailing: 30.2 Median: NMF) RELATIVE P/E RATIO **1.37** DIV'D YLD **2.0%** VALUE LINE **1785**

High: 23.7 23.0 25.8 32.8 39.4 45.1 56.2 61.2 85.2 92.4
 Low: 16.5 16.2 19.4 25.2 31.3 37.0 41.1 48.4 58.9 70.0

Target Price Range 2020 2021 2022
 128
 96
 80
 64
 48
 32
 16
 12



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	18.95	20.10	20.10	20.10	20.10
85	4.47	2.87	2.89	3.58	3.73	4.27	4.36	4.75	5.13	5.26	5.80	6.20	6.20	6.20	6.20
4.97	62.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	3.00	3.30	3.30	3.30	3.30
4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	7.20	7.25	7.25	7.25	7.25
23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.90	32.40	32.40	32.40	32.40
160.00	160.00	160.00	174.63	175.00	175.56	179.99	178.25	179.46	178.28	178.10	178.50	179.00	179.00	179.00	179.00
18.9	15.6	14.6	16.8	16.7	19.3	20.0	20.5	27.7	26.8	27.7	26.8	26.8	26.8	26.8	26.8
1.14	1.04	93	1.05	1.06	1.07	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
1.9%	4.2%	3.6%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

CAPITAL STRUCTURE as of 9/30/17

Total Debt \$7482.0 mil. Due in 5 Yrs \$1896.0 mil.
 LT Debt \$6972.0 mil. LT Interest \$349.0 mil. (5% of Cap)

Leases, Uncapitalized: Annual rentals \$14.0 mil.
 Pension Assets 12/16 \$1443.0 mil.
 Pfd Stock \$9.0 mil. Pfd Div'd \$5.5 mil.

Common Stock 178,375,400 shs. as of 10/26/17

MARKET CAP: \$15.3 billion (Large Cap)

2015	2016	9/30/17
2214.2	2336.9	2440.7
2042.3	187.2	209.9
37.4%	37.9%	40.4%
50.9%	53.1%	56.9%
49.1%	46.9%	43.1%
9246.7	8750.2	9289.0
9318.0	9891.8	10524
NMF	3.7%	3.8%
NMF	4.8%	5.2%
NMF	4.6%	5.2%
NMF	3.0%	1.8%

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 15 million people in over 47 states and Canada. (Regulated presence in 16 states.) Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86.5% of 2016 revenues.

New Jersey is its largest market accounting for 25.4% of regulated revenues. Has 6,600 employees. The Vanguard Group, owns 8.6% of outstanding shares; BlackRock, Inc., 8.2%; officers & directors, less than 1.0%. (3/17 Proxy). President & CEO: Susan N. Story. Chair: George MacKenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel.: 856-346-8200. Internet: www.amwater.com.

ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22

Revenues	3.0%	3.5%	4.5%
"Cash Flow"	23.0%	8.5%	6.5%
Earnings	11.0%	8.5%	8.5%
Dividends	8.0%	10.0%	10.0%
Book Value	1.5%	4.0%	5.5%

QUARTERLY REVENUES (\$ mil.)

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	679.0	754.8	846.1	731.4	3011.3
2015	699.0	782.0	896.0	783.0	3159.0
2016	743.0	827.0	930.0	802.0	3302.0
2017	756.0	844.0	936.0	844	3380
2018	770	895	1040	895	3600

EARNINGS PER SHARE

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.39	.62	.56	.52	2.09
2015	.44	.68	.86	.56	2.54
2016	.46	.77	.83	.57	2.62
2017	.52	.73	1.13	.62	3.00
2018	.58	.84	1.19	.69	3.30

QUARTERLY DIVIDENDS PAID

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.26	.31	.31	.31	1.21
2015	.31	.34	.34	.34	1.33
2016	.34	.375	.375	.375	1.47
2017	.375	.415	.415	.415	1.62
2018					

American Water Works' prospects are bright. In a December investor presentation, management stated once again that the in-house target for annual growth over the next five-year period for both earnings and dividends is at the high end of the 7% to 10% range. This is well above the projected industry average.

Acquisitions and cost controls will likely remain the twin pillars of the utility's operating strategy. The water industry in the United States is very fragmented and inefficient. As a result, there are many small and midsize water authorities that do not have the funds required to make the necessary upgrades to their aging water facilities. Hence, American Water has a continual pipeline of purchases in the works. The company is able to integrate these new additions into its asset base while achieving substantial cost savings. Moreover, regulators are happy (more below) when utilities can provide better service at a lower price.

Regulators will probably have a major say in the company's future performance. As the utility continues to expand, its relationship with different state water authorities should become even more important as it will have to file more rate cases. On the positive side of the ledger, American Water's internal (non-GAAP) operating expense margin continues to decline. Indeed, the ratio has decreased from 44% in 2010 to about 34% this year. The goal is 32.5% by 2020-2022. In any case, being able to quantify savings keeps a utility in the good graces of those ruling on rate filings.

The capital budget has been raised substantially. Even though the company is already in the midst of a major construction program, management just increased the estimated outlays by about \$1 billion to bring the new expected five-year total to somewhere between \$8.0 billion and \$9.6 billion. American Water's finances are average, and probably will remain so for the next several years.

These timely shares will most likely not interest long-term investors. AWK has outperformed the broader market averages, of late. Indeed, the stock recently traded above our projected 2020-2022 Target Price Range.

James A. Flood
 January 12, 2018

(A) Diluted earnings. Excludes nonrecurring losses: '08, \$4.82; '09, \$2.63; '11, \$0.07. Discontinued operations: '06, (\$0.04); '11, \$0.03; '12, (\$0.10); '13, (\$0.01). GAAP used as of 2014. Next earnings report due mid-February. Quarterly earnings do not sum in '16 due to rounding. (B) Dividends paid in March, June, September, and December. = Div. reinvest-ment available. (C) In millions. (D) Includes intangibles. On 9/30/17: \$1.373 billion, \$7.70/shares. (E) Pro forma numbers for '06 & '07.

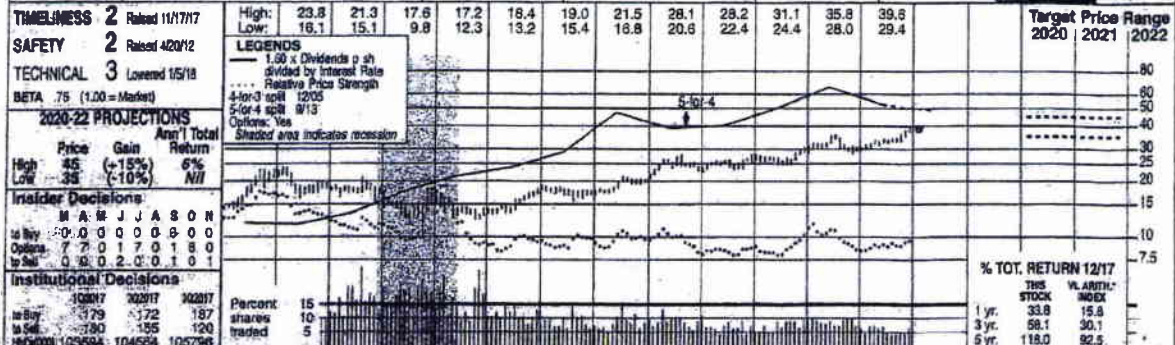
Company's Financial Strength B+
 Stock's Price Stability 100
 Price Growth Persistence 85
 Earnings Predictability 80

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AQUA AMERICA NYSE-WTR

RECENT PRICE **38.65** P/E RATIO **27.4** (Trailing: 29.1 Median: 22.0) RELATIVE P/E RATIO **1.34** DIVD YLD **2.2%** VALUE LINE **1786**



Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues per sh	4.61	4.82	4.50	4.70	4.70	4.65	4.65	4.65	4.65
"Cash Flow" per sh	1.87	2.07	2.15	2.25	2.25	2.25	2.25	2.25	2.25
Earnings per sh	1.16	1.32	1.39	1.45	1.45	1.45	1.45	1.45	1.45
Div'd Decl'd per sh	.63	.74	.79	.85	.85	.85	.85	.85	.85
Cap'l Spending per sh	1.20	1.14	1.32	1.39	1.39	1.39	1.39	1.39	1.39
Book Value per sh	14.83	14.83	14.83	14.83	14.83	14.83	14.83	14.83	14.83

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Debt \$2058.2 mil	602.5	627.0	670.5	726.1	712.0	757.8	768.6	779.9	814.2
LT Debt \$1952.5 mil	95.0	97.9	104.4	124.0	144.8	153.1	205.0	213.9	201.8
LT Interest \$80.0 mil	38.9%	38.7%	38.4%	39.2%	32.9%	39.0%	10.0%	10.5%	6.9%
Capex % of Cap'l	1.1%	2.4%	3.1%	3.8%	3.5%	3.0%	3.0%	3.0%	3.0%

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Return on Total Cap'l	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Return on Shr. Equity	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Return on Com. Equity	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Retained to Com Eq	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
All Div'ds to Net Prof	82%	82%	82%	82%	82%	82%	82%	82%	82%

Business: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Has 1,551 employees. Acquired AquaSource, 7/13; North Maine Utilities, 7/15; and others. Water supply revenues: 2016: residential, 58%; commercial, 18%; industrial, wastewater & other, 25%. Off. & dir. own less than 1% of the common stock; Vanguard Group, 8.9%; Blackrock, Inc. 8.1%; State Street Capital, 6.0% (3/17 Proxy). President & Chief Executive Officer: Christopher Franklin, Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Tel: 610-625-1400. Internet: www.aquaamerica.com.

Our earnings estimates for Aqua America remain unchanged. But we have lowered our revenue forecast for both last year's fourth quarter and 2018 as water sales have been declining. On the positive side, the water utility's operating expenses have been decreasing at a higher rate thanks to lower power and chemical costs. Indeed, we think Aqua's 2017 share net came in at \$1.36, versus 2016's tough \$1.32 comparison. Rate relief granted by several states over the past 12 months will be in effect all of this year. This, plus expected new hikes in Virginia and Indiana, should enable Aqua's share earning to climb a healthy 7% to \$1.45.

Acquisitions are being made at a modest pace. Due to the fragmentation in the market (there are over 100,000 separate water districts in the U.S.), large-cap water utilities such as Aqua are continuously buying small water entities. Also, most of these authorities do not have the funds required to replace and upgrade their aging network of pipes and waste systems. Not only do the bigger water entities have the funds available for the needed capital outlays, they are also able to realize significant cost saving because the industry is rife with redundancies. The company's acquisitions made through September of last year combined with organic growth, led to only a 0.8% increase in the customer base. Management has targeted annual growth to be approximately 1.5%-2.0%, so we expect the pace to possible accelerate here.

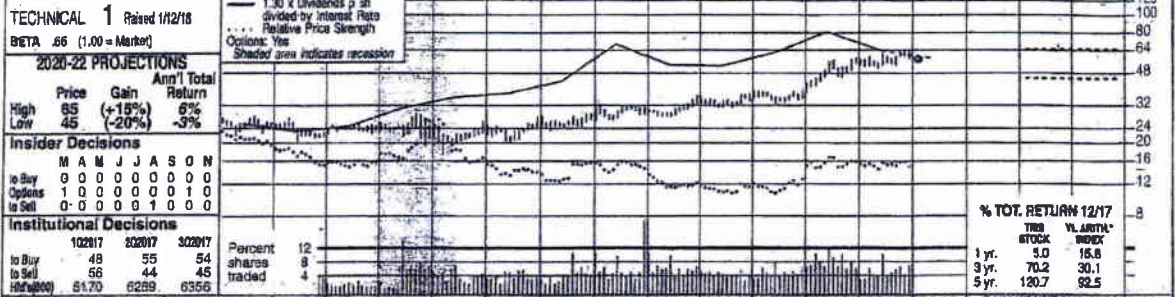
Aqua has a healthy balance sheet. Of the nine members in this group, only two merit an "A" Financial Strength rating. This leaves the company with the capacity to borrow to buy more water assets. In addition, Aqua's policy of hardly issuing any new equity is a real positive. With the stock near its all-time high, a new equity offering would probably be well received, as institutional demand for large-cap water utilities stock remains strong. These shares are timely. Also, even though WTR's long-term total return potential isn't great, it is more attractive than most other mid- and large-cap stocks in this group. So, investors that must own a water utility equity may find WTR of interest.

James A. Flood January 12, 2018

(A) Diluted eps. Excl. nonrec. gains: '01, 26; '02, 46; '03, 36; '12, 18a. Excl. gain from disc. operations: '12, 7a; '13, 9c; '14, 11a. May not sum due to rounding. Next earnings report due mid-February. (B) Dividends historically paid in early March, June, Sept. & Dec. = Divd. reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits. Company's Financial Strength: A; Stock's Price Stability: 95; Price Growth Persistence: 85; Earnings Predictability: 90. To subscribe call 1-800-VALUELINE.

CONNECTICUT WATER NDQ-CTWS

RECENT PRICE **57.13** P/E RATIO **25.1** (Trailing: 27.7, Median: 29.0) RELATIVE P/E RATIO **1.22** DIVD YLD **2.1%** VALUE LINE **1788**



Year	Price	Gain	Ann'l Total Return
High	85	+15%	6%
Low	45	-20%	-3%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
Revenues per sh	5.93	5.77	5.91	6.04	5.81	5.88	7.05	7.24	6.93	7.65	7.93	9.47	8.29	8.45	8.58	8.77	8.75	8.55	8.55	8.55	8.55	8.55	8.55		
"Cash Flow" per sh	1.78	1.78	1.89	1.91	1.82	1.52	1.90	1.95	1.98	2.04	2.11	2.64	2.63	2.97	3.18	3.31	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	
Earnings per sh ^A	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.66	1.92	2.04	2.08	2.20	2.40	2.40	2.40	2.40	2.40	2.40	2.40	
Div'd Decl'd per sh ^B	.90	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	.98	1.01	1.05	1.12	1.18	1.24	1.24	1.24	1.24	1.24	1.24	1.24	
Cap'l Spending per sh	1.96	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.11	4.29	5.93	4.90	4.35	4.35	4.35	4.35	4.35	4.35	4.35	
Book Value per sh ^D	9.25	10.08	10.46	10.94	11.52	11.80	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.83	20.01	20.98	24.40	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
Common Shs Outst ^C	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.12	11.19	11.25	12.10	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25
Avg Ann'l P/E Ratio	21.5	24.3	23.5	22.9	28.6	28.0	23.0	22.2	18.4	20.7	23.0	19.4	18.4	17.5	17.8	23.3	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
Relative P/E Ratio	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.89	1.22	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Avg Ann'l Div'd Yield	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	2.9%	2.3%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$263.2 mil. Due in 5 Yrs \$19.8 mil.
 LT Debt \$255.2 mil. LT Interest \$8.8 mil. (47% of Cap'l)
 Leases, Uncapitalized: Annual rentals \$3 mil.
 Pension Assets-12/16 \$62.7 mil. Oblig. \$79.3 mil.
 Pfd Stock \$0.8 mil. Pfd Divd NMF
 Common Stock 12,068,299 shs.
 MARKET CAP: \$700 million (Small Cap)

Year	2015	2016	9/30/17
Cash Assets	.7	1.6	8.3
Accounts Receivable	11.0	13.0	15.6
Other	15.3	14.8	23.2
Current Assets	27.0	29.4	47.1
Accts Payable	11.9	13.1	8.6
Debt Due	2.8	4.9	8.0
Other	22.2	37.1	23.2
Current Liab.	36.9	55.1	39.8

ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22
 Revenues 4.0% 3.0% 7.0%
 "Cash Flow" 6.5% 9.5% 4.5%
 Earnings 8.0% 12.0% 8.5%
 Dividends 2.5% 3.0% 5.6%
 Book Value 8.0% 9.0% 5.0%

Cal-ender	QUARTERLY REVENUES (\$ mil.)	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	20.3 25.4 27.5 20.7	94.0
2015	20.0 23.5 28.4 21.0	98.0
2016	21.6 28.1 28.5 21.5	98.7
2017	22.5 27.9 31.8 23.8	109
2018	25.5 30.5 35.0 28.0	117

Cal-ender	EARNINGS PER SHARE ^A	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	.27 .57 .76 .22	1.92
2015	.28 .77 .79 .20	2.04
2016	.28 .89 .84 .07	2.08
2017	.36 .73 .80 .21	2.20
2018	.37 .80 .93 .30	2.40

Cal-ender	QUARTERLY DIVIDENDS PAID ^B	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	2475 2475 2575 2575	1.01
2015	2575 2575 2675 2675	1.05
2016	2675 2825 2825 2825	1.12
2017	2825 2975 2975 2975	1.18

Connecticut Water Service reported third-quarter financial results in line with our expectations. Revenues of \$31.8 million rose 8%, year over year, while earnings of \$0.90 per share logged a similar advance. There were several noteworthy highlights during the September period. These consist of the completion and inclusion of the Heritage Village Water and Avon Water acquisitions, which added about 9,500 customers and \$2.4 million to the top line. Moreover, Connecticut finalized a \$90 million water treatment facility upgrade.

The company has received approval to raise its rates. As noted in our previous review, Connecticut Water's subsidiary, The Mains Water Company, filed for a rate hike to recoup about \$5 million in past water system upgrades and associated operating costs. The rate increase (effective as of December 1st) will impact roughly 16,500 customers and lift its annual revenue haul by more than \$1.5 million.

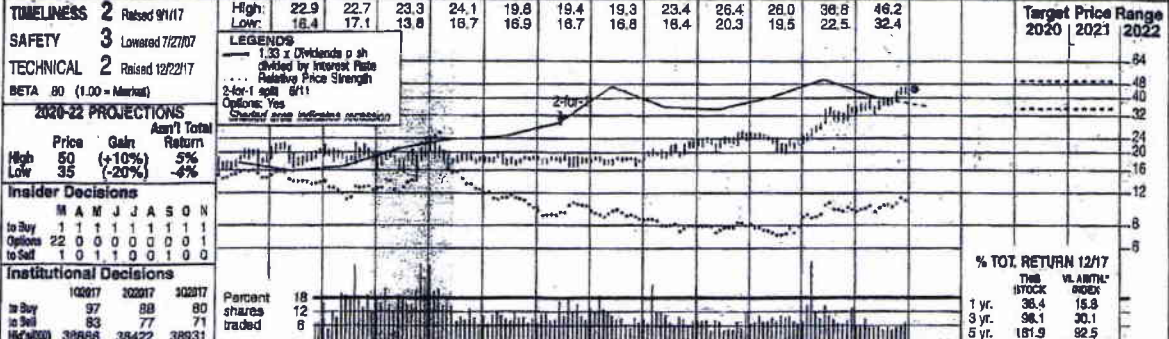
Additional hikes are expected down the road. No doubt, infrastructure upgrades are apt to persist over the pull to next decade, as the push to revamp outdated water pipes and mains continues to be the primary focus for most water utilities. Improvements in water treatment plants are also in the cards. Over the course of this year, we believe CTWS will match its 2017 spending budget, at around \$66 million. As always, to help fund (or recoup) these investments, we expect periodic rate filings to come across the public utilities commission's desk.

We have modestly raised our 2018 top- and bottom-line estimates. Due to the above-mentioned rate approval and wider customer base, we are adding \$2 million and \$0.05 to this year's revenue and earnings forecasts, to \$117 million and \$2.40 a share, respectively. Meanwhile, our financial projections for 2017 are unchanged.

This issue ought to appeal primarily to those with a short-term strategy (Timeliness: 2). On the other hand, shares of CTWS are already trading well within our 3- to 5-year Target Price Range. Therefore, we recommend longer-term accounts wait on the sidelines for a more attractive entry point.

Nicholas P. Patrikis January 12, 2018

CALIFORNIA WATER NYSE-CWT



Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Price	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.70	13.70	14.10	14.70	15.80	16.80	17.87
Gain (+10%)	1.10	1.32	1.28	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	2.70	2.90	2.90	3.25	3.55	3.85
Loss (-20%)	.47	.63	.61	.73	.74	.67	.75	.96	.98	.91	.88	1.02	1.02	1.19	.94	1.01	1.40	1.55	1.55	1.85	2.15	2.45

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues per sh	1.10	1.32	1.28	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	2.70	2.90	2.90	3.25	3.55	3.85
Cash Flow per sh	.47	.63	.61	.73	.74	.67	.75	.96	.98	.91	.88	1.02	1.02	1.19	.94	1.01	1.40	1.55	1.55	1.85	2.15	2.45
Earnings per sh	.56	.56	.56	.57	.57	.58	.58	.59	.59	.90	.82	.63	.64	.65	.67	.69	.72	.75	.75	.85	.95	1.05

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues (\$mil)	367.1	410.3	449.4	460.4	501.8	560.0	584.1	597.5	588.3	609.4	660	685	750	780	800	860	900	950	1000	1050	1100	1150
Income Tax Rate	39.9%	37.7%	46.3%	39.5%	40.5%	37.5%	36.3%	33.0%	36.0%	35.5%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Return on Total Cap	5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	6.0%	6.3%	6.2%	6.0%	6.3%	6.0%	6.3%	6.2%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Return on Sbr. Equity	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.4%	10.6%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Return on Com. Eq	1.5%	3.6%	3.6%	3.0%	2.3%	3.4%	3.4%	4.1%	2.0%	2.4%	4.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Div Payout %	77%	61%	60%	66%	71%	62%	56%	55%	71%	68%	61%	69%	61%	69%	61%	69%	61%	69%	61%	69%	61%	69%

BUSINESS: California Water Service Group provides regulated and nonregulated water service to 482,400 customers in 100 communities in the state of California. Accounts for over 94% of total customers. Also operates in Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquisitions are still on the rise, despite some progress in the second quarter. Water costs (only investment upgrades can be recouped) from greater customer usage, as well as periodic increases in wholesale supplier rates, are pushing expenses higher. Overall, we are adding \$10 million and earnings estimates, to \$685 million and \$155 a share, respectively.

Aggressive infrastructure spending remains on tap through next decade. As previously noted, California has close to \$500 million left on its investment budget, and has earmarked the funds for upgrades to its aging infrastructure and water systems. On top of that, these improvements are likely to be accompanied by bolt-on acquisitions.

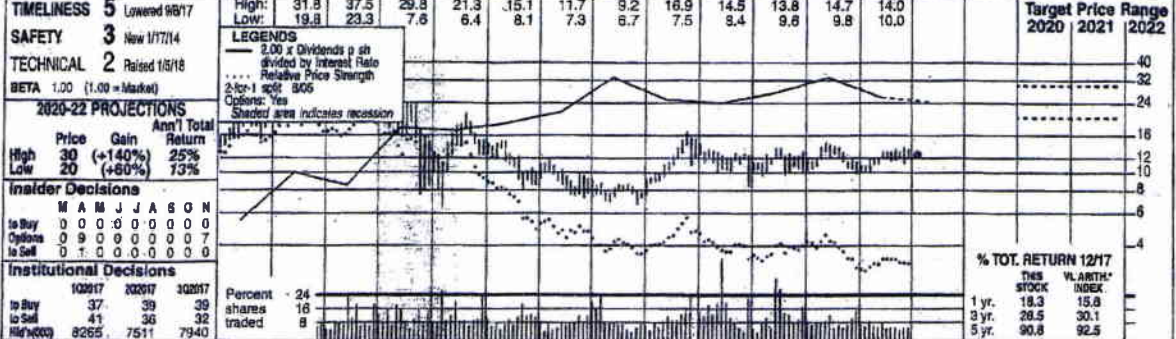
This issue is best suited for short-term accounts. On the other hand, CWT shares have been on a multiyear price ascent and, as a result, total return potential 3 to 5 years out is unappealing. Thus, we think investors with a longer-term holding period can find more-attractive options elsewhere, at this time.

Nicholas P. Patrikis January 12, 2018

Year	2014	2015	2016	2017	2018
Basic EPS	1.10	1.32	1.28	1.42	1.52
Cash Flow	0.47	0.63	0.61	0.73	0.74
Earnings	0.56	0.56	0.56	0.57	0.57
Dividends	0.42	0.42	0.42	0.42	0.42
Book Value	1.10	1.32	1.28	1.42	1.52

CONSOL. WATER CO. NDCQ-CWCO

RECENT PRICE **12.60** P/E RATIO **20.0** (Trailing: 28.3 Median: 25.0) RELATIVE P/E RATIO **0.98** DIV YLD **2.7%** VALUE LINE **1789**



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC 20-22	
1.41	1.52	1.88	2.02	1.12	2.71	3.41	4.52	3.39	3.49	3.79	4.49	4.35	4.46	3.86	3.89	4.25	4.40	Revenues per sh	8.70
.52	.50	.63	.77	.37	.87	1.20	.95	1.18	.88	.83	1.17	.96	.80	.89	.95	.75	.95	"Cash Flow" per sh	1.85
.35	.32	.42	.49	.23	.59	.79	.50	.74	.43	.42	.64	.58	.42	.51	.27	.55	.70	Earnings per sh ^A	1.25
.20	.21	.21	.23	.12	.24	.30	.33	.28	.30	.30	.30	.30	.30	.30	.30	.31	.34	Div'd Decl'd per sh ^B	.40
.24	.39	.19	.24	.77	1.83	.54	.46	.18	.09	.96	.31	.29	.32	.21	.23	.10	.28	Cap'l Spending per sh	.40
2.45	2.64	3.89	4.20	2.54	-7.49	8.21	8.36	8.53	8.69	8.83	9.20	9.44	9.58	9.31	9.79	10.00	10.35	Book Value per sh ^D	11.90
7.84	7.39	11.37	11.51	23.46	14.13	14.40	14.53	14.54	14.55	14.57	14.58	14.89	14.72	14.78	14.87	15.00	15.00	Common Shs Outst ^C	16.00
13.9	21.6	19.3	23.1	NMF	43.0	35.4	37.8	19.0	28.9	22.4	12.4	20.0	28.3	22.7	44.8	21.6	21.6	Avg Ann'l P/E Ratio	21.0
71	1.18	1.10	1.22	NMF	2.32	1.88	2.27	1.27	1.71	1.41	.79	1.12	1.48	1.14	2.36	1.05	1.05	Relative P/E Ratio	1.30
4.2%	3.1%	2.6%	2.0%	7%	9%	7%	1.7%	2.0%	2.6%	3.2%	3.8%	2.6%	2.5%	2.6%	2.5%	2.6%	2.6%	Avg Ann'l Div'd Yield	1.6%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$0.4 mill. Due in 5 Yrs \$0.4 mill.
 LT Debt None LT interest None

Leases, Uncapitalized: Annual rentals \$.8 mill.

2015	2016	9/30/17
50.4	39.3	47.0
9.5	16.5	13.0
6.5	5.1	7.8
65.4	60.9	67.8
4.8	4.9	5.3
7.0	5	4
1.4	1.3	1.5
13.2	6.7	7.2

MARKET CAP: \$206 million (Small Cap)

BUSINESS: Consolidated Water Co. Ltd. develops and operates seawater desalination plants and water distribution systems in areas where naturally occurring supplies of potable water are scarce or nonexistent. Its desalination process involves reverse osmosis tech. It provides water in the Cayman Islands, Belize, the Bahamas, the British Virgin Islands, and Bonaire. At 12/31/16, it operated 13 plants with a capacity of 28.3 million gallons per day. Inc. Cayman Islands. Has 117 employees. President & Chief Executive Officer: Frederick McTaggart. CH/Dir. own 2.9% of stock; (4/17 proxy). Address: Regatta Office Park Windward Three, 4th Floor, West Bay Road P.O. Box 1114 Grand Cayman, KY-1102, Cayman Islands. Tel: (345) 946-4277. Intranet: www.cwco.com.

Consolidated Water is trying to divest its troubled Bali project. The desalination facility, which was completed several years ago, has been a major drag on the company's bottom line. Based on the scarcity of potable water on the island, combined with a growing population, the Nusa Dua plant had promising prospects. Losses generated by the project increased from under \$1 million in 2015, however, to \$2.5 million in 2016. In 2017, another \$1.6 million in charges were incurred. Moreover, no local strategic partnership has been made, and Consolidated is being sued by its largest customer. The company wants to cease operations at Nusa Dua by the end of the first quarter, but that probably will be held up by the pending lawsuit. **A yet-to-be-constructed plant in Mexico will play a major role in Consolidated's future.** For many years, the water company has been involved in the planning stages of building the Rosarito desalination plant in Baja, Mexico. Just about all of the required approvals have been granted, and construction is expected to commence in 2018. An equity partner is still needed. The plant would come on line in stages and supply water to both the Tijuana and San Diego areas. **The outlook for the rest of the company's operations remains stable to mixed.** The majority of Consolidated's revenues comes from the ownership of desalination facilities in various countries in the Caribbean. Results here have been steady, but negotiations regarding the extension of the company's exclusive right to provide water in the Cayman Islands expired in 2010, and temporary extensions continue to made. In any case, despite the regulatory travails, this should remain the company's core business. Operations in Belize, the Bahamas, and the British Virgin Islands are also doing all right, despite unresolved issues with regulators. **These shares are untimely.** Uncertainty with the Nusa Dua plant, as well as regulatory risk in the Caribbean, leaves the company with a somewhat ill-defined future. On the positive side, the dividend was just hiked 13%, the balance sheet has almost no debt, the manufacturing sector is doing well, and the Rosarito project could lead to a nice payoff down the road.

James A. Flood January 12, 2018

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	18.3	16.9	17.0	15.4	65.6
2015	14.7	14.4	14.6	13.4	57.1
2016	14.0	15.4	14.4	14.1	57.9
2017	15.6	15.3	16.6	16.5	64.0
2018	16.0	16.0	17.5	16.5	66.0

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.04	.19	.13	.06	.42
2015	.13	.15	.12	.11	.51
2016	.15	.16	.13	.10	.54
2017	.18	.11	.08	.18	.55
2018	.19	.18	.15	.18	.70

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.075	.075	.075	.075	.30
2015	.075	.075	.075	.075	.30
2016	.075	.075	.075	.075	.30
2017	.075	.075	.075	.075	.30
2018	.085				

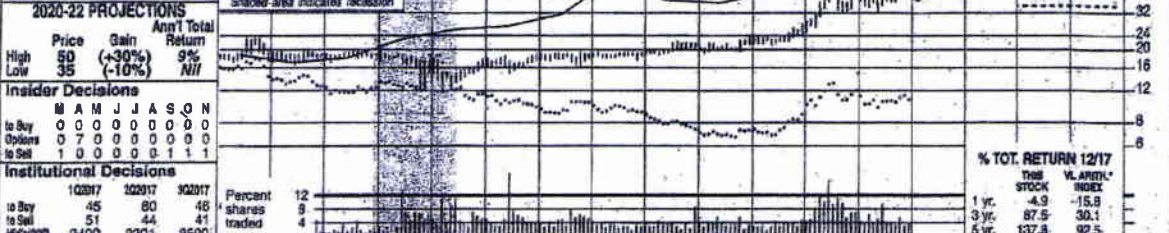
(A) Fully diluted earnings. Excludes losses from discontinued operations: '17, \$0.08 a share. Next earnings report due early February. (B) Dividends historically paid in late January. (C) In millions adjusted for stock split. (D) Includes intangibles. As of 9/30/17, \$13.9 million/\$0.93 a share.

Company's Financial Strength **B+**
 Stock's Price Stability **30**
 Price Growth Persistence **20**
 Earnings Predictability **45**

To subscribe call 1-800-VALUELINE

MIDDLESEX WATER NDQ-MSEX

RECENT PRICE **39.09** P/E RATIO **25.9** (Trailing: 31.3 Median: 20.0) RELATIVE P/E RATIO **1.26** DIV YLD **2.3%** VALUE LINE **1790**



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.10	8.55	8.55	8.55	8.55	8.40
1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.58	1.72	1.84	1.97	2.17	2.25	2.55	2.55	2.55	2.55	3.15
.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	1.38	1.40	1.65	1.65	1.65	1.65	2.10
.82	.83	.85	.88	.87	.88	.89	.70	.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	.91	.91	.91	1.08
1.25	1.59	1.87	2.34	2.18	2.31	1.68	2.12	1.49	1.90	1.50	1.38	1.28	1.40	1.59	2.91	1.80	1.80	1.80	1.80	1.80	2.05
7.11	7.39	7.63	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	13.95	14.65	14.65	14.65	14.65	16.75
10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	16.57	15.70	15.82	15.96	16.12	18.23	16.30	16.30	16.75	16.75	16.75	16.75	17.00
24.8	23.5	30.0	26.4	27.4	22.7	21.8	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.0	28.0	28.0	28.0	28.0	27.8
1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.35	1.37	1.37	1.37	1.37	1.37	1.30
3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.5%

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
86.1	91.0	91.2	102.7	102.1	110.4	114.8	117.1	125.0	132.9	134	143	143	143	143	143	143	143	143	143	143	143
11.8	12.2	10.0	14.3	13.4	14.4	16.6	18.4	20.0	22.7	23.0	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	34.1%	35.0%	34.5%	34.0%	32.0%	31.0%	30.0%	29.0%	28.0%	27.0%	26.0%	25.0%	24.0%	23.0%	22.0%	21.0%
49.0%	45.6%	46.5%	43.1%	42.3%	41.5%	40.4%	39.4%	37.9%	37.5%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
49.6%	51.8%	52.1%	56.8%	56.6%	57.4%	58.7%	58.8%	61.5%	62.0%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%
268.8	259.4	267.9	310.5	312.5	316.5	321.4	335.3	345.4	355.4	370	390	390	390	390	390	390	390	390	390	390	390
333.9	366.3	376.5	405.9	422.2	435.2	448.5	465.4	481.9	517.8	525	535	535	535	535	535	535	535	535	535	535	535
5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	5.3%	6.3%	6.8%	7.1%	7.9%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	8.7%	9.2%	9.8%	10.3%	10.0%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.3%	9.6%	10.3%	10.0%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
1.8%	2.0%	.1%	2.1%	1.0%	1.4%	2.4%	3.1%	3.5%	4.3%	4.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
79%	78%	98%	75%	87%	89%	73%	67%	63%	58%	61%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/16, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add: 1600 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

Middlesex Water Company's battle with mother nature has yet to subside. The story hasn't changed much over the past three months, as weather-related disruptions took a toll on its top line once again. Operating in the Northeast region of the U.S. leaves MSEX vulnerable to extremely volatile weather conditions, which can noticeably impact customer water consumption. Specifically, its Middlesex New Jersey operations saw revenues contract \$1.8 million, year over year, due to softer consumption, while its Delaware utility system was essentially flat, thanks to contributions from added residential customers during the period. Overall, Middlesex generated \$36.2 million in revenues for the September period, \$1.6 million less than last year's haul. This has spurred us to trim \$3.0 million off our 2017 top-line forecast, to \$134 million.

The outlook for profit growth in 2018 is good. Operating margins ought to remain relatively steady, with few changes to the cost structure expected. Meantime, a reduced income tax rate (new tax act and various investment spending deductions) is the main driver behind our improved perspective. All told, we look for earnings to expand 18% this year, to \$1.65 a share (+0.05), on revenues of \$143 million (-\$2.0 million).

Long-term, infrastructure upgrades ought to bear fruit. Approximately \$12 million per year (for the next three years) is earmarked for the replacement of aging water mains, valves, and other infrastructure upgrades.

The company boosted its quarterly dividend payout by about 8%, to \$0.224 per share. Shareholders have enjoyed 45 years of consecutive dividend increases, and we don't think this streak will be broken anytime soon. At present, MSEX shares offer a yield that fractionally outpaces the average of all dividend paying stocks in *The Value Line Investment Survey*.

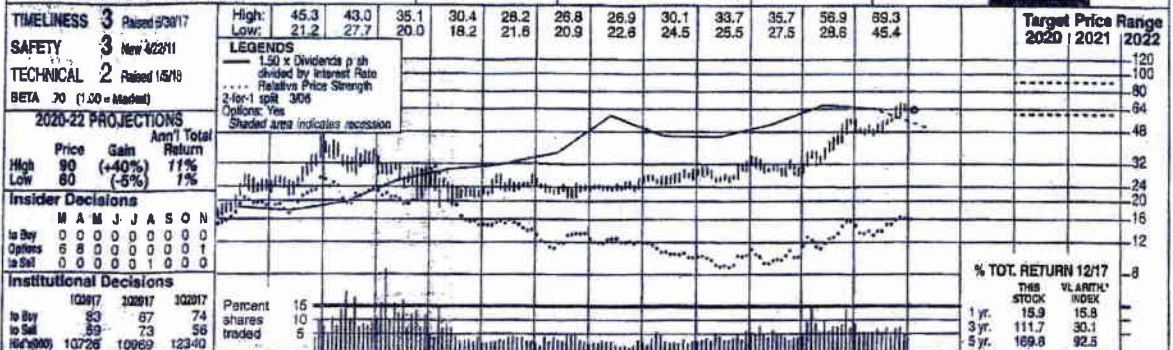
This issue is still a subpar selection for relative year-ahead price performance (Timeliness: 4). What's more, total return potential over the pull to 2020-2022 is nothing to write home about. Thus, we think investors can find better options elsewhere, at this juncture.

Nicholas P. Patrikis January 12, 2018

Cal-ender	QUARTERLY REVENUES (\$mill)	Full Year	Cal-ender	EARNINGS PER SHARE A	Full Year	Cal-ender	QUARTERLY DIVIDENDS PAID B	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31			Mar.31 Jun.30 Sep.30 Dec.31			Mar.31 Jun.30 Sep.30 Dec.31	
2014	27.1 29.2 32.7 28.1	117.1	2014	.20 .29 .42 .22	1.13	2014	.19 .19 .19 .19	.76
2015	28.8 31.7 34.7 30.8	126.0	2015	.22 .31 .41 .28	1.22	2015	.1925 .1925 .1925 .1925	.78
2016	30.8 32.7 37.8 31.8	132.9	2016	.29 .36 .54 .19	1.38	2016	.19875 .19875 .19875 .19875	.81
2017	30.1 33.0 36.2 34.7	134	2017	.27 .33 .46 .34	1.40	2017	.21125 .21125 .21125 .21125	.86
2018	33.0 37.0 38.0 35.0	143	2018	.33 .38 .50 .34	1.65	2018		

(A) Diluted earnings. Next earnings report due early February. (B) Dividends historically paid in mid-Feb., May, Aug., and November. Div'd reinvestment plan available. (C) In millions, adjusted for split.

SJW GROUP NYSE-SJW **RECENT PRICE 63.47** **P/E RATIO 23.6** (Trailing: 23.6 Median: 23.0) **RELATIVE P/E RATIO 1.15** **DIV YLD 1.4%** **VALUE LINE 1791**



Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Price	7.45	7.97	8.20	9.14	9.96	10.36	11.25	12.12	11.88	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.10	17.95	17.95	17.95	17.95	17.95
Gain	1.49	1.55	1.75	1.89	2.21	2.36	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.85	4.76	4.60	4.90	4.90	4.90	4.90	4.90
Return	.77	.79	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.12	2.54	1.85	2.57	2.60	2.85	2.85	2.85	2.85	2.85	2.85
Div'd	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	.83	.83	.83	.83	.83
Cap'l Spending	2.63	2.06	3.41	2.31	2.83	3.87	5.62	3.79	3.17	5.85	3.75	5.67	4.68	5.02	5.24	6.95	6.00	5.50	5.50	5.50	5.50	5.50
Book Value	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.89	13.66	13.75	14.20	14.71	15.92	17.75	18.33	20.61	21.65	22.05	22.05	22.05	22.05	22.05
Common Shs Outst'g	18.27	18.27	18.27	18.27	18.27	18.28	18.38	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.36	20.46	21.00	22.00	22.00	22.00	22.00	22.00
Avg Ann'l P/E Ratio	18.5	17.3	15.4	19.8	19.7	23.5	33.4	28.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	26.7	26.7	26.7	26.7	26.7	26.7
Relative P/E Ratio	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	.83	1.01	1.01	1.01	1.01	1.01	1.01
Avg Ann'l Div'd Yield	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues (\$mil)	206.6	220.3	216.1	215.6	209.0	261.5	239.0	261.5	278.9	319.7	305.1	339.7	380	395	395	395	395	395	395	395	395	395
Net Profit (\$mil)	19.3	20.2	15.2	15.8	20.9	22.3	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Income Tax Rate	39.4%	39.5%	40.4%	38.8%	41.1%	41.1%	36.7%	32.5%	38.1%	38.6%	38.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
AFUDC % to Net Profit	2.7%	2.3%	2.9%	--	--	--	--	2.0%	1.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Long-Term Debt Ratio	47.7%	46.0%	49.4%	53.7%	56.8%	55.0%	51.1%	51.6%	49.8%	50.7%	49.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Common Equity Ratio	52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	48.9%	48.4%	50.2%	49.3%	51.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%
Total Capital (\$mil)	453.2	470.9	499.6	560.7	607.9	610.2	656.2	744.5	764.6	855.0	890	935	935	935	935	935	935	935	935	935	935	935
Net Plant (\$mil)	645.5	684.2	718.5	785.5	758.2	831.6	888.7	963.0	1036.8	1146.4	1200	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Return on Total Cap'l	5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	5.0%	8.3%	6.3%	7.4%	7.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Return on Shr. Equity	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	12.5%	12.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
Return on Com Equity	3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	2.9%	10.2%	5.7%	8.6%	7.0%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Retained to Com Prof	57%	59%	80%	80%	81%	59%	62%	29%	42%	31%	40%	33%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$431.0 mil. Due in 6 Yrs \$14.3 mil.
 LT Debt \$431.0 mil. LT Interest \$20.0 mil. (48% of Cap'l)

Leases, Uncapitalized: Annual rentals \$6.6 mil.

Pension Assets: 12/16 \$113.9 mil.
Oblig.: \$174.1 mil.

Pfd Stock None.

Common Stock: 20,520,858 shs.

MARKET CAP: \$1.3 billion (Mid Cap)

Category	2015	2016	9/30/17
CASH POSITION (\$ MIL)			
Cash Assets	5.2	25.3	7.6
Accts Receivable	16.4	16.4	63.0
Other	51.8	57.9	18.5
Current Assets	73.4	99.6	89.1
Accts Payable	16.2	18.7	30.7
Debt Due	38.1	14.3	--
Other	25.3	30.6	59.7
Current Liab.	79.6	83.6	90.4

Category	2015	2016	9/30/17
ANNUAL RATES OF CHANGE (per sh)			
Revenues	5.0%	5.6%	5.0%
"Cash Flow"	7.0%	12.0%	1.5%
Earnings	8.0%	20.5%	7.0%
Dividends	4.0%	3.0%	7.0%
Book Value	8.5%	8.5%	4.5%

Quarter	2014	2015	2016	2017	2018
QUARTERLY REVENUES (\$ mil.)					
Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	54.3	70.4	126.4	88.3	319.7
2015	62.1	72.4	83.0	87.5	305.1
2016	61.1	88.9	112.3	79.4	339.7
2017	88.0	102.1	124.6	84.3	399.0
2018	78.0	109	128	90.0	395
EARNINGS PER SHARE					
Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.04	.34	1.88	.28	2.54
2015	.23	.38	.46	.80	1.85
2016	.18	.82	.92	.67	2.57
2017	.18	.90	.94	.58	2.60
2018	.27	.90	1.00	.69	2.85
QUARTERLY DIVIDENDS PAID \$					
Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.1875	.1875	.1875	.1875	.75
2015	.1950	.1950	.1950	.1950	.78
2016	.2025	.2025	.2025	.2025	.81
2017	.2175	.2175	.2175	.3675	1.04

Business: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 229,000 connections with a total population of roughly one million people in the San Jose area and 13,000 connections that reaches about 38,000 residents in the region between San Antonio and Austin, Texas. The company also offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 406 employees. Officers and directors (including Nancy O. Mose) own 28.9% of outstanding shares (9/17 proxy). Chairman & CEO: Richard Roth, Inc.: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group has finalized the sale of its wholly-owned subsidiary, Texas Water Alliance Limited. Early last year, SJW entered into an agreement with the Guadalupe-Blanco River Authority for total consideration of \$31 million. SJW netted cash proceeds of \$23.5 million, excluding a \$3 million holdback fee (due 2021). As a result of the completed sale and subsequent proceeds, the board of directors paid a special dividend of \$0.17 a share to stockholders on record as of November 29, 2017. Of note, this is in addition to its regular quarterly distribution.

We are boosting our 2018 financial projections for several reasons. First, revenue growth is in the cards, driven by cumulative rate increases and higher customer water usage. Meantime, operating expenses have yet to abate (marginally higher in the third quarter), but we think production costs can subside somewhat next year, while administrative expenses can be held in check. Lastly, a lower effective tax rate stemming from the recent corporate tax overhaul is the primary factor underpinning our bottom-line ramp.

All told, we now look for revenues of \$395 million (+\$25 million from last report's estimate) and earnings of \$2.85 a share (+\$0.25) this year.

Investment spending is still the main theme rolling into next decade. Its spending budget, with approximately \$250 million to \$300 million in available funds, will be periodically tapped to support various projects, infrastructure upgrades, and general water system investments. Presently, management's focus is on the Montevina Water Treatment Plant project (retrofitting was expected to be completed by the end of 2017).

This neutrally ranked equity has etched another high-water mark. Shares of the California-based utility pushed past \$65 per share for the first time in its history, before settling slightly below that level. Still, the stock logged an advance of about 10% over the past three months. While we are bullish on the company's business prospects over the pull to 2020-2022, SJW's rapid climb in share price gives us pause. In sum, we recommend investors wait for a better entry point before initiating a position here.

Nicholas P. Patrikis January 12, 2018

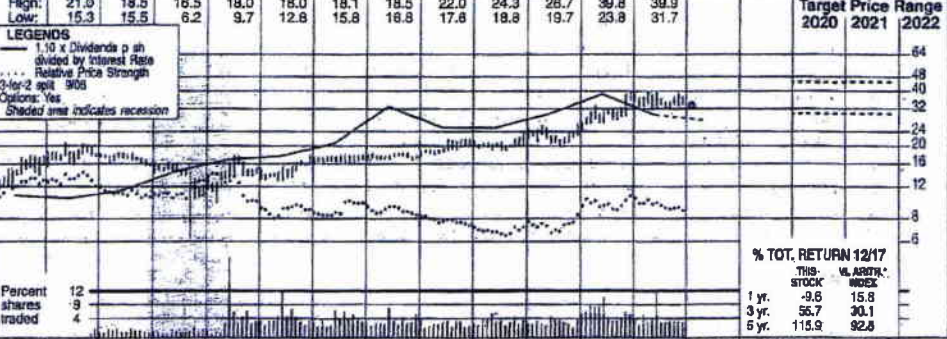
(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.97; '04, \$3.78; '05, \$1.09; '06, \$16.36; '08, \$1.22; '10, \$0.48. GAAP accounting as of 2013. Next earnings report due late February. Quarterly earnings may not add due to rounding.
 (B) Dividends historically paid in early March, June, September, and December. • Div'd reinvestment plan available.
 (C) In millions, adjusted for stock splits.
 (D) Paid special dividend of \$0.17 per share on 11/17.

Company's Financial Strength
 Stock's Price Stability 5+
 Price Growth Persistence 70
 Earnings Predictability 45

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YORK WATER NDQ:YORW

RECENT PRICE 33.35	P/E RATIO 30.0 (Trailing: 34.4 Median: 24.0)	RELATIVE P/E RATIO 1.46	DIVD YLD 2.0%	VALUE LINE 1792
TIMELINESS 3 Raised 11/17/17	SAFETY 3 Lowered 7/17/15	TECHNICAL 2 Raised 1/5/18	BETA .80 (1.00 = Market)	
2020-22 PROJECTIONS High Price 45 (+35%) Low Price 30 (-10%) Ann'l Total Return 10% Nil				
Insider Decisions M A M J J A S O N to Buy 1 1 3 2 2 1 3 2 2 1 3 2 Options 0 0 1 3 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 0 0 0 0 0 0 0 0				
Institutional Decisions 10/2017 2020/17 2020/17 to Buy 39 42 40 to Sell 33 33 30 Net (\$mil) 5127 5205 5125				



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	VALUE LINE PUBL. LLC 20-22
2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	3.70	3.75	3.95	Revenues per sh 5.40
.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.38	1.45	1.42	1.55	1.75	"Cash Flow" per sh 2.25
.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	.92	1.05	1.15	Earnings per sh A 1.60
.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	.63	.65	.70	Div'd Decl'd per sh B .96
.75	.66	1.07	2.50	1.89	1.85	1.89	2.17	1.18	.83	.74	.94	.76	1.10	1.11	1.03	1.96	1.25	Cap'l Spending per sh .95
3.79	3.90	4.06	4.65	4.85	5.34	5.97	6.14	6.32	7.19	7.45	7.73	7.98	8.15	8.51	8.88	9.30	9.55	Book Value per sh 11.20
9.46	9.55	9.93	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.91	12.95	12.90	12.75	Common Shs Outs'g C 12.50
17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.8	21.9	20.7	23.9	24.4	26.3	23.1	23.5	32.9	33.3		Avg Ann'l P/E Ratio 22.5
.91	1.47	1.40	1.35	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.18	1.72	1.62		Relative P/E Ratio 1.40
4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.6%	3.5%	3.6%	3.5%	3.1%	3.1%	2.6%	2.8%	2.6%	2.1%	1.9%		Avg Ann'l Div'd Yield 2.6%
CAPITAL STRUCTURE as of 9/30/17 Total Debt \$86.9 mil. Due in 5 Yrs \$30.5 mil. LT Debt \$86.9 mil. LT Interest \$5.4 mil. (43% of Cap'l)																		
Pension Assets 12/16 \$35.5 mil. Oblig. \$40.8 mil.																		
PK'd Stock None																		
Common Stock 12,859,492 shs.																		
MARKET CAP: \$425 million (Small Cap)																		
CURRENT POSITION 2015 2016 9/30/17																		
Cash Assets 2.9 4.2 -- Accounts Receivable 3.5 4.3 4.4 Inventory (Avg. Cost) .8 .7 .9 Other 4.8 3.4 3.3 Current Assets 11.8 12.6 8.8 Accts Payable 1.8 3.7 4.0 Debt Due -- -- -- Other 4.4 4.5 6.1 Current Liab. 6.2 8.2 10.1																		

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2016, the company's average daily availability was 35.4 million gallons and its service territory had an estimated population of 196,000. Has more than 67,000 customers. Residential customers accounted for 63% of 2016 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 105 full-time employees at 12/31/16. President/CEO: Jeffrey R. Hines. Officers/Directors own 1.1% of the common stock (3/17 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3801. Internet: www.yorkwater.com.

York Water delivered a better-than-expected bottom-line performance in the third quarter. The regulated water utility earned \$0.31 a share for the September period (+15% year over year), besting our \$0.29 call by two cents. The advance can be largely attributed to a lower effective tax rate (asset improvements qualify for deductions), higher surcharges to customers, and an increased allowance for funds used during construction (interest deduction). Meanwhile, operation and maintenance expenses as a percentage of revenues rose 200 basis points, on an annual basis, which makes the share-net showing even more encouraging. On the other hand, revenue growth was essentially nonexistent, dragged down by generally lower consumption.

We are adjusting our 2018 top- and bottom-line estimates. Despite an expanding customer base (acquisition-driven), York's top line is under some pressure. We now look for revenues of \$50.5 million in 2018, down from our prior forecast of \$52.0 million. Conversely, we are adding a dime to our earnings-per-share estimate, to \$1.15.

Capital expenditures ought to remain par for the course going forward. Management estimates it spent approximately \$25 million in 2017 on aging infrastructure, raw water pumping stations, and pipe replacements, more than double the year-earlier total. With plenty of its footprint still needing to be brought up to speed, we anticipate at least several years of aggressive investment spending.

York Water raised its quarterly dividend by 4%, to \$0.17 a share. This marks 21 consecutive years that the company has increased its annual dividend payout. The current yield is fractionally above that of the Value Line median, but should trend higher into next decade thanks to additional dividend hikes.

York Water shares have moved up one notch for Timeliness, to 3, and are now pegged to track the year-ahead broader market averages. Prospects out to the 2020-2022 time frame are bright, though most of the benefits we envision appear to already be baked into the stock price. Capital appreciation potential does not stand out at the recent quotation.

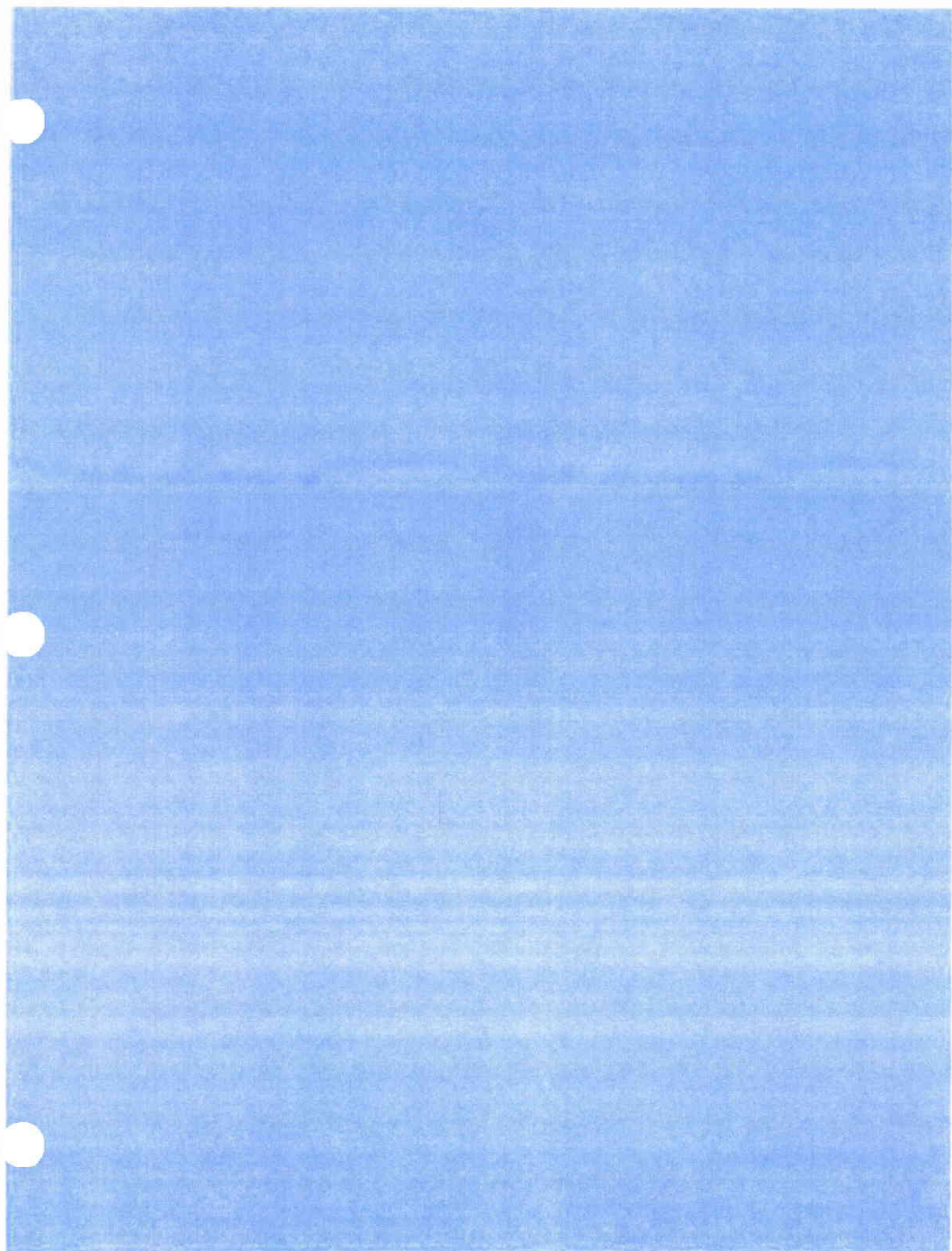
Nicholas P. Patrikis January 12, 2018

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	10.6	11.8	12.0	11.5	45.9
2015	11.2	11.9	12.4	11.6	47.1
2016	11.3	11.8	12.6	11.9	47.6
2017	11.3	12.3	12.7	12.2	48.5
2018	12.0	12.5	13.3	12.7	50.9

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.16	.22	.23	.28	.89
2015	.20	.22	.28	.27	.97
2016	.19	.23	.27	.23	.92
2017	.20	.23	.31	.31	1.05
2018	.24	.25	.34	.32	1.15

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	1.431	1.431	1.431	1.431	5.72
2015	1.495	1.495	1.495	1.555	6.04
2016	1.555	1.555	1.555	1.602	6.27
2017	1.602	1.602	1.602	1.686	6.47
2018					

1) Diluted earnings. Next earnings report due late February. (C) In millions, adjusted for split.
 2) Dividends historically paid in late February, June, September, and December.
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 Company's Financial Strength 8+
 Stock's Price Stability 80
 Price Growth Persistence 55
 Earnings Predictability 90
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Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Market Approach

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**Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018**

Market Approach Summary

	Book Ratios	Purchase Price to Depreciated Original Cost (Book Value)	Indicated Market Value
Comparable Sales			
Depreciated Original Cost (AUS Consultants) OCLD	40,057,633.92	1.5819	63,367,171
Replacement Cost New less Depreciation RCNLD	99,589,818.55	0.9516	94,769,671
Average			79,068,421
 Use (RCNLD)			 94,769,671
 Financial Markets	 Market Value per Share to Book Value per Share		
Market to Book (equity)	2.61		
Market to Book (equity and debt)	1.77		
 Use (equity and debt)	 1.77		
 Market Conclusion	 Investor Purchaser Owned Value to Depreciated Original Cost (Book Value)		
 Exeter Wastewater System	 Exeter Wastewater System		
AUS Depreciated Original Cost	40,057,634	1.77	70,902,012
 Market Value			 Indicated Valus \$s
Minimum			63,367,171
Mean			76,346,285
Median			70,902,012
Maximum			94,769,671
 Use (RCNLD)			 94,769,671

Pennsylvania-American Water Company
Exeter Wastewater System
Wastewater System
Investor-Owned Utility
As of January 1, 2018

Comparable Sales Approach

Market Sales Data

Description	New Garden Wastewater System	McKeesport Wastewater System	Umerick Wastewater System	East Bradford Wastewater Collection System	Simple Average / Standard Deviation	Remove Outliers Simple Average / Standard Deviation	Weighted Average	Remove Outliers Weighted Average / Standard Deviation	Use
System Description									
Type of System	Wastewater Collection & Treatment	Wastewater Collection & Treatment	Wastewater Collection & Treatment	Wastewater Collection Only					
System Attributes									
Purchase Price	29,500,000	159,000,000	75,300,000	5,000,000			768,600,000	367,600,000	
Acquirer	Aqua PA	PA-American	Aqua-PA	Aqua-PA	100%				
Date									
Customers									
Original Cost									
Depreciated Original Cost (AUS Consultants) OCLD	18,567,728	301,915,880	46,151,867	9,383,591			172,070,766	186,836,675	
Purchase Price to OCLD	1.5888	1.5601	1.6272	0.9287	1.4769	1.592	1.5614	1.5819	1.5819
Variance to Simple Mean	0.1626	0.1339	0.201	-0.4875	0.7880	0.0275			
Variance to Weighted Mean	0.0274	-0.0013	0.0658	-0.6327				0.0161	
Replacement Cost New Less Depreciation RCNLD	30,615,410	160,301,491	86,086,756	9,236,581			286,240,238	277,003,657	
Purchase Price to RCNLD	0.9636	0.9919	0.8724	0.5413	0.8423	0.9426	0.9384	0.9516	0.9516
Variance to Simple Mean	0.1213	0.1496	0.0301	-0.301	0.1793				
Variance to Weighted Mean	0.0252	0.0535	-0.066	-0.3971				0.0244	

Pennsylvania-American Water Company
 Eastern Wastewater System
 Wastewater System
 Investor-Owned Utility
 January 1, 2018

Comparable Sales Approach

Financial Data*

	Industry Averages	American & Aqua Averages	American States Water	American Water	Aqua America	California Water	Connecticut Water	Middlesex Water	SW Corp	York
Price per Share			39.23	69.05	31.39	26.59	43.81	31.05	36.41	29.87
Book value per share			12.77	28.25	9.78	13.41	20.02	12.74	18.83	8.52
Market to Book Equity Ratio			3.07	2.44	3.21	1.98	2.19	2.44	1.93	3.51
Minimum	1.93	2.44								
Mean	2.60	1.825		2.44	3.21					
Standard Deviation	0.56	0.385								
Weighted Market to Book Ratio	2.81		5,396.12	46,004.35	23,553.34	3,614.75	2,314.09	1,583.17	2,131.69	1,649.47
Median	2.44	2.825								
Maximum	3.51	3.21								
Debt (Total) \$a millions			325.8	6,544.0	1,795.9	552.5	180.5	144.8	418.9	87.3
Outstanding Shares (millions)			36.50	178.28	176.54	47.84	20.02	16.25	18.83	12.81
Debt per share			8.93	36.71	10.17	11.54	9.02	8.93	22.25	6.81
Equity (Total) \$a millions			1,431.90	12,310.23	5,541.59	1,273.13	877.08	503.94	685.60	582.63
Total Capital (Debt + Equity)			1,757.70	18,854.23	7,337.49	1,825.63	1,057.58	648.84	1,104.50	669.93
			0.05	0.57	0.22	0.06	0.03	0.02	0.03	0.01
Market Value per Share (Equity+Debt)			48.16	105.76	41.56	38.13	52.83	39.98	58.66	36.68
Book Value per Share (Equity+Debt)			21.7	64.96	19.95	24.95	29.04	21.67	41.08	15.33
Market to Book (Total Capital) Ratio			2.22	1.63	2.08	1.53	1.82	1.84	1.43	2.39
Minimum	1.43	1.83								
Mean	1.87	1.855		1.63	2.08					
Standard Deviation	0.32	0.225								
Weighted Market to Book (Debt&Equity) Ratio	1.77		3,902.08	30,792.40	15,261.98	2,795.21	1,924.79	1,193.87	1,579.44	1,123.14
Variance to Weighted Mean	0.0817		0.45	(0.14)	0.31	(0.24)	0.03	0.07	(0.34)	0.62
Median	1.88	1.855								
Maximum	2.39	2.08								

1. Value Line Investment Survey January 12, 2018

Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Market Approach
Value Line Investment Surveys
Water Industry
Market and Financial Ratios
January 2018

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Part 3
Ratings
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ESPECIALLY NOTEWORTHY:

This week, Nutanix, Inc., which offers an enterprise cloud operating system that merges traditional servers, virtualization, storage and networking into one integrated solution, is making its debut in the Value Line Investment Survey on page 1826.

We also are welcoming Interactive Brokers Group, Inc., a holding company, whose primary asset is a 17.1% stake in IBG LLC, which, in turn, owns operating subsidiaries, to the Brokers & Exchanges Industry. Page 1798.

The changes at General Electric continue. To wit, the new CEO, John Flannery, has completed a comprehensive overview of operations, and announced a slew of changes, including a 50% reduction in the quarterly dividend payout. Please turn to page 1753 to learn more.

Cornerstone OnDemand, Inc., recently completed a strategic review process, aided by Goldman Sachs and Centerview Partners. The end result was that Cornerstone accepted an investment of \$300 million from a private-equity firm. You can read more about the deal and the stock's appealing long-term prospects on page 1819.

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- ★ ★ Rank 1 (Highest) for Timeliness.
- ★ Rank 2 (Above Average).

In three parts: Part 1 is the Summary & Index. Part 2 is Selection & Opinion. This is Part 3, Ratings & Reports. Volume LXXIII, No. 22

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Value Line's estimates of sales and earnings growth for individual companies are derived by correlating sales, earnings, and dividends to appropriate components or subcomponents of the Gross Domestic Product, presented below. A more detailed forecast appears periodically in *Selection & Opinion*.

broad-based GDP deflator will advance by 2.0%-2.5% per year, on average. Long-term interest rates on AAA corporate bonds are projected to average just over 5.0% in the years 2020-2022. We expect the Federal Reserve to pursue moderately tighter monetary policies except in years in which the economy is slowing or there is a recession. Based on these assumptions, the Gross Domestic Product will average about \$23,400 billion in the years 2020-2022, a level that is just over 25% above the 2016 total of \$18,625 billion.

HYPOTHESIZED ECONOMIC ENVIRONMENT 3 TO 5 YEARS HENCE

The hypothesized 2020-2022 economic environment into which earnings are forecast is as follows: Unemployment will average 4.0%-4.5% of the national labor force. There will be no major war in progress at that time. Industrial production will be expanding by 2.0%-2.5% per year. Inflation will continue to be modest. Prices as measured by the

Things may turn out differently. But in the absence of knowledge of the future, we use the above assumptions, which appear to be most plausible. Thus we are able to apply a common economic environment to all stocks for the purpose of measuring relative growth potential.

THESE ARE THE NATIONAL INCOME SERIES TO WHICH VALUE LINE SALES, EARNINGS, AND DIVIDEND ESTIMATES ARE CORRELATED.

ANNUAL STATISTICS	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*	2018*	2020-22*
Gross Domestic Product (\$Bil.)	13668	14480	14720	14418	14968	15518	16155	16692	17426	18121	18625	19387	20362	23380
Real GDP (2009 Chained \$Bil.)	14615	14877	14834	14418	14779	15021	15355	15612	15962	16307	16718	17093	17690	18881
Total Consumption (\$Bil.)	9815	10036	9989	9848	10036	10264	10413	10565	10868	11264	11572	11883	12221	13145
Nonresidential Fixed Investment (\$Bil.)	1840	1948	1934	1833	1674	1803	1964	2033	2173	2224	2211	2305	2402	2687
Industrial Prod. (% Change, Annualized)	-2.2	2.5	-3.4	-11.3	5.7	3.3	2.8	1.9	3.7	-2.7	-0.1	2.2	2.5	2.2
Housing Starts (Mill. Units)	1.81	1.34	0.90	0.55	0.59	0.61	0.78	0.93	1.00	1.11	1.18	1.21	1.26	1.40
Total Light Vehicle Sales (Mill. Units)	16.5	16.1	13.2	10.4	11.8	12.7	14.4	15.5	16.4	17.4	17.5	17.1	17.0	16.5
Personal Savings Rate (%)	3.4	3.0	5.0	6.1	5.6	5.7	7.6	4.8	4.8	6.1	4.9	3.5	3.4	4.7
National Unemployment Rate (%)	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.2	5.3	4.9	4.4	4.2	4.3
AAA Corp Bond Rate (%)	5.6	5.6	5.8	5.3	4.9	4.8	3.7	4.2	4.2	3.9	3.7	3.9	4.4	5.2
10-Year Treasury Note Rate (%)	4.8	4.8	3.7	3.3	3.2	2.8	1.9	2.4	2.5	2.2	1.9	2.4	2.8	3.6
3-Month Treasury Bill Rate (%)	4.7	4.4	1.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.9	1.5	2.8
ANNUAL RATES OF CHANGE														
Real GDP	2.7	1.8	-0.3	-2.8	2.5	1.8	2.2	1.7	2.4	2.0	1.9	2.3	2.9	2.2
GDP Deflator	3.1	2.7	1.9	0.8	1.2	2.0	1.8	1.6	1.9	1.1	1.5	1.8	2.2	2.3
Consumer Price Index	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.8	0.5	1.8	1.8	2.1	2.5
QUARTERLY ANNUALIZED RATES		2016				2017				2018				
		1st	2nd	3rd	4th	1st	2nd	3rd	4th*	1st*	2nd*	3rd*	4th*	
Gross Domestic Product (\$Bil.)	18325	18538	18728	18908	19057	19250	19499	19741		19967	20225	20488	20780	
Real GDP (2009 Chained \$Bil.)	16572	16664	16778	16851	16901	17031	17157	17284		17391	17520	17659	17780	
Total Consumption (\$Bil.)	11430	11537	11618	11702	11757	11898	11924	12012		12095	12179	12263	12345	
Nonresidential Fixed Investment (\$Bil.)	2188	2205	2224	2225	2263	2292	2320	2346		2369	2390	2413	2437	
Industrial Production (% Change, Annualized)	-1.3	-0.7	0.8	0.7	1.5	5.6	-1.5	3.0		2.5	2.3	2.5	2.5	
Housing Starts (Mill. Units)	1.15	1.16	1.15	1.25	1.24	1.17	1.17	1.25		1.20	1.25	1.27	1.30	
Total Light Vehicle Sales (Mill. Units)	17.3	17.2	17.5	17.8	17.1	16.8	17.1	17.3		17.0	17.0	17.0	17.0	

*Estimated

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Traditionally, equities of water utilities have been purchased for safety, income, and well-defined earnings. These stocks would lag the market during rallies and outperform during downturns. Investors were also willing to accept less total return in exchange for low volatility and better defined earnings and dividend prospects. This pattern has changed in the recent past.

Almost every member of the water group is in the midst of a large construction program aimed at replacing aging pipelines and waste treatment facilities. In general, balance sheets are only rated about average, as they have needed to add debt to fund capital investments.

The regulatory climate of the states where a utility operates plays a significant role in its earnings and dividends potential. This is because state authorities determine the rate of return on utilities' investment in new plant. Unlike the situation faced by their cousins, electric utilities, the relationship between regulators and water companies has been positive.

Size Mattered Last Quarter

One of the major developments over the past three months was the dichotomy in the performance of the different stocks in the Water Utility Industry. The five largest equities by market capitalization, had these results: *American States Water* (+10.4%), *American Water Works* (+9.0%), *Aqua America* (+14.5%), *California Water* (+12.7%), and *SJW Group* (+10.2%). The four stocks that had a market cap that averaged from \$200 million to \$750 million posted these numbers: *Connecticut Water* (-6.2%), *Consolidated Water* (-3.0%), *Middlesex Water* (-3.4%), and *York Water* (-5.1%). A few conclusions can be drawn from the stark differences in returns. First, the five mid- to large-cap stocks all outperformed the S&P 500 Index by a wide margin. Second, not only did the four small stocks not keep pace with their larger peers, but they all had a negative price performance.

Since the smaller companies didn't have earnings misses nor lower guidance, the evidence seems to suggest that there is a greater demand for large-cap stocks. This makes sense when considering the makeup of the market. Large institutions, pension and mutual funds, and ETFs, generally shy away from small-cap stocks. Why? The answer is these participants typically take positions in companies that would represent 2%-3% of their portfolio. For a \$5 billion portfolio, that works out to an average stake of \$125 million. That would represent a 28% ownership in *York Water*. Institutional investors don't want to have that type of exposure to any one company. In addition, just the mechanics of trying to purchase more than a 25% stake in a company would also almost surely drive up the price of the outstanding shares considerable. Plus, exiting such a position would have the opposite effect.

Large Construction Programs

Following several decades of neglect, the nation's water infrastructure was left in terrible condition. Pipeline systems were antiquated and waste facilities needed to be upgraded and expanded to handle greater demand. The neglect was not purposeful. It was mostly caused by regulators not wanting to raise customers (i.e. voters) water bills, and utilities not wanting to make sizable investments, in which there was uncertainty regarding the what level of return they would be granted. Fortu-

INDUSTRY TIMELINESS: 79 (of 97)

nately, the two sides got together and realized that massive amount of funds would be required to modernize the domestic water delivery systems. Though they are playing catch up, most believe the industry and regulators have done a decent job of addressing the issue. Fixing the water infrastructure will still take many years, but the commitment has been made to resolve the problem.

Regulation Remains Key

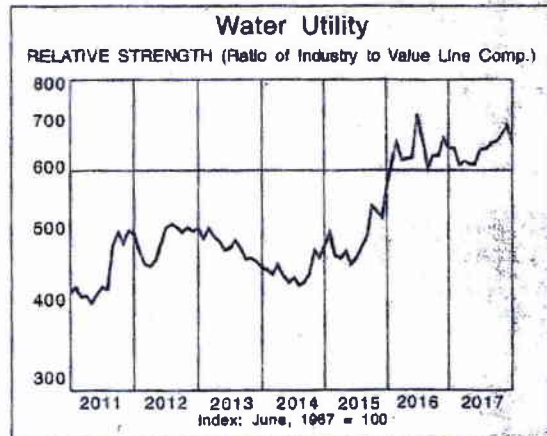
Perhaps the most important reason behind the strong operational performance turned in by this group is due to the overall national regulatory climate. State authorities realized that the past history of keeping water consumers bills too low came at a high cost. Most public utility commissions understood that they would have to work in partnership with the industry to make sure that the burdensome construction programs were undertaken. Since regulators literally legislate what a utility is allowed to earn on its investment, their importance cannot be overstated.

Conclusion

Shares of water utilities are currently trading in uncharted territory. Aided most likely by strong institutional demand, and a limited supply of equity, the large- and mid-cap stocks in the group have done extremely well. Of the five equities that are of this size, four are ranked 2 (Above Average) for Timeliness and the other garners a 3 (Average) ranking. Of the small-cap members of this group, one is timely, one is neutrally ranked, and the other two are expected to underperform the market in the year ahead.

We caution investors that these stocks may not be as safe as they have been in the past. That's because the larger utilities have seen their stocks rise to near all-time highs. For example, the current yield on this group's stocks is only about equal to the *Value Line* median. Also, though inflation remains tame, the Federal Reserve has indicated that there will probably be several more interest rate hikes next year. This could make bonds more attractive to income-oriented investors. In any case, subscribers should be aware that these stocks may carry more risk than their Beta co-efficients and Safety ranks indicate.

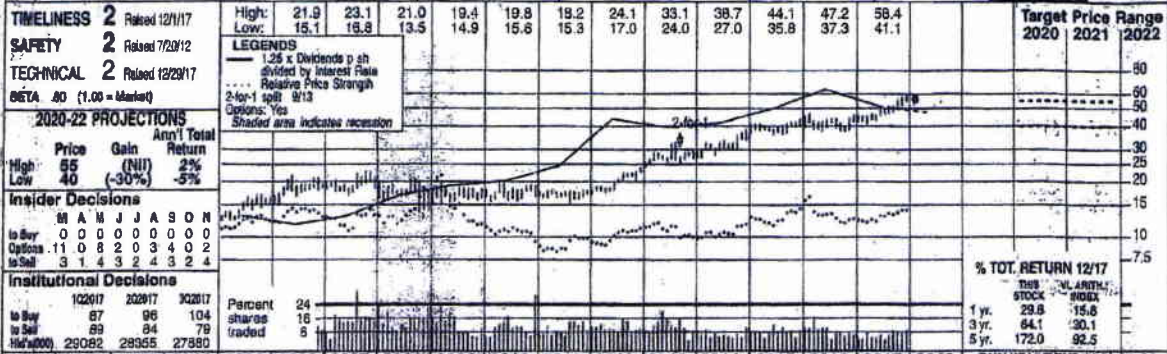
James A. Flood



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AMER. STATES WATER NYSE-AWR



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-22
5.53	8.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	12.40	12.65	12.85	15.95
1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.85	2.67	2.81	2.70	2.65	3.05	3.05	3.85
.37	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.51	1.57	1.60	1.82	1.85	1.85	1.85	2.35
.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	.99	1.06	1.06	1.35
1.59	1.34	1.68	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.15	1.77	2.32	1.89	2.39	3.55	3.15	3.15	3.15	3.60
6.81	7.02	8.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.20	14.85	14.85	16.80
30.24	30.36	30.42	33.50	33.80	34.10	34.46	34.80	37.06	37.26	37.70	38.53	38.72	38.29	38.50	38.57	38.70	38.80	38.80	37.00
16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.8	25.6	26.1			
.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.35	1.27			
3.9%	3.8%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	2.0%			

CAPITAL STRUCTURE as of 9/30/17

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-22
28.0	28.8	29.5	41.4	42.0	54.1	62.7	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	38.3%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%	38.4%
8.5%	8.9%	3.2%	5.8%	2.0%	2.5%	--	--	2.5%	5%	1.6%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
56.9%	57.0%	68.0%	67.4%	74.1%	78.0%	81.8%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%
77.4	825.3	866.4	865.0	896.5	917.8	981.5	1009.5	1080.8	1150.9	1200	1250	1250	1250	1250	1250	1250	1250	1250	1250
8.7%	6.4%	5.9%	7.6%	7.1%	8.3%	8.9%	8.6%	9.0%	8.6%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.8%	5.7%	6.0%	5.3%	5.0%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
58%	64%	81%	47%	49%	45%	47%	53%	54%	59%	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%

Leases, Uncapitalized: Annual rentals \$2.5 mill.
 Pension Assets-12/16 \$150.9 mill.
 Pfd Stock None. Oblg. \$180.4 mill.

Common Stock 36,679,175 shs. as of 10/1/17

MARKET CAP: \$2.1 billion (Bld Cap)

CURRENT POSITION

2015	2016	9/30/17
4.4	4	6.7
18.9	20.0	29.4
109.4	146.5	110.6
132.7	166.9	146.7
50.6	43.7	53.8
28.3	90.3	48.3
44.6	43.9	51.8
123.5	177.9	151.3

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to 261,002 customers in 75 cities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,940 customers in the city of Big Bear

Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (8/11). Has 736 employees. BlackRock, Inc. owns 11.7% of our shares; Vanguard, 9.5%; off. & dir. 1.5%. (4/17 Proxy). Chairman Lloyd Ross. President & Chief Executive Officer: Robert J. Spronis, Inc. CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

ANNUAL RATES of change (per sh)

10 Yrs.	5 Yrs.	Est'd '14-'16 to 29-'22
5.5%	3.0%	4.5%
7.5%	6.5%	6.0%
10.0%	9.5%	6.5%
7.0%	10.5%	7.5%
5.5%	5.0%	4.0%

American States Water has solid earnings prospects. We estimate that the water utility earned \$1.85 per share in 2017, thanks, in part, to an unusual gain resulting from the sale of certain assets. Even without this windfall, however, the company would still have likely recorded a 6% increase in its share net. The positive momentum from its core water operations should enable the company's share net to reach \$1.85 once again in 2018.

opportunity for growth. No matter how efficiently a utility is run, its profitability is limited to what state regulators allow. Through its ASUS business, which represents about 20% of net income, the company has been involved in taking over the management of water systems of major U.S. military installation. ASUS has already signed several 50-year contracts, and we expect to see more agreements reached in the coming years as privatization in this sector increases.

QUARTERLY REVENUES (\$ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	102.0	115.6	138.3	109.9	465.8
2015	100.9	114.8	133.0	110.1	458.8
2016	93.5	112.0	123.8	106.8	436.1
2017	98.8	113.2	124.4	108.6	445
2018	102	118	135	115	470

Our earnings forecasts are based upon constructive regulatory treatment. As is the protocol in California, a utility petitions state authorities for rate relief every three years. The company's Golden Gate Water subsidiary filed a general case in July of last year. The application is for the years 2019, 2020, and 2021. A final decision is expected by the end of 2018. The California Public Utility Commission has been reasonable in the past, as it has worked with utilities that have had to spend heavily to upgrade antiquated pipeline systems as well as successfully get customers to reduce consumption because of droughts.

Timely shares of American States have been doing well, of late. Since our last report three months ago, AWR has increased over 10%. By comparison, the S&P 500 has risen only about 6%. Typically, water stocks have been defensive investments for those seeking income. This pattern has changed, possibly due to the limited amount of shares available in the large-cap sector of the water industry. Indeed, AWR is now trading above our projected 2020-2022 Target Price Range. Also, potential interest rates hikes by the Federal Reserve may now make this group less suitable for conservative accounts.

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.28	.39	.54	.36	1.57
2015	.32	.41	.56	.31	1.60
2016	.28	.45	.59	.30	1.62
2017	.34	.62	.57	.32	1.85
2018	.39	.48	.50	.38	1.85

The nonregulated business provides

James A. Flood January 12, 2018

QUARTERLY DIVIDENDS PAID B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.2025	.2025	.213	.213	.83
2015	.213	.213	.224	.224	.87
2016	.224	.224	.224	.242	.91
2017	.242	.242	.255	.255	.99
2018					

A) Primary earnings. Excludes nonrecurring gains/losses: '04, 7c; '05, 13c; '08, 3c; '08, (14c); '10, (23c); '11, 10c. Next earnings report due early February. (B) Dividends historically paid in early March, June, September, and December. = Div'd reinvestment plan available. (C) In millions, adjusted for split.

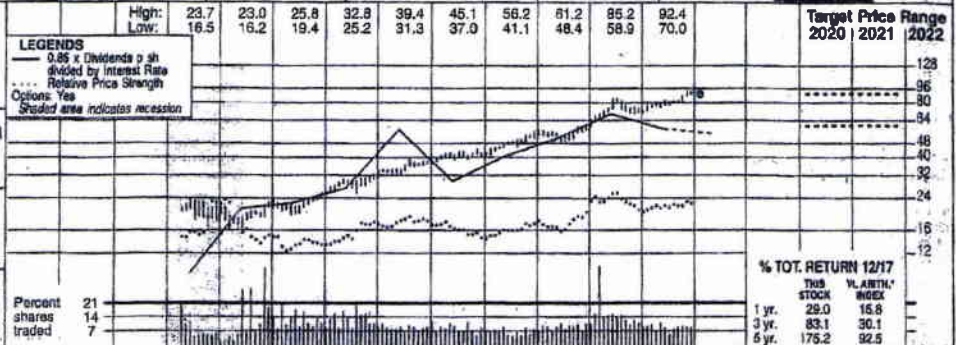
Company's Financial Strength A
 Stock's Price Stability 75
 Price Growth Persistence 75
 Earnings Predictability 85

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AMERICAN WATER NYSE-AWK

RECENT PRICE **89.08** P/E RATIO **28.1** (Trailing: 30.2 Median: NMF) RELATIVE P/E RATIO **1.37** DIVD YLD **2.0%** VALUE LINE **1785**

TIMELINESS 2 Raised 11/17/17
SAFETY 3 New 7/25/08
TECHNICAL 3 Lowered 1/12/16
BETA .53 (1.00 = Market)



2020-22 PROJECTIONS

High	Low	Price	Gain	Return
90	60	90	(Nil)	3%
90	60	60	(-35%)	-6%

Insider Decisions

M	A	M	J	J	A	S	O	N
to Buy	0	0	0	0	0	0	0	0
to Sell	2	0	2	0	0	1	0	0

Institutional Decisions

10/31/17	10/31/17	10/31/17	
to Buy	289	281	262
to Sell	302	291	292
Net Buy	160388	158865	160732

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
13.08	13.84	14.61	13.98	15.49	16.18	16.25	16.28	16.78	17.72	18.54	18.95	20.10	20.10	20.10	20.10	20.10	20.10	20.10	20.10	20.10	20.10
.65	0.47	2.87	2.89	3.58	3.73	4.27	4.36	4.75	5.13	5.28	5.80	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20
4.97	0.214	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	3.00	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.30	6.51	7.36	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.90	32.40	30.90	30.90	30.90	30.90	30.90	30.90	30.90	30.90	30.90
160.00	160.00	160.00	174.63	175.00	175.56	176.99	179.25	179.46	178.28	178.10	178.50	179.00	179.00	179.00	179.00	179.00	179.00	179.00	179.00	179.00	179.00
18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
1.14	1.04	9.3	1.05	1.06	1.12	1.05	1.03	1.05	1.03	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$7482.0 mil. Due in 5 Yrs \$1698.0 mil.
 LT Debt \$6572.0 mil. LT Interest \$349.0 mil. (55% of Cap)

Leases, Un capitalized: Annual rentals \$14.0 mil.
Pension Assets 12/18 \$1449.0 mil.
Obliq. \$1864.0 mil.
Prd Stock \$9.0 mil. **Pfd Div'd** \$5 mil

Common Stock 178,375,400 shs. as of 10/28/17

MARKET CAP: \$15.9 billion (Large Cap)

CURRENT POSITION	2015	2016	9/30/17
Cash Assets	45.0	75.0	93.0
Accts Receivable	256.0	269.0	312.0
Other	357.0	440.0	455.0
Current Assets	658.0	784.0	860.0
Accts Payable	128.0	154.0	144.0
Debt Due	682.0	1423.0	790.0
Other	725.0	815.0	813.0
Current Liab.	1533.0	2392.0	1747.0

ANNUAL RATES	Past 10 Yrs	Past 5 Yrs	Est'd '14-'16 to '20-'22
Revenues	3.0%	3.5%	4.5%
"Cash Flow"	23.0%	8.5%	8.5%
Earnings	11.0%	8.5%	8.5%
Dividends	9.0%	10.0%	10.0%
Book Value	1.5%	4.0%	5.5%

Cal-endar	QUARTERLY REVENUES (\$ mil.)	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	679.0 754.8 846.1 731.4	3011.3
2015	698.0 782.0 886.0 783.0	3159.0
2016	743.0 827.0 930.0 902.0	3302.0
2017	756.0 844.0 936.0 844	3380
2018	770 895 1040 895	3600

Cal-endar	EARNINGS PER SHARE	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	.39 .62 .86 .52	2.39
2015	.44 .68 .96 .56	2.64
2016	.46 .77 .83 .57	2.62
2017	.52 .73 1.13 .62	3.00
2018	.59 .84 1.19 .59	3.30

Cal-endar	QUARTERLY DIVIDENDS PAID	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2014	.26 .31 .31 .31	1.21
2015	.31 .34 .34 .34	1.33
2016	.34 .375 .375 .375	1.47
2017	.375 .415 .415 .415	1.62
2018		

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 15 million people in over 47 states and Canada. (Regulated presence in 16 states.) Nonregulated business assets municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86.5% of 2016 revenues.

American Water Works' prospects are bright. In a December investor presentation, management stated once again that the in-house target for annual growth over the next five-year period for both earnings and dividends is at the high end of the 7% to 10% range. This is well above the projected industry average. **Acquisitions and cost controls will likely remain the twin pillars of the utility's operating strategy.** The water industry in the United States is very fragmented and inefficient. As a result, there are many small and midsize water authorities that do not have the funds required to make the necessary upgrades to their aging water facilities. Hence, American Water has a continual pipeline of purchases in the works. The company is able to integrate these new additions into its asset base while achieving substantial cost savings. Moreover, regulators are happy (more below) when utilities can provide better service at a lower price. **Regulators will probably have a major say in the company's future performance.** As the utility continues to expand, its relationship with different state water

New Jersey is its largest market accounting for 26.4% of regulated revenues. Has 8,800 employees. The Vanguard Group, owns 9.8% of outstanding shares; BlackRock, Inc., 8.2%; officers & directors, less than 1.0%. (3/17 Proxy). President & CEO: Susan N. Story. Chair: George MacKenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel: 856-346-8200. Internet: www.amwater.com.

authorities should become even more important as it will have to file more rate cases. On the positive side of the ledger, American Water's internal (non-GAAP) operating expense margin continues to decline. Indeed, the ratio has decreased from 44% in 2010 to about 34% this year. The goal is 32.5% by 2020-2022. In any case, being able to quantify savings keeps a utility in the good graces of those ruling on rate filings. **The capital budget has been raised substantially.** Even though the company is already in the midst of a major construction program, management just increased the estimated outlays by about \$1 billion to bring the new expected five-year total to somewhere between \$8.0 billion and \$8.6 billion. American Water's finances are average, and probably will remain so for the next several years. **These timely shares will most likely not interest long-term investors.** AWK has outperformed the broader market averages, of late. Indeed, the stock recently traded above our projected 2020-2022 Target Price Range. *James A. Flood* *January 12, 2018*

(A) Diluted earnings. Excludes nonrecurring losses: '08, \$4.62; '09, \$2.63; '11, \$0.07. Discontinued operations: '05, (\$0.04); '11, \$0.03; '12, (\$0.10); '13, (\$0.01). GAAP used as of 2014. Next earnings report due mid-February. Quarterly earnings do not sum in '16 due to rounding. (B) Dividends paid in March, June, September, and December. = Div. reinvest- ment available. (C) In millions. (D) Includes intangibles. On 9/30/17: \$1.573 billion, \$7.70/share. (E) Pro forma numbers for '08 & '07.

Company's Financial Strength B+
 Stock's Price Stability 100
 Price Growth Persistence 85
 Earnings Predictability 90

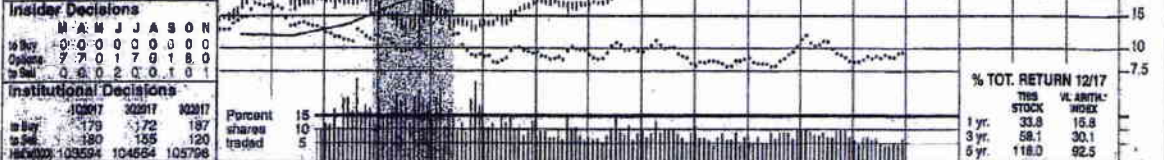
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AQUA AMERICA NYSE-WTR

RECENT PRICE **38.65** P/E RATIO **27.4** (Trading: 28.1 Median: 22.0) RELATIVE P/E RATIO **1.34** DIV'D YLD **2.2%** VALUE LINE **1786**

TIMELINESS **2** Raised 11/17/17 High: 23.9 21.3 17.6 17.2 16.4 19.0 21.5 28.1 28.2 31.1 35.8 39.6
 SAFETY **2** Raised 4/20/12 Low: 18.1 15.1 9.8 12.3 13.2 15.4 18.8 20.6 22.4 24.4 28.0 29.4
 TECHNICAL **3** Lowered 1/5/15
 BETA .75 (1.00 = Market)

2020-22 PROJECTIONS
 Price Gain Ann'l Total
 High 45 (+15%) 6%
 Low 35 (-10%) Nil



Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-22	
Revenues per sh	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.82	4.50	4.70	4.70	Revenues per sh	
"Cash Flow" per sh	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.46	1.51	1.82	1.89	1.87	2.07	2.07	2.25	2.25	"Cash Flow" per sh	
Earnings per sh	.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	1.32	1.36	1.45	1.45	Earnings per sh	
Div'd Decl'd per sh	.24	.26	.28	.29	.32	.32	.35	.41	.44	.47	.50	.54	.58	.63	.69	.74	.79	.85	.85	Div'd Decl'd per sh	
Cap'l Spending per sh	.97	.96	1.06	1.23	1.47	1.54	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.18	2.55	2.45	2.45	Cap'l Spending per sh	
Book Value per sh	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	11.10	11.75	11.75	Book Value per sh	
Avg Ann'l P/E Ratio	14.27	14.49	15.43	15.87	16.21	16.54	16.75	16.91	17.01	17.26	17.80	17.54	17.79	17.89	17.89	17.89	17.89	17.89	17.89	17.89	Avg Ann'l P/E Ratio
Relative P/E Ratio	2.55	2.56	2.45	2.51	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	24.5	24.5	24.5	24.5	Relative P/E Ratio
Avg Ann'l Div'd Yield	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.26	1.20	1.20	1.20	1.20	Avg Ann'l Div'd Yield

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$2058.2 mill. Due in 5 Yrs \$430.5 mill.
 LT Debt \$1952.5 mill. LT Interest \$80.0 mill. (50% of Cap'l)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-22	
Revenues (\$mill)	602.5	627.0	670.5	726.1	712.0	757.8	768.6	779.9	814.2	819.9	800	840	840	840	840	840	840	840	840	840	Revenues (\$mill)
Net Profit (\$mill)	95.0	97.9	104.4	124.0	144.8	153.1	205.0	213.9	201.8	234.2	245	260	260	260	260	260	260	260	260	260	Net Profit (\$mill)
Income Tax Rate	38.9%	39.7%	38.4%	39.2%	32.9%	39.0%	10.0%	10.5%	6.9%	8.2%	9.6%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	Income Tax Rate
AFUDC % to Net Profit	---	---	---	---	---	---	1.1%	2.4%	3.1%	3.6%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	AFUDC % to Net Profit
Long-Term Debt Ratio	55.4%	54.1%	55.8%	56.6%	52.7%	52.7%	48.9%	48.5%	50.3%	48.4%	47.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	Long-Term Debt Ratio
Common Equity Ratio	44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	51.1%	51.5%	49.7%	51.5%	53.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	Common Equity Ratio
Total Capital (\$mill)	2191.4	2306.6	2495.5	2708.2	2646.5	2929.7	3003.6	3215.0	3489.5	3587.7	3735	4100	4100	4100	4100	4100	4100	4100	4100	4100	Total Capital (\$mill)
Net Plant (\$mill)	2792.8	2897.4	3227.3	3489.3	3612.9	3936.2	4167.3	4402.0	4688.9	5001.8	5080	5275	5275	5275	5275	5275	5275	5275	5275	5275	Net Plant (\$mill)
Return on Total Cap'l	5.9%	5.7%	5.9%	5.9%	6.9%	6.9%	8.0%	7.8%	6.9%	7.6%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	Return on Total Cap'l
Return on Shr. Equity	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	Return on Shr. Equity
Return on Com Eq	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	Return on Com Eq
Retained to Com Eq	3.2%	2.8%	2.7%	3.7%	4.6%	4.3%	6.7%	6.1%	4.7%	5.8%	5.5%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	Retained to Com Eq
All Div'ds to Net Prof	67%	70%	72%	65%	60%	61%	50%	52%	60%	56%	58%	59%	59%	59%	59%	59%	59%	59%	59%	59%	All Div'ds to Net Prof

MARKET CAP: \$6.9 billion (Large Cap)
 CURRENT POSITION 2015 2016 9/30/17
 Cash Assets 3.2 3.7 4.1
 Receivables 99.1 97.4 104.9
 Inventory (Avg Cost) 12.4 13.0 18.6
 Other 13.7 14.6 12.7
 Current Assets 128.4 128.7 138.3
 Acc't Payable 56.5 59.9 63.4
 Debt Due 52.3 157.2 105.7
 Other 84.4 84.4 83.9
 Current Liab. 193.2 201.5 253.0

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Has 1,551 employees. Acquired AquaSource, 7/13; North Maine Utilities, 7/15; and others. Water supply revenues: 2016: residential, 59%; commercial, 18%; industrial, wastewater & other, 25%. Chf. & dir. own less than 1% of the common stock; Vanguard Group, 8.3%; Blackrock, Inc. 8.1%; State Street Capital, 6.0% (3/17 Proxy). President & Chief Executive Officer: Christopher Franklin. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Tel: 610-525-1400. Internet: www.aquaamerica.com.

Our earnings estimates for Aqua America remain unchanged. But we have lowered our revenue forecast for both last year's fourth quarter and 2018 as water sales have been declining. On the positive side, the water utility's operating expenses have been decreasing at a higher rate thanks to lower power and chemical costs. Indeed, we think Aqua's 2017 share net came in at \$1.36, versus 2016's tough \$1.32 comparison. Rate relief granted by several states over the past 12 months will be in effect all of this year. This, plus expected new hikes in Virginia and Indiana, should enable Aqua's share earning to climb a healthy 7%, to \$1.45. Acquisitions are being made at a modest pace. Due to the fragmentation in the market (there are over 100,000 separate water districts in the U.S.), large-cap water utilities such as Aqua are continuously buying small water entities. Also, most of these authorities do not have the funds required to replace and upgrade their aging network of pipes and waste systems. Not only do the bigger water entities have the funds available for the needed capital outlays, they are also able to realize significant cost saving because the industry is rife with redundancies. The company's acquisitions made through September of last year combined with organic growth, led to only a 0.8% increase in the customer base. Management has targeted annual growth to be approximately 1.5%-2.0%, so we expect the pace to possible accelerate here. Aqua has a healthy balance sheet. Of the nine members in this group, only two merit an "A" Financial Strength rating. This leaves the company with the capacity to borrow to buy more water assets. In addition, Aqua's policy of hardly issuing any new equity is a real positive. With the stock near its all-time high, a new equity offering would probably be well received, as institutional demand for large-cap water utilities stock remains strong. These shares are timely. Also, even though WTR's long-term total return potential isn't great, it is more attractive than most other mid- and large-cap stocks in this group. So, investors that stuck on a water utility equity may find WTR of interest.

Year	2014	2015	2016	2017	2018
Quarterly Revenues (\$mill)	182.7	195.3	210.5	191.4	177.9
Earnings per Share	.24	.31	.38	.27	1.20
Dividends per Share	.24	.26	.28	.29	.32

Year	2014	2015	2016	2017	2018
Quarterly Revenues (\$mill)	182.7	195.3	210.5	191.4	177.9
Earnings per Share	.24	.31	.38	.27	1.20
Dividends per Share	.24	.26	.28	.29	.32

(A) Diluted eqs. Excl. nonrec. gains: '01, 2; '02, 4; '03, 3; '12, 18. Excl. gain from disc. operations: '12, 7; '13, 9; '14, 11. May not sum due to rounding. Next earnings report due mid-February.
 (B) Dividends historically paid in early March, June, Sept. & Dec. = Div'd. reinvestment plan available (5% discount).
 (C) In millions, adjusted for stock splits.

Company's Financial Strength **A**
 Stock's Price Stability **95**
 Price Growth Persistence **65**
 Earnings Predictability **90**

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CALIFORNIA WATER NYSE-CWT

RECENT PRICE 44.70	P/E RATIO 30.0 (Trading: 31.5, Median: 20.0)	RELATIVE P/E RATIO 1.46	DIV YLD 1.6%	VALUE LINE 1787
TIMELINESS 2 Raised 01/17	High: 22.9	Low: 18.4	2020-22 PROJECTIONS	Target Price Range 2020-2021-2022
SAFETY 3 Lowered 7/27/07	23.3	24.1	24.9	26.0
TECHNICAL 2 Raised 12/21/17	18.4	18.7	19.3	19.5
BETA .80 (1.00 = Market)	17.1	18.7	18.4	22.5

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue per sh	8.13	8.67	8.18	8.58	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.70	13.70	14.10
"Cash Flow" per sh	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	2.70	2.80
Earnings per sh	.47	.53	.51	.73	.74	.57	.75	.85	.98	.91	.86	1.02	1.02	1.19	.94	1.01	1.49	1.55
Div'd Div'd per sh	.58	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.65	.67	.69	.72	.75

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Capex	2.04	2.31	2.19	1.87	2.01	2.14	1.84	2.41	2.88	2.97	2.83	3.04	2.58	2.76	3.59	4.77	3.85	3.85
Book Value per sh	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.11	13.41	13.76	14.30	14.75
Common Shs Outstanding	30.36	30.38	33.86	36.73	38.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	47.81	47.88	47.97	48.28	48.50
Avg Ann'd P/E Ratio	1.37	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.04	1.25	1.56	1.51	1.45
Avg Ann'd Div'd Yield	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.9%	2.3%	1.9%	2.4%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	367.1	410.3	448.4	480.4	501.8	560.0	584.1	609.4	660.0	688.3	709.4	660.0	688.3	709.4	660.0	688.3	709.4	660.0
Net Profit	31.2	39.8	40.6	37.7	36.1	42.6	47.3	58.7	65.0	68.0	73.0	78.0	83.0	88.0	93.0	98.0	103.0	108.0
Income Tax Rate	39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	30.3%	33.0%	36.0%	35.5%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
APUDC % to Net Profit	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	4.3%	2.7%	4.3%	6.1%	6.0%	4.3%	6.1%	6.0%	4.3%	6.1%	6.0%	4.3%

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	110.5	158.4	191.2	137.4	597.5	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0
"Cash Flow"	122.0	144.4	183.5	138.4	588.3	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0
Earnings	121.7	152.4	184.3	151.0	609.4	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0
Dividends	122.0	171.1	211.7	154.2	660.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0
Book Value	130	175	215	166	685	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0

Year	2014	2015	2016	2017	2018
Revenue	110.5	158.4	191.2	137.4	597.5
"Cash Flow"	122.0	144.4	183.5	138.4	588.3
Earnings	121.7	152.4	184.3	151.0	609.4
Dividends	122.0	171.1	211.7	154.2	660.0
Book Value	130	175	215	166	685

Year	2014	2015	2016	2017	2018
Revenue	110.5	158.4	191.2	137.4	597.5
"Cash Flow"	122.0	144.4	183.5	138.4	588.3
Earnings	121.7	152.4	184.3	151.0	609.4
Dividends	122.0	171.1	211.7	154.2	660.0
Book Value	130	175	215	166	685

California Water Service Group stock is trading around recently established all-time highs. The regulated water utility wrapped up 2017 by surging through the \$45-per-share price threshold on more than one occasion, with shares rising 33% on the year. Since our previous review, the equity is up more than 10% in value. Indeed, the investment community has handsomely rewarded the company for delivering consistent top- and bottom-line growth, quarter to quarter. However, fourth-quarter share-net may slip by two cents. For 2018, our ranking system suggests another strong performance may be in store, as CWT shares are poised to outpace the year-ahead broader market averages (Timeliness: 2).

We think the positives will continue to outweigh the negatives here. California Water Service is enjoying the fruits of recent rate increases by the California regulatory authority. In fact, the decision has added more than \$30 million in incremental revenues so far. In addition, favorable changes to the corporate tax rate should help lift profits this year. To address the latter, the company's operating

expenses are still on the rise, despite some progress in the second quarter. Water costs (only investment upgrades can be recouped) from greater customer usage, as well as periodic increases in wholesale supplier rates, are pushing expenses higher. Overall, we are adding \$10 million and \$0.10 to our 2018 revenue and earnings estimates, to \$685 million and \$1.55 a share, respectively.

Aggressive infrastructure spending remains on tap through next decade. As previously noted, California has close to \$500 million left on its investment budget, and has earmarked the funds for upgrades to its aging infrastructure and water systems. On top of that, these improvements are likely to be accompanied by bolt-on acquisitions.

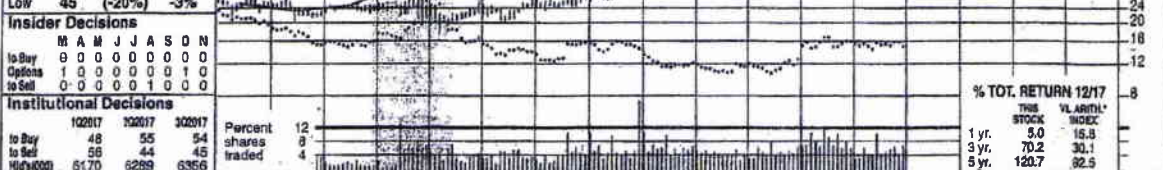
This issue is best suited for short-term accounts. On the other hand, CWT shares have been on a multiyear price ascent and, as a result, total return potential 3 to 5 years out is unappealing. Thus, we think investors with a longer-term holding period can find more-attractive options elsewhere, at this time.

Nicholas P. Patrikis January 13, 2018

CONNECTICUT WATER NDQ-CTWS

RECENT PRICE **57.13** P/E RATIO **25.1** (Trailing: 27.7 Median: 20.0) RELATIVE P/E RATIO **1.22** DIV YLD **2.1%** VALUE LINE **1788**

TIMELINESS 2 Raised 1/15/18	High: 27.7	25.6	29.0	26.4	27.9	29.1	32.8	36.4	37.5	39.9	58.3	65.0	Target Price Range
SAFETY 3 New 1/19/13	Low: 20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8	31.0	33.2	37.5	50.8	2020 2021 2022
TECHNICAL 1 Raised 1/12/18	LEGENDS: 1.50 x Dividends p sh Divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession												
BETA .85 (1.00 = Market)	2020-22 PROJECTIONS												
Price Gain Amt'l Total													
High 65 (+15%)	45 (-20%)	8%	-3%										



Insider Decisions		Percent shares traded											
M A M J J A S O N		12											
to Buy 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4											
to Sell 0 0 0 0 0 0 0 0 0 0 0 0 0 0		8											
Institutional Decisions		Percent shares traded											
102817 102817 102817		12											
to Buy 48 55 54		4											
to Sell 56 44 45		8											
Net Buy (1000) 8170 6289 6356		8											

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	VALUE LINE PUB. LLC 20-22
5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	8.93	7.55	7.93	9.47	8.29	8.45	5.58	8.77	8.75	8.55	Revenues per sh 12.30
1.78	1.78	1.89	1.91	1.82	1.52	1.90	1.95	1.93	2.04	2.11	2.84	2.63	2.97	3.18	3.51	3.35	3.55	"Cash Flow" per sh 4.10
1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.56	1.92	2.04	2.08	2.20	2.40	Earnings per sh A 2.90
.30	.81	.33	.34	.85	.88	.87	.88	.90	.92	.94	.96	.98	1.01	1.05	1.12	1.18	1.24	Div'd Decl'd per sh B 1.46
1.96	1.98	1.49	1.58	1.58	1.98	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.11	4.29	5.33	4.50	4.38	Cap'l Spending per sh C 3.35
9.25	10.08	10.46	10.94	11.52	11.80	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.83	20.01	20.98	24.40	24.50	Book Value per sh D 26.80
7.55	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.12	11.19	11.25	12.10	12.25	Common Shs Outst'g E 12.80
21.5	24.3	23.5	22.9	28.8	29.0	23.0	22.2	18.4	20.7	23.0	19.4	16.4	17.5	17.8	23.3	25.7	25.7	Avg Ann'l P/E Ratio 15.0
1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.89	1.22	1.25	1.25	Relative P/E Ratio 1.20
3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	2.9%	2.3%	2.1%	2.1%	Avg Ann'l Div'd Yield 2.7%

CAPITAL STRUCTURE as of 9/30/17		Percent shares traded											
Total Debt \$282.2 mil. Due in 6 Yrs \$19.9 mil.		12											
LT Debt \$255.2 mil. LT Interest \$8.6 mil. (47% of Cap'l)		4											
Leases, Uncapitalized: Annual rentals \$3 mil.		8											
Pension Assets-12/18 \$62.7 mil.		8											
Pfd Stock \$0.8 mil. Pfd Divd N/A		8											
Common Stock 12,068,289 shs.		8											
MARKET CAP: \$700 million (Small Cap)		8											

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). In 2016, 95% of net income was derived from these activities. Provides water services to 440,000 people in 79 municipalities throughout Connecticut and Maine. Acquired The Maine Water Company, January, 2012; Blodford and Saco Water, December, 2012; Heritage Village, February, 2017. Inc. Conn. Has 268 employees. Chairman/President/Chief Executive Officer: Eric W. Thornburg. Officers and directors own 2.5% of the common stock; BlackRock, Inc., 7.2% (4/17 proxy). Address: 93 West Main Street, Clinton, CT 08413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

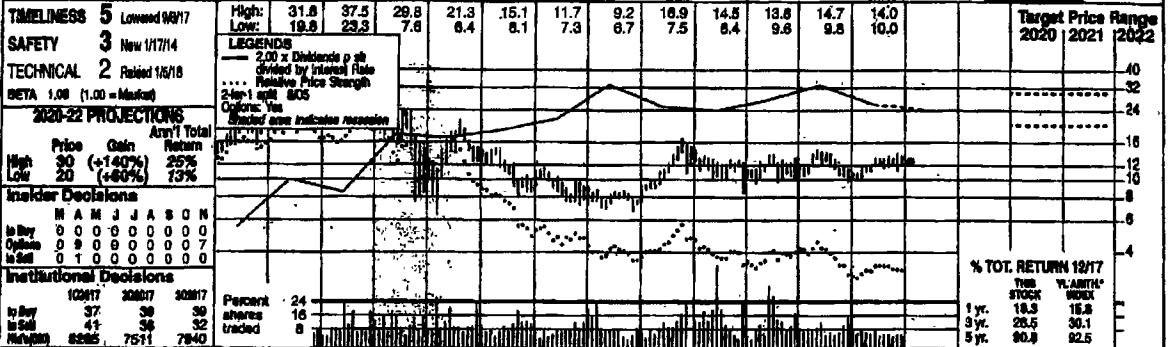
Connecticut Water Service reported third-quarter financial results in line with our expectations. Revenues of \$31.8 million rose 8%, year over year, while earnings of \$0.90 per share logged a similar advance. There were several noteworthy highlights during the September period. These consist of the completion and inclusion of the Heritage Village Water and Avon Water acquisitions, which added about 9,500 customers and \$2.4 million to the top line. Moreover, Connecticut finalized a \$80 million water treatment facility upgrade.

The company has received approval to raise its rates. As noted in our previous review, Connecticut Water's subsidiary, The Maine Water Company, filed for a rate hike to recoup about \$5 million in past water system upgrades and associated operating costs. The rate increase (effective as of December 1st) will impact roughly 16,500 customers and lift its annual revenue haul by more than \$1.5 million. **Additional hikes are expected down the road.** No doubt, infrastructure upgrades are apt to persist over the pull to next decade, as the push to revamp outdated water pipes and mains continues to be the primary focus for most water utilities. Improvements in water treatment plants are also in the cards. Over the course of this year, we believe CTWS will match its 2017 spending budget, at around \$66 million. As always, to help fund (or recoup) these investments, we expect periodic rate filings to come across the public utilities commission's desk. **We have modestly raised our 2018 top- and bottom-line estimates.** Due to the abovementioned rate approval and wider customer base, we are adding \$2 million and \$0.05 to this year's revenue and earnings forecasts, to \$117 million and \$2.40 a share, respectively. Meanwhile, our financial projections for 2017 are unchanged. **This issue ought to appeal primarily to those with a short-term strategy (Timeliness: 2).** On the other hand, shares of CTWS are already trading well within our 3- to 5-year Target Price Range. Therefore, we recommend longer-term accounts wait on the sidelines for a more attractive entry point.

(A) Diluted earnings. Next earnings report due Feb. 2018.	(B) Dividends historically paid in mid-March, June, September, and December. = Div'd reinvestment plan available.	(C) In millions.	(D) Includes intangibles. In 2016: \$30.4 million/\$2.70 a share.
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CONSOL WATER CO. NDQ-CWCO RECENT PRICE **12.60** P/E RATIO **20.0** (Trailing 20.0 Median: 25.0) RELATIVE P/E RATIO **0.98** DIV YLD **2.7%** VALUE LINE **1789**



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1.41	1.52	1.68	2.02	1.12	2.71	3.41	4.52	3.99	3.49	3.79	4.49	4.35	4.46	3.86	3.89	4.25	4.40	4.40	4.25	4.00	3.75
-.52	-.50	-.68	-.77	-.37	-.87	1.20	-.95	1.18	-.86	-.83	1.17	-.96	-.80	-.89	-.95	-.75	-.60	-.75	-.60	-.75	-.85
-.35	-.32	-.42	-.49	-.23	-.50	-.79	-.50	-.74	-.43	-.42	-.64	-.58	-.42	-.51	-.27	-.55	-.70	-.70	-.55	-.70	-.70
-.20	-.21	-.21	-.23	-.12	-.24	-.20	-.33	-.28	-.30	-.30	-.30	-.30	-.30	-.30	-.30	-.31	-.34	-.34	-.34	-.34	-.34
2.24	2.30	2.19	2.24	2.77	1.83	3.54	4.48	3.18	3.00	3.11	3.29	3.32	3.21	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
2.46	2.64	3.89	4.20	2.54	7.40	8.21	8.36	8.53	8.69	8.83	9.20	9.44	9.58	9.81	9.79	10.00	10.35	10.35	10.35	10.35	10.35
7.84	7.99	11.37	11.51	23.46	14.13	14.40	14.53	14.54	14.55	14.57	14.59	14.69	14.72	14.78	14.87	14.87	14.87	14.87	14.87	14.87	14.87
13.9	21.6	18.3	23.1	NMF	43.0	35.4	37.8	18.0	26.9	22.4	12.4	20.0	28.3	22.7	44.8	37.8	37.8	37.8	37.8	37.8	37.8
7.1	1.16	1.18	1.22	NMF	2.32	1.80	2.27	1.27	1.71	1.41	-.79	1.12	1.40	1.14	2.36	1.05	1.05	1.05	1.05	1.05	1.05
4.2%	3.1%	2.6%	2.0%	7%	9%	7%	1.7%	2.0%	2.8%	3.2%	3.8%	2.0%	2.5%	2.0%	2.6%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
48.2	65.7	68.0	60.7	65.2	65.5	68.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
11.4	7.2	10.8	8.3	8.1	8.3	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
15.9%	14.8%	13.8%	11.8%	5.1%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
84.1%	85.2%	86.2%	88.2%	94.9%	96.3%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
140.7	142.7	143.9	143.3	135.8	139.4	138.9	141.2	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0
85.0	85.1	81.2	88.2	84.3	81.6	88.6	86.4	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
8.6%	8.7%	8.1%	4.9%	5.0%	7.0%	6.2%	4.4%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
9.6%	5.9%	8.7%	5.0%	4.7%	6.9%	6.2%	4.4%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
9.6%	5.9%	8.7%	5.0%	4.7%	6.9%	6.2%	4.4%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
6.5%	2.8%	4.0%	1.5%	1.0%	3.8%	3.0%	1.2%	2.1%	NMF	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
33%	52%	40%	69%	79%	48%	51%	73%	59%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%

2015	2016	2017
50.4	39.3	47.0
9.5	16.5	13.0
5.5	5.1	7.8
85.4	80.9	67.8
4.8	4.9	5.3
7.0	5.4	4.4
1.4	1.3	1.5
13.2	6.7	7.2

Year	Revenue (\$ mil)	Change (%)	Dividend Yield (%)	Book Value (\$ mil)
2014	18.3	18.9	17.0	15.4
2015	14.7	14.4	14.6	13.4
2016	14.0	15.4	14.4	14.1
2017	15.6	15.3	18.6	16.5
2018	18.0	16.0	17.5	18.5

Year	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.04	.19	.13	.06	.42
2015	.19	.15	.12	.11	.51
2016	.15	.15	.13	.10	.53
2017	.18	.11	.08	.18	.55
2018	.19	.18	.15	.18	.70

Year	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.075	.075	.075	.075	.30
2015	.075	.075	.075	.075	.30
2016	.075	.075	.075	.075	.30
2017	.075	.075	.075	.075	.30
2018	.075	.075	.075	.075	.30

BUSINESS: Consolidated Water Co. Ltd. develops and operates seawater desalination plants and water distribution systems in areas where naturally occurring supplies of potable water are scarce or nonexistent. Its desalination process involves reverse osmosis tech. It provides water in the Cayman Islands, Belize, the Bahamas, the British Virgin Islands, and Bali. At 12/31/16, it operated 13 plants with a capacity of 263 million gallons per day. Inc. Cayman Islands. Has 117 employees. President & Chief Executive Officer: Frederick McTaggart, Orl. Dir. own 2.9% of stock (4/17 proxy). Address: Regatta Office Park Windward Three, 4th Floor, West Bay Road P.O. Box 1114 Grand Cayman, KY-1102, Cayman Islands. Tel: (345) 946-4277. Internet: www.cwco.com.

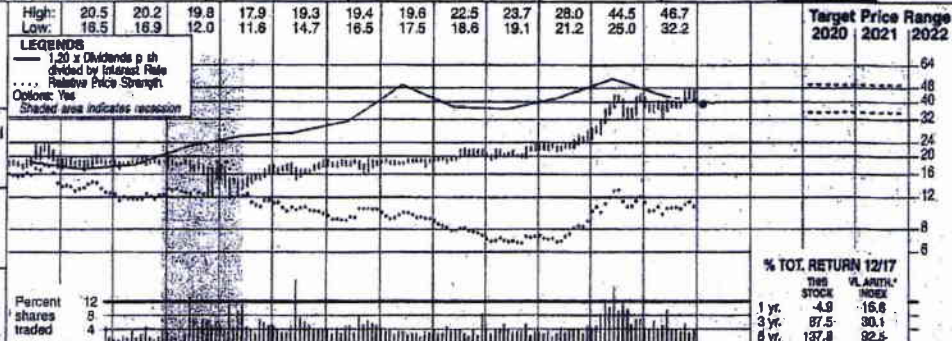
Consolidated Water is trying to divert its troubled Bali project. The desalination facility, which was completed several years ago, has been a major drag on the company's bottom line. Based on the scarcity of potable water on the island, combined with a growing population, the Nusa Dua plant had promising prospects. Losses generated by the project increased from under \$1 million in 2015, however, to \$2.5 million in 2016. In 2017, another \$1.6 million in charges were incurred. Moreover, no local strategic partnership has been made, and Consolidated is being sued by its largest customer. The company wants to cease operations at Nusa Dua by the end of the first quarter, but that probably will be held up by the pending lawsuit. A yet-to-be-constructed plant in Mexico will play a major role in Consolidated's future. For many years, the water company has been involved in the planning stages of building the Rosarito desalination plant in Baja, Mexico. Just about all of the required approvals have been granted, and construction is expected to commence in 2018. An equity partner is still needed. The plant would come on line in stages and supply water to both the Tijuana and San Diego areas. The outlook for the rest of the company's operations remains stable to mixed. The majority of Consolidated's revenues comes from the ownership of desalination facilities in various countries in the Caribbean. Results here have been steady, but negotiations regarding the extension of the company's exclusive right to provide water in the Cayman Islands expired in 2010, and temporary extensions continue to be made. In any case, despite the regulatory travails, this should remain the company's core business. Operations in Belize, the Bahamas, and the British Virgin Islands are also doing all right, despite unresolved issues with regulators. These shares are untimely. Uncertainty with the Nusa Dua plant, as well as regulatory risk in the Caribbean, leaves the company with a somewhat ill-defined future. On the positive side, the dividend was just hiked 13%, the balance sheet has almost no debt, the manufacturing sector is doing well, and the Rosarito project could lead to a nice payoff down the road. *James A. Flood January 12, 2018*

Company's Financial Strength	5+
Stock's Price Stability	30
Price Growth Performance	20
Earnings Predictability	45

MIDDLESEX WATER NDQ-MSEX

RECENT PRICE **39.09** P/E RATIO **25.9** (Trailing: 31.3 Median: 20.8) RELATIVE P/E RATIO **1.26** DIVD YLD **2.3%** VALUE LINE **1790**

TIMELINESS 4 Lowered 7/7/17
SAFETY 2 New 10/21/11
TECHNICAL 1 Raised 1/12/10
 BETA .80 (1.00 = Market)



2020-22 PROJECTIONS

Price	Gain	Ann'l Total
High	50	Return
Low	35	9%
	(+30%)	N/A
	(-10%)	N/A

Insider Decisions

M	A	M	J	J	A	S	O	N
to Buy	0	0	0	0	0	0	0	0
Options	0	7	0	0	0	0	0	0
to Sell	1	0	0	0	0	0	1	1

Institutional Decisions

10/20/17	10/20/17	10/20/17
to Buy	45	60
to Sell	51	44
Options	9400	9201
to Buy	9400	9500
Percent	12	12
shares	8	4
traded	8	4

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.10	8.55	8.40	8.40	8.40	8.40
1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.58	1.72	1.84	1.97	2.17	2.25	2.55	2.55	2.55	2.55	2.55
.66	.73	.61	.73	.71	.82	.87	.89	.72	.98	.84	.90	1.03	1.13	1.22	1.38	1.40	1.65	1.65	1.65	1.65	1.65
.62	.69	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	.91	.91	.91	.91
1.25	1.59	1.87	2.54	2.18	2.31	1.65	2.12	1.49	1.90	1.50	1.36	1.28	1.40	1.59	2.31	1.80	1.80	1.80	1.80	1.80	1.80
7.11	7.39	7.80	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	13.95	14.66	14.66	14.66	14.66	14.66
10.37	10.38	10.48	11.96	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	16.50	16.75	16.75	16.75	16.75	16.75
24.8	23.5	30.0	26.4	27.4	22.7	21.5	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.8	28.0	28.0	28.0	28.0	28.0	28.0
1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.35	1.37	1.37	1.37	1.37	1.37	1.37
3.9%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$166.8 mill. Due in 5 Yrs \$32.1 mill.
 LT Debt \$135.9 mill. LT Interest \$6.0 mill.
 (Total interest coverage: 10.8x)
 (36% of Cap'l)

Pension Assets-12/31/16 \$59.4 mill.
 Oblig. \$78.5 mill.
 Pfd Stock \$2.4 mill. Pfd Div'd: \$1 mill.

Common Stock 16,346,036 shs.
 as of 10/31/17

MARKET CAP: \$650 million (Small Cap)

CURRENT POSITION	2015	2016	9/30/17
Cash Assets	3.5	3.9	2.7
Other	20.9	22.8	27.4
Current Assets	24.4	26.7	30.1
Acc'ts Payable	8.5	12.3	12.1
Debt Due	8.7	18.2	31.0
Other	13.1	16.6	15.9
Current Liab.	28.3	47.1	59.0

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd 14-16 Yrs.
Revenues	2.0%	3.0%	3.5%
"Cash Flow"	4.5%	6.5%	8.0%
Earnings	5.0%	8.0%	9.0%
Dividends	1.5%	1.5%	5.0%
Book Value	4.0%	3.0%	4.5%

QUARTERLY REVENUES (\$ mill.)	Full Year
Cal-endar	Mar.31 Jun.30 Sep.30 Dec.31
2014	27.1 29.2 32.7 28.1 117.1
2015	28.8 31.7 34.7 30.8 126.0
2016	30.8 32.7 37.8 31.8 132.9
2017	30.1 33.0 38.2 34.7 134
2018	33.0 37.0 38.0 35.0 143

EARNINGS PER SHARE	Full Year
Cal-endar	Mar.31 Jun.30 Sep.30 Dec.31
2014	.20 .29 .42 .22 1.13
2015	.22 .31 .41 .26 1.22
2016	.29 .36 .54 .19 1.38
2017	.27 .33 .46 .34 1.40
2018	.33 .38 .60 .34 1.65

QUARTERLY DIVIDENDS PAID	Full Year
Cal-endar	Mar.31 Jun.30 Sep.30 Dec.31
2014	.19 .19 .19 .1925 .76
2015	.1925 .1925 .1925 .19875 .79
2016	.19875 .19875 .19875 .21125 .81
2017	.21125 .21125 .21125 .22375 .86
2018	

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 81,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/18, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dwayne W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add: 1500 Pinson Road, Iselin, NJ 08830. Tel: 732-634-1500. Internet: www.middlesexwater.com.

Middlesex Water Company's battle with mother nature has yet to subside. The story hasn't changed much over the past three months, as weather-related disruptions took a toll on its top line once again. Operating in the Northeast region of the U.S. leaves MSEX vulnerable to extremely volatile weather conditions, which can noticeably impact customer water consumption. Specifically, its Middlesex New Jersey operations saw revenues contract \$1.8 million, year over year, due to softer consumption, while its Delaware utility system was essentially flat, thanks to contributions from added residential customers during the period. Overall, Middlesex generated \$36.2 million in revenues for the September period, \$1.6 million less than last year's haul. This has spurred us to trim \$3.0 million off our 2017 top-line forecast, to \$134 million.

The outlook for profit growth in 2018 is good. Operating margins ought to remain relatively steady, with few changes to the cost structure expected. Meantime, a reduced income tax rate (new tax act and various investment spending deductions) is the main driver behind our im-

proved perspective. All told, we look for earnings to expand 18% this year, to \$1.65 a share (+0.05), on revenues of \$143 million (-\$2.0 million).

Long-term, infrastructure upgrades ought to bear fruit. Approximately \$12 million per year (for the next three years) is earmarked for the replacement of aging water mains, valves, and other infrastructure upgrades.

The company boosted its quarterly dividend payout by about 8%, to \$0.224 per share. Shareholders have enjoyed 45 years of consecutive dividend increases, and we don't think this streak will be broken anytime soon. At present, MSEX shares offer a yield that fractionally outpaces the average of all dividend paying stocks in *The Value Line Investment Survey*.

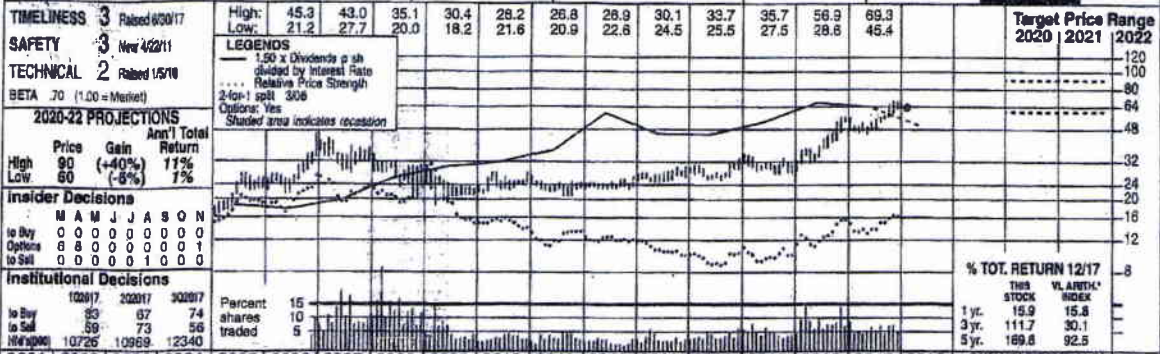
This issue is still a subpar selection for relative year-ahead price performance (Timeliness: 4). What's more, total return potential over the pull to 2020-2022 is nothing to write home about. Thus, we think investors can find better options elsewhere, at this juncture.

Nicholas P. Patrikis January 12, 2018

(A) Diluted earnings. Next earnings report due early February. (B) Dividends historically paid in mid-Feb., May, Aug., and November. Div'd reinvestment plan available. (C) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	70
Price Growth Persistence	40
Earnings Predictability	80

SJW GROUP NYSE-SJW RECENT PRICE **63.47** P/E RATIO **23.6** (Trailing: 23.6 Median: 23.0) RELATIVE P/E RATIO **1.15** DPO YLD **1.4%** VALUE LINE **1791**



Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Price	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.10	17.95	18.10	17.95	18.10	17.95
Gain	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	4.60	4.90	4.90	4.90	4.90	4.90
Return	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.80	2.85	2.85	2.85	2.85	2.85
Div'd	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	.93	.93	.93	.93	.93
Cap'l Spndg	2.83	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	6.00	5.50	5.50	5.50	5.50	5.50
Book Value	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	21.65	22.05	22.05	22.05	22.05	22.05
Relative P/E	18.5	17.3	15.4	19.5	18.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	20.7	20.7	20.7	20.7	20.7	20.7
Relative P/E Ratio	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	5.9	.84	.83	1.01	1.01	1.01	1.01	1.01	1.01
Avg Ann'l Div'd Yield	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.5%	3.0%	2.7%	2.5%	2.5%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%

Category	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues per sh	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.10	17.95	18.10	17.95	18.10	17.95
"Cash Flow" per sh	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	4.60	4.90	4.90	4.90	4.90	4.90
Earnings per sh	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.80	2.85	2.85	2.85	2.85	2.85
Div'd per sh	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	.93	.93	.93	.93	.93
Cap'l Spndg per sh	2.83	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	6.00	5.50	5.50	5.50	5.50	5.50
Book Value per sh	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	21.65	22.05	22.05	22.05	22.05	22.05
Common Sns Outst'g	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	21.00	22.00	22.00	22.00	22.00	22.00
Avg Ann'l P/E Ratio	18.5	17.3	15.4	19.5	18.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	20.7	20.7	20.7	20.7	20.7	20.7
Relative P/E Ratio	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	5.9	.84	.83	1.01	1.01	1.01	1.01	1.01	1.01
Avg Ann'l Div'd Yield	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.5%	3.0%	2.7%	2.5%	2.5%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%

CAPITAL STRUCTURE as of 9/30/17
 Total Debt \$431.0 mil. Due in 5 Yrs \$14.3 mil.
 LT Debt \$431.0 mil. LT Interest \$20.0 mil. (49% of Cap'l)
 Leases, Uncapitalized: Annual rentals \$6.8 mil.
 Pension Assets-12/18 \$113.9 mil. Oblig. \$174.1 mil.
 Pfd Stock None.
 Common Stock 20,520,856 shs.
 MARKET CAP: \$1.3 billion (Mid Cap)

Category	2015	2016	9/30/17
Cash Assets	5.2	25.3	7.8
Accts Receivable	18.4	18.4	63.0
Other	51.8	57.9	16.5
Current Assets	73.4	99.8	87.1
Accts Payable	16.2	18.7	30.7
Debt Due	39.1	14.3	-
Other	25.3	30.6	59.7
Current Liab.	79.6	63.6	90.4

ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22
 Revenues 5.0% 5.6% 5.0%
 "Cash Flow" 7.0% 12.0% 4.5%
 Earnings 8.0% 20.5% 7.0%
 Dividends 4.0% 3.0% 7.0%
 Book Value 3.6% 8.5% 4.5%

Quarter	2014	2015	2016	2017	2018
Q1	54.5	70.4	125.4	69.3	319.7
Q2	82.1	73.4	83.0	87.5	305.1
Q3	61.1	86.9	112.3	79.4	339.7
Q4	89.0	102.1	124.6	84.3	380
2018	78.0	109	129	90.0	385

QUARTERLY REVENUES (\$ mil.)
EARNINGS PER SHARE
QUARTERLY DIVIDENDS PAID

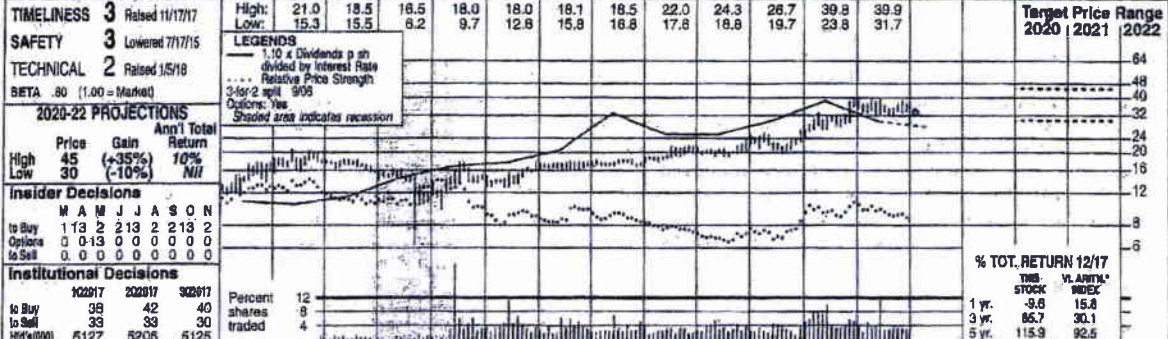
Business: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 229,000 connections with a total population of roughly one million people in the San Jose area and 13,000 connections that reaches about 39,000 residents in the region between San Antonio and Austin, Texas. The company also offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 400 employees. Officers and directors (including Nancy O. Moss) own 28.9% of outstanding shares (9/17 proxy). Chairman & C.E.O.: Richard Roth, Inc.: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group has finalized the sale of its wholly-owned subsidiary, Texas Water Alliance Limited. Early last year, SJW entered into an agreement with the Guadalupe-Blanco River Authority for total consideration of \$91 million. SJW netted cash proceeds of \$23.5 million, excluding a \$9 million holdback fee (due 2021). As a result of the completed sale and subsequent proceeds, the board of directors paid a special dividend of \$0.17 a share to stockholders on record as of November 29, 2017. Of note, this is in addition to its regular quarterly distribution. We are boosting our 2018 financial projections for several reasons. First, revenue growth is in the cards, driven by cumulative rate increases and higher customer water usage. Meantime, operating expenses have yet to abate (marginally higher in the third quarter), but we think production costs can subside somewhat next year, while administrative expenses can be held in check. Lastly, a lower effective tax rate stemming from the recent corporate tax overhaul is the primary factor underpinning our bottom-line ramp. All told, we now look for revenues of \$395 million (+\$25 million from last report's estimate) and earnings of \$2.85 a share (+\$0.25) this year. Investment spending is still the main theme rolling into next decade. Its spending budget, with approximately \$250 million to \$300 million in available funds, will be periodically tapped to support various projects, infrastructure upgrades, and general water system investments. Presently, management's focus is on the Montevina Water Treatment Plant project (retrofitting was expected to be completed by the end of 2017). This neutrally ranked equity has etched another high-water mark. Shares of the California-based utility pushed past \$65 per share for the first time in its history, before settling slightly below that level. Still, the stock logged an advance of about 10% over the past three months. While we are bullish on the company's business prospects over the pull to 2020-2022, SJW's rapid climb in share price gives us pause. In sum, we recommend investors wait for a better entry point before initiating a position here. *Nicholas P. Patrikis January 12, 2018*

(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.87; '04, \$2.78; '05, \$1.05; '06, \$18.36; '08, \$1.22; '10, \$0.46. GAAP accounting as of 2013. Next earnings report due late February. Quarterly earnings may not add due to rounding. (B) Dividends historically paid in early March, June, September, and December. (C) Div'd reinvestment plan available. (D) Paid special dividend of \$0.17 per share on 11/17. Company's Financial Strength 8- Stock's Price Stability 70 Price Growth Persistence 35 Earnings Predictability 45

YORK WATER NDC-YORW

RECENT PRICE **33.35** P/E RATIO **30.0** (Trailing: 34.4) RELATIVE P/E RATIO **1.46** DIV YLD **2.0%** VALUE LINE **1792**



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	20-22	
2.05	2.05	2.17	2.18	2.53	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	3.70	3.75	3.95	Revenues per sh	5.40
.59	.57	.65	.65	.79	.77	.86	.89	.95	1.07	1.09	1.12	1.19	1.36	1.45	1.42	1.65	1.75	"Cash Flow" per sh	2.25
.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	.92	1.05	1.15	Earnings per sh	1.50
.34	.35	.37	.39	.42	.45	.48	.48	.51	.52	.53	.54	.55	.57	.60	.63	.65	.70	Div'd Decl'd per sh	.96
.75	.86	1.07	2.50	1.89	1.85	1.89	2.17	1.18	.83	.74	.94	.76	1.10	1.11	1.03	1.35	1.25	Cap'l Spending per sh	.95
3.79	3.90	4.06	4.65	4.85	5.84	5.97	8.14	8.92	7.19	7.45	7.73	7.98	8.15	8.51	8.88	9.30	9.55	Book Value per sh	11.20
9.46	9.55	9.63	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.92	12.83	12.81	12.85	12.90	12.79	12.79	Common Shs Out/g	12.50
17.3	26.9	24.5	25.7	28.3	31.2	30.3	24.5	21.9	20.7	23.9	24.4	28.3	23.1	23.5	32.8	33.3	33.3	Avg Ann'l P/E Ratio	22.5
.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.18	1.72	1.62	1.62	Relative P/E Ratio	1.40
4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.8%	3.5%	3.1%	3.1%	2.8%	2.8%	2.8%	2.1%	1.9%	1.9%	Avg Ann'l Div'd Yield	2.6%

CAPITAL STRUCTURE as of 9/30/17		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	20-22	
Total Debt	\$88.9 mill.	31.4	32.8	37.0	39.0	40.6	41.4	42.4	45.9	47.1	47.6	48.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	67.5	
LT Debt	\$89.9 mill.	6.4	8.4	7.5	8.9	9.1	9.3	9.7	11.5	12.5	11.8	13.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	20.0	
(43% of Cap'l)		96.5%	96.1%	97.9%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	21.0%	
Pension Assets 1216 \$36.5 mill.		3.6%	10.1%	--	1.2%	1.1%	1.1%	8%	1.8%	1.6%	1.9%	2.0%	1.5%	AFUDC % to Net Profit	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	
Oblig. \$40.4 mill.		46.5%	54.5%	45.7%	48.3%	47.1%	48.0%	45.1%	44.8%	44.4%	42.6%	43.0%	43.0%	Long-Term Debt Ratio	43.5%	43.5%	43.5%	43.5%	43.5%	43.5%	
Pf'd Stock None		53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	54.9%	55.2%	55.6%	57.4%	57.0%	57.0%	Common Shs Out/g	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	
Common Stock 12,859,432 sha.		125.7	153.4	160.1	176.4	180.2	184.8	188.4	198.4	198.3	198.7	210	220	Total Capital (\$mill)	250	250	250	250	250	250	
MARKET CAP: \$425 million (Small Cap)		191.8	211.4	222.0	228.4	230.0	240.3	244.2	263.2	261.4	270.9	275	280	Net Plant (\$mill)	285	285	285	285	285	285	
CURRENT POSITION 2016 2016 9/30/17		6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	6.5%	7.4%	7.6%	7.2%	7.5%	8.0%	Return on Total Cap'l	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
(MILL.)		9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	10.4%	11.5%	12.0%	Return on Shr. Equity	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	
Cash Assets		1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	2.4%	3.9%	4.4%	3.4%	4.0%	4.5%	Retained to Com Eq	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	
Accounts Receivable		82%	85%	78%	72%	73%	74%	74%	64%	62%	67%	63%	61%	All Div'ds to Net Prof	60%	60%	60%	60%	60%	60%	
Inventory (Avg. Cost)																					
Other																					
Current Assets																					
Acc'ts Payable																					
Debt Due																					
Other																					
Current Liab.																					

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2016, the company's average daily availability was 35.4 million gallons and its service territory had an estimated population of 196,000. Has more than 67,000 customers. Residential customers accounted for 63% of 2016 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 105 full-time employees at 12/31/16. President/CEO: Jeffrey H. Hines. Officers/Directors own 1.1% of the common stock (3/17 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3801. Internet: www.yorkwater.com.

York Water delivered a better-than-expected bottom-line performance in the third quarter. The regulated water utility earned \$0.31 a share for the September period (+15% year over year), besting our \$0.29 call by two cents. The advance can be largely attributed to a lower effective tax rate (asset improvements qualify for deductions), higher surcharges to customers, and an increased allowance for funds used during construction (interest deduction). Meanwhile, operation and maintenance expenses as a percentage of revenues rose 200 basis points, on an annual basis, which makes the share-net showing even more encouraging. On the other hand, revenue growth was essentially nonexistent, dragged down by generally lower consumption.

We are adjusting our 2018 top- and bottom-line estimates. Despite an expanding customer base (acquisition-driven), York's top line is under some pressure. We now look for revenues of \$50.5 million in 2018, down from our prior forecast of \$52.0 million. Conversely, we are adding a dime to our earnings-per-share estimate, to \$1.15.

Capital expenditures ought to remain par for the course going forward. Management estimates it spent approximately \$25 million in 2017 on aging infrastructure, raw water pumping stations, and pipe replacements, more than double the year-earlier total. With plenty of its footprint still needing to be brought up to speed, we anticipate at least several years of aggressive investment spending.

York Water raised its quarterly dividend by 4%, to \$0.17 a share. This marks 21 consecutive years that the company has increased its annual dividend payout. The current yield is fractionally above that of the Value Line median, but should trend higher into next decade thanks to additional dividend hikes.

York Water shares have moved up one notch for Timeliness, to 3; and are now pegged to track the year-ahead broader market averages. Prospects out to the 2020-2022 time frame are bright, though most of the benefits we envision appear to already be baked into the stock price. Capital appreciation potential does not stand out at the recent quotation.

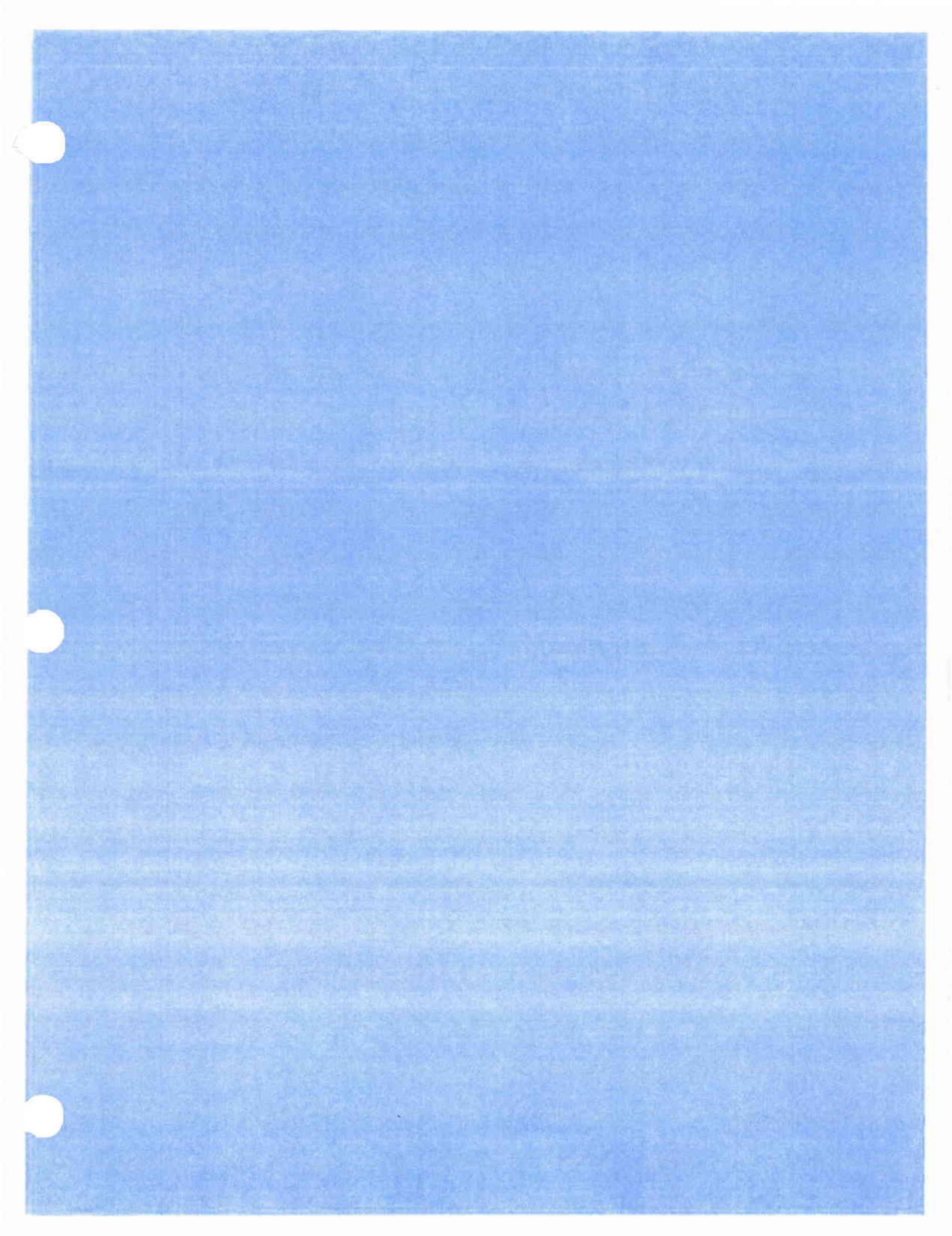
Nicholas P. Patrikis January 12, 2018

Cal-ender	QUARTERLY REVENUES (\$ mill.)	Full Year
2014	10.6 11.8 12.0 11.5	45.9
2015	11.2 11.9 12.4 11.6	47.1
2016	11.3 11.8 12.6 11.9	47.6
2017	11.3 12.3 12.7 12.2	48.6
2018	12.0 12.5 13.3 12.7	50.5

Cal-ender	EARNINGS PER SHARE	Full Year
2014	.16 .22 .23 .28	.89
2015	.20 .22 .28 .27	.97
2016	.19 .23 .27 .23	.92
2017	.20 .23 .31 .31	1.05
2018	.24 .25 .34 .32	1.15

Cal-ender	QUARTERLY DIVIDENDS PAID	Full Year
2014	.1431 .1431 .1431 .1431	.572
2015	.1495 .1495 .1495 .1555	.604
2016	.1555 .1555 .1555 .1802	.627
2017	.1602 .1602 .1602 .1868	.647
2018		

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	55
Earnings Predictability	90



Pennsylvania American Water Company
Exeter Township, Pennsylvania Wastewater Utility

Appraisal Work Papers
As of January 1, 2018

Asset Purchase Agreement
Exeter Township, Pennsylvania
And
Pennsylvania American Water Company

AUS Consultants
Suite 201
8555 West Forest Home Avenue
Greenfield, Wisconsin 53228
Office Telephone: 414-529-5755
J. Weinert's Cell: 414-698-8371
J. Weinert's E-Mail: weinertj@auswest.net
Pennsylvania American Water Company

The Asset Purchase Agreement is attached as **Appendix A-24-a** (CONFIDENTIAL)

**EXETER TOWNSHIP, BERKS COUNTY,
PENNSYLVANIA**

FINANCIAL REPORT

DECEMBER 31, 2011



REINSEL KUNTZ LESHER
certified public accountants & consultants

FOCUSED. ON YOU.

C O N T E N T S

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INDEPENDENT AUDITOR'S REPORT

**To the Board of Supervisors
Exeter Township
Berks County, Pennsylvania**

We have audited the accompanying basic financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of Exeter Township, Berks County, Pennsylvania, as of and for the year ended December 31, 2011, which collectively comprise the Township's basic financial statements as listed in the table of contents. These financial statements are the responsibility of Exeter Township's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

As discussed in Note 1, Exeter Township prepares its financial statements on the modified cash basis, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

The financial statements referred to above include only the primary government of Exeter Township, which consists of all funds, organizations, institutions, agencies, departments and offices that comprise the Township's legal entity. The financial statements do not include financial data for the Township's legally separate component units, which accounting principles generally accepted in the United States of America require to be reported with the financial data of the Township's primary government. As a result, the primary government financial statements do not purport to, and do not, present fairly the financial position - modified cash basis of the reporting entity of Exeter Township as of December 31, 2011, and the respective changes in financial position - modified cash basis thereof for the year then ended in conformity with the basis of accounting described in Note 1.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position - modified cash basis of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of the primary government of Exeter Township, Berks County, Pennsylvania, as of December 31, 2011, and the respective changes in financial position - modified cash basis thereof for the year then ended in conformity with the basis of accounting described in Note 1.

As discussed in Note 1, Exeter Township adopted Governmental Accounting Standards Board Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*, for the year ended December 31, 2011.

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and other required supplementary information on pages 3-13 and pages 54-60 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying financial information listed as supplementary information in the table of contents is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements, themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.



Wyomissing, Pennsylvania
July 5, 2012

EXETER TOWNSHIP

MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of Exeter Township's (the "Township") financial performance provides an overview of the Township's financial activities for the year ended December 31, 2011, within the limitations of the Township's modified cash basis of accounting. Please read it in conjunction with the Township's financial statements that begin on page 14.

Financial Highlights

- The Township's total expenditures exceeded total revenues on the modified cash basis of accounting by \$ 341,106 for the year ended December 31, 2011, compared to an excess of expenditures over revenues of \$ 4,670,342 for the year ended December 31, 2010. This resulted in a decrease of total net assets of 1.7% for the year ended December 31, 2011, compared to a decrease of 18.8% for the year ended December 31, 2010.
- At December 31, 2011, the Township's governmental funds reported combined ending fund balances of \$ 5,848,660; a decrease of \$ 39,880 from the prior year. The ending fund balance of \$ 2,041,272 or 34.9% is *available for spending* at the Township's discretion (*unassigned fund balance*). The General Fund highlights are as follows:
 - The Township's General Fund had an increase in its fund balance of \$ 305,164 to \$ 3,103,257. As part of managing the finances of the Township, a fund balance is maintained in order to provide adequate financial resources to pay for services to the citizens of the Township during periods when tax and other revenue collections are not sufficient to fund daily operating costs. This generally occurs in the first few months of each year. This enables the Township to avoid having to borrow money to cover operating expenses prior to the receipt of tax revenues, which are assessed March 1 of each year. At December 31, 2011, the unassigned fund balance of the General Fund was \$ 2,054,177 or 21.2% of total General Fund expenditures.
- At December 31, 2011, the Township's business-type activities reported net assets of \$ 13,964,046, a decrease of \$ 301,226 from the prior year.

USING THIS ANNUAL REPORT

This annual report is presented in a format consistent with the presentation requirements of the Governmental Accounting Standards Board (GASB) Statement No. 34, as applicable to the Township's modified cash basis of accounting.

Report Components

This annual report consists of five parts as follows:

Government-Wide Financial Statements: The statement of net assets - modified cash basis and the statement of activities - modified cash basis (on pages 14 and 15) provide information about the activities of the Township government-wide (or "as a whole") and present a longer-term view of the Township's finances. The statement of activities reports revenues and expenditures utilizing the modified cash basis of accounting as described in Note 1 to the financial statements.

Fund Financial Statements: Fund financial statements (starting on page 16) focus on the individual parts of the Township's government. Fund financial statements also report the Township's operations in more detail than the government-wide statements by providing information about the Township's most significant ("major") funds. For governmental funds, these statements tell how these services were financed in the short-term as well as what remains for future spending. For the proprietary funds, these statements offer information about the funds the Township operates like a business, such as the sewer system and the country club.

Notes to the Financial Statements: The notes to the financial statements are an integral part of the government-wide and fund financial statements and provide expanded explanation and detail regarding the information reported in the statements.

Required Supplementary Information: The management's discussion and analysis (pages 3 through 13), the schedules of funding progress (page 54) and the budgetary comparison schedules (pages 55 through 58) represent financial information required by GASB to be presented. Such information provides users of this report with additional data that supplements the government-wide statements, fund financial statements and notes (referred to as "the basic financial statements").

Other Supplementary Information: This part of the annual report (on pages 59 and 60) includes optional financial information such as combining statements for nonmajor funds (which are added together and shown in the fund financial statements in a single column). This other supplemental financial information is provided to address certain specific needs of various users of the Township's annual report.

Basis of Accounting

The Township has elected to present its financial statements on the modified cash basis of accounting. The modified cash basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America. The term "basis of accounting" is a reference to when financial events are recorded. Under the modified cash basis of accounting, only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned and expenditures are generally recognized when paid rather than when the related liability is incurred.

As a result of the use of the modified cash basis of accounting, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation are not recorded in these financial statements. Therefore, when reviewing the financial information and discussion within this annual report, the reader should keep in mind the limitations resulting from the use of the modified cash basis of accounting.

Reporting the Township as a Whole

The Township's Reporting Entity Presentation

This annual report includes only the primary government of the Township, which consists of all funds, organizations, institutions, agencies, departments, and offices that comprise the Township's legal entity. Accounting principles generally accepted in the United States of America require that the reporting entity include the primary government, organizations for which the primary government is financially accountable and other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define the reporting entity, we have considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the significance of their operational or financial relationships with the Township. The following component units meet the requirements for inclusion, under the above criteria, but are not included in the Township's annual report: Exeter Township, Berks County, Authority and Exeter Community Library.

Certain prior year data has been reclassified to be consistent with the current year's presentation.

The Government-Wide Statement of Net Assets and the Statement of Activities

The government-wide financial statements are presented on pages 14 and 15. One of the most important questions asked about the Township's finances is, "Is the Township as a whole better off or worse as a result of the year's activities?" The statement of net assets - modified cash basis and the statement of activities - modified cash basis report information about the Township as a whole and about its activities in a way that helps answer this question. These statements include only the Township's assets and the related liabilities referred to above resulting from the use of the modified cash basis of accounting.

These two statements report the Township's net assets and changes in them. Over time, increases or decreases in the Township's net assets are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors to assess the overall health of the Township, i.e., changes in the Township's tax base, the condition of the Township's roads, etc. In addition, the limitations of the modified cash basis of the accounting should be considered when analyzing the overall financial health of the Township.

In the Statement of Net Assets and the Statement of Activities, we divide the Township into two kinds of activities:

Governmental activities: Most of the Township's basic services are reported here, including general government services, public safety, public works, and culture and recreation. Charges for services finance a portion of the costs to provide these services. Costs not recovered through charges are financed from grants, contributions and general revenues of the Township, including real estate taxes and income taxes.

Business-type activities: The Township charges a fee to customers to help it cover all or most of the cost of certain services it provides. The Township's sewer system and country club are reported here.

Reporting the Township's Most Significant Funds

The Fund Financial Statements

The fund financial statements begin on page 16 and provide detailed information about the most significant funds – not the Township as a whole. Some funds are required to be established by state law or by bond covenants. However, the Township establishes certain other funds to help it control and manage money for particular purposes or to show that it is meeting legal responsibilities for using certain taxes, grants and other money. The Township's two kinds of funds – governmental and proprietary – under the modified cash basis of accounting use the same accounting approaches.

Governmental funds – Most of the Township's basic services are reported in governmental funds, which focus on how money flows into and out of those funds and the balances remaining at year-end that are available for spending. These funds report the acquisition of capital assets and payments for debt principal as cash disbursements and not as changes to asset and debt balances. The governmental fund statements provide a detailed short-term view of the Township's general government operations and the basic services it provides. Governmental fund information helps you determine (through a review of changes to fund balance) whether there are more or fewer financial resources that can be spent in the near future to finance the Township's programs.

Proprietary funds – When the Township charges customers for the services it provides, these services are generally reported in proprietary funds. Proprietary funds are reported in the same way that all activities are reported in the statement of net assets and the statement of activities.

Fiduciary funds – Fiduciary funds are often used to account for assets that are held in a trustee or fiduciary capacity, such as pension plan assets, assets held per trust agreements, and similar arrangements.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE

Net Assets – Modified Cash Basis

The Township's Primary Government net assets, resulting from modified cash basis transactions, decreased by \$ 341,106 or 1.7%, from fiscal year 2010 to 2011. Combined net assets were \$ 19,812,706 and \$ 20,153,812 at December 31, 2011 and 2010, respectively. Looking at the net assets of governmental and business-type activities separately, governmental activities had a decrease of \$ 39,880 while business-type activities had a decrease of \$ 301,226.

A condensed summary of the Township's Statement of Net Assets at December 31, 2011 and 2010 is presented below:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2011	2010	2011	2010	2011	2010
Assets:						
Total Assets (Non-Capital)	<u>\$ 5,886,061</u>	<u>\$ 5,979,490</u>	<u>\$ 13,964,046</u>	<u>\$ 14,265,272</u>	<u>\$ 19,850,107</u>	<u>\$ 20,244,762</u>
Liabilities:						
Deposits held in escrow	<u>\$ 37,401</u>	<u>\$ 90,950</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 37,401</u>	<u>\$ 90,950</u>
Net Assets:						
Unrestricted	<u>4,173,533</u>	<u>3,735,309</u>	<u>10,438,751</u>	<u>9,843,852</u>	<u>14,612,284</u>	<u>13,579,161</u>
Restricted	<u>1,675,127</u>	<u>2,153,231</u>	<u>3,525,295</u>	<u>4,421,420</u>	<u>5,200,422</u>	<u>6,574,651</u>
Total Net Assets	<u>\$ 5,848,660</u>	<u>\$ 5,888,540</u>	<u>\$ 13,964,046</u>	<u>\$ 14,265,272</u>	<u>\$ 19,812,706</u>	<u>\$ 20,153,812</u>

Net assets are shown as restricted if they can only be used for a specific purpose. At December 31, 2011 and 2010, net assets of \$ 5,200,422 and \$ 6,574,651, respectively, are restricted, and the remaining net assets are unrestricted at the end of the year.

Changes in Net Assets – Modified Cash Basis

For the year ended December 31, 2011 and 2010, net assets of the Township (resulting from modified cash basis transactions) changed as follows:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2011	2010	2011	2010	2011	2010
Program revenues:						
Charges for services	\$ 1,713,252	\$ 2,083,580	\$ 8,508,040	\$ 7,702,402	\$ 10,221,292	\$ 9,785,982
Operating grants and contributions	2,152,001	1,632,497	-	1,000,000	2,152,001	2,632,497
General revenues:						
Real estate taxes	3,721,056	3,357,384	-	-	3,721,056	3,357,384
Per capita taxes	71,996	70,546	-	-	71,996	70,546
Real estate transfer taxes	298,519	507,924	-	-	298,519	507,924
Earned income taxes	3,266,915	3,168,652	-	-	3,266,915	3,168,652
Local services tax	311,700	299,465	-	-	311,700	299,465
Business privilege tax	408,517	462,851	-	-	408,517	462,851
Interest and rents	147,219	163,072	460,120	498,308	607,339	661,380
Sale of assets	2,291	6,370	-	-	2,291	6,370
Other income	323,445	352,298	-	1,079	323,445	353,377
Total revenues	\$ 12,416,911	\$ 12,104,839	\$ 8,968,160	\$ 9,201,789	\$ 21,385,071	\$ 21,306,428
Expenditures:						
General government	\$ 709,651	\$ 781,505	\$ -	\$ -	\$ 709,651	\$ 781,505
Public safety	5,828,022	5,756,643	-	-	5,828,022	5,756,643
Health and human services	38,797	34,950	-	-	38,797	34,950
Public works - sanitation	298,967	422,261	-	-	298,967	422,261
Public works - highways and streets	2,049,861	1,806,623	-	-	2,049,861	1,806,623
Culture and recreation	671,817	777,714	-	-	671,817	777,714
Community development	55,121	71,911	-	-	55,121	71,911
Debt service	1,336,720	1,214,202	-	-	1,336,720	1,214,202
Benefits	106,889	94,102	-	-	106,889	94,102
Property and casualty insurance	148,680	147,672	-	-	148,680	147,672
Capital outlay	1,161,284	1,532,376	-	-	1,161,284	1,532,376
Miscellaneous	290,962	179,863	-	-	290,962	179,863
Sewer	-	-	6,371,894	10,613,865	6,371,894	10,613,865
Country club	-	-	2,657,492	2,543,083	2,657,492	2,543,083
Total expenditures	\$ 12,696,791	\$ 12,819,822	\$ 9,029,386	\$ 13,156,948	\$ 21,726,177	\$ 25,976,770
Deficiency of revenues under expenditures	\$ (279,880)	\$ (715,183)	\$ (61,228)	\$ (3,955,159)	\$ (341,106)	\$ (4,670,342)
Transfers:						
Transfers	\$ 240,000	\$ 298,677	\$ (240,000)	\$ (298,677)	\$ -	\$ -
Decrease in net assets	\$ (39,880)	\$ (416,506)	\$ (301,226)	\$ (4,253,836)	\$ (341,106)	\$ (4,670,342)
Net assets, beginning of year	5,888,540	6,305,046	14,265,272	18,519,108	20,153,812	24,824,154
Net assets, end of year	\$ 5,848,660	\$ 5,888,540	\$ 13,964,046	\$ 14,265,272	\$ 19,812,706	\$ 20,153,812

Governmental Activities

To aid in the understanding of the statement of activities, some additional explanation is given. Of particular interest is the format that is significantly different from a typical statement of revenues, expenditures and changes in fund balance. You will notice that expenditures are listed in the first column, with revenues from that particular program reported to the right. The result is a net revenue or expenditure. This type of format highlights the relative financial burden of each of the functions on the Township's taxpayers. It also identifies how much each function draws from the general revenues or if it is self-financing through fees and grants or contributions. All other governmental revenues are reported as general. It is important to note that all taxes are classified as general revenues, even if restricted for a specific purpose.

For the years ended December 31, 2011 and 2010, total revenues for governmental activities, resulting from modified cash basis transactions, amounted to \$ 12,416,911 and \$ 12,104,639 respectively.

For the year ended December 31, 2011, total disbursements for governmental activities, resulting from modified cash basis transactions, amounted to \$ 12,696,791. Of these total disbursements, taxpayers and other general revenues funded \$ 8,551,658 while those directly benefiting from the program funded \$ 2,152,001 from operating grants and contributions and \$ 1,713,252 from charges for services.

Some noteworthy events occurred in 2011 that are highlighted as follows:

- The Township real estate tax for 2011 was 1.64 mills for general purposes, .505 mills for the purchase of fire apparatus and making appropriations to fire companies, and .55 mills for the purpose of debt service related to the acquisition of the Reading Country Club.
- Real estate transfer taxes decreased \$ 209,405 to \$ 298,519. This decrease was due to the sale of the Exeter Commons shopping center in 2010. Had this sale not occurred, the Township would have experienced an increase of approximately \$ 50,595.
- Earned income taxes increased \$ 98,263 or 3% from 2010.
- Operating grants and contributions increased \$ 519,504 from 2010. A majority of the increase was due to the \$ 242,370 increase in state aid for the municipal pensions and the \$ 118,535 increase in the state aid passed through to the Exeter Volunteer Fire Relief Association.

Business-Type Activities

In reviewing the business-type activities net revenues/expenditures resulting from modified cash basis transactions, there are certain activities that need to be examined more closely. The business-type activities reported a net loss before transfers of \$ 61,226, transfers to other funds totaled \$ 240,000, resulting in a decrease in net assets of \$ 301,226. The \$ 295,690 net loss before transfers in the Sewer Fund was attributable to the use of 2009 unspent bond proceeds to pay for the 2011 capital expenditures. The Country Club reported net income before transfers of \$ 234,464 which is used to offset the debt service incurred to purchase the property.

A FINANCIAL ANALYSIS OF THE TOWNSHIP'S FUNDS

In reviewing individual funds of the Township, certain funds experienced significant changes to be considered in analyzing the Township's funds:

- Golf Acquisition Fund – During 2011, \$ 124,343 was expended for capital improvements to the Country Club including \$ 43,205 for golf course equipment, \$ 9,334 for improvements to the entrance and outdoor lighting, and \$ 71,804 for the outdoor patio, interior carpet and chairs and point of sale computer system.
- Capital Improvement Fund – During 2011, \$ 195,978 was expended for the LED street light retrofit project, offset by the receipt of \$ 32,708 in rebates. \$ 144,192 was expended for the Butter Lane Box Culvert. \$ 46,768 was expended for the traffic signal pre-emption public safety project.
- Capital Expenditure Fund – During 2011, \$ 28,160 was expended toward the replacement of computer equipment in the police department.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The acquisition of capital assets by the Township is reported as expenditures in the year of acquisition in the fund acquiring the related assets.

Long-Term Debt

Proceeds from the acquisition of long-term debt are reported as revenues in the respective fund acquiring the debt in the year the proceeds are received. Correspondingly, debt service payments are reported as expenditures in the year payment is made by the fund making the related debt service payments.

As of December 31, 2011, the Township had \$ 21,854,231 and \$ 29,050,000 of general obligation debt outstanding in the Governmental and Business-Type Activities, respectively. See Note 7 to the financial statements for a detailed analysis of long-term debt. The following details activity related to the general obligation debt during 2011:

	Governmental Activities	Business-Type Activities
Beginning Balance at January 1, 2011	\$ 22,423,418	\$ 30,315,000
Additions	-	-
Principal Payments	(569,187)	(1,265,000)
Ending Balance at December 31, 2011	<u>\$ 21,854,231</u>	<u>\$ 29,050,000</u>

Budgetary Highlights

Over the course of the year, the Township's Board of Supervisors monitored actual results with budgeted results. Although actual results and budgeted results may differ due to circumstances that arise during the course of the year, the Township generally does not amend its budget after adoption.

For the year ended December 31, 2011, General Fund expenditures were \$ 185,117 above final appropriations, while actual revenues available for appropriation were \$ 871,482 above the budgeted amount.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

Several events have occurred in 2011 that will have a positive benefit on Exeter Township. Rite Aid's construction of its new store at the corner of Route 422 and 47th Street is near completion and plans to open in 2012. The Diamond Federal Credit Union opened its doors for business in 2012. The Pottstown Medical Center opened the Priority Care Medical Center and the Coventry Pediatric Center bringing more access to medical services in the Township. The two Bottom Dollar stores that opened in 2010 are continuing to actively conduct business in the Township. The Township received two grants in 2011. A cash, non-matching grant in the amount of \$83,897 was received from the PA Department of Environmental Protection (DEP) for its recycling program; and a Tree Revitalization matching grant from the Department of PA, Department of Conservation and Natural Resources (DCNR) in the amount of \$17,800 for planting 100 trees in areas within the Township. Matching funds came from developers that were required to either replace the trees removed for development or to provide cash to replace trees anywhere in the Township. Also, in order to spur more commercial economic development to broaden the Township's commercial tax base, a nine-member Economic Development Advisory Council (EDAC) was formed. So far, EDAC has published an advertising-supported, 600- listing Business Directory to encourage those living in the Township and those living in communities bordering the Township to shop at Exeter businesses. The Business Directory has also been placed on the Township website at www.exetertownship.com for more exposure. EDAC has become a member of the Greater Berks County Economic Development group in order to expand its efforts, and holds quarterly business breakfasts for Exeter business leaders. The Township's general tax millage for 2012 remained unchanged at 1.64 mills. Due to the overall economic climate, many revenue sources are expected to remain stagnant or decline through 2012; however, the Township is fortunate to have a healthy General Fund balance to bridge any unexpected shortfalls. In addition, the Debt Service millage remained unchanged at .55 mills. The Fire Tax millage remained unchanged at .505 mills. The Street Light Tax and the Fire Hydrant Tax also remained unchanged.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES (CONTINUED)

The Township's current retail and service industry employment base is strong with several large employers already adding to the local economy. Some of the largest employers within the Township are as follows:

Employer	Number of Employees
Boscov's	973
Godiva Chocolatier	600
Giant Food	332
Wal-Mart	286
Angio Tech Surgical Specialties	285
Genesis Eldercare, Berkshire Center	164
Golden Living Center	125
Target	122
Home Depot	120
Lowe's	119
Redner's	96

During 2012, the Township has budgeted to undertake or complete several major infrastructure and capital projects to add to the overall quality of life in the Township. These projects and the estimated costs include the following:

• Construction of Farming Ridge Park	\$ 160,000
• Traffic signal pre-emption public safety project	141,250
• Sewer line replacement and engineering	1,803,700

All of these factors were considered in preparing the Township's budget for the 2012 fiscal year. As a result, General Fund revenues are anticipated to decrease 1.2 percent to \$ 9,129,942, while expenditures are budgeted to decrease 4.2 percent to \$ 9,093,897. Other governmental fund revenues for 2012 are budgeted at \$ 2,739,052, while expenditures are budgeted for \$ 6,298,388. The excess of budgeted expenditures over revenues will be covered by the fund balances at December 31, 2011. Proprietary Fund revenues are budgeted at \$ 7,366,181, while expenditures are budgeted for \$ 7,362,687.

CONTACTING THE TOWNSHIP'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, customers and creditors with a general overview of the Township's finances and to demonstrate the Township's accountability for the monies it receives. If you have questions about this report or need additional financial information, contact Exeter Township, 4975 DeMoss Road, Reading, PA 19606.

EXETER TOWNSHIP

**STATEMENT OF NET ASSETS - MODIFIED CASH BASIS
December 31, 2011**

ASSETS	----- Primary Government -----		Total
	Governmental Activities	Business-Type Activities	
Cash:			
Unrestricted	\$ 3,800,465	\$ 3,438,751	\$ 7,239,216
Restricted	2,085,596	3,525,295	5,610,891
Investments	-	7,000,000	7,000,000
	<u> </u>	<u> </u>	<u> </u>
Total assets	\$ 5,886,061	\$ 13,964,046	\$ 19,850,107
	<u> </u>	<u> </u>	<u> </u>
LIABILITIES AND NET ASSETS			
LIABILITIES, deposits held in escrow	\$ 37,401	\$ -	\$ 37,401
	<u> </u>	<u> </u>	<u> </u>
Total liabilities	37,401	-	37,401
	<u> </u>	<u> </u>	<u> </u>
COMMITMENTS AND CONTINGENCIES			
	<u> </u>	<u> </u>	<u> </u>
NET ASSETS			
Unrestricted	4,173,533	10,438,751	14,612,284
Restricted	1,675,127	3,525,295	5,200,422
	<u> </u>	<u> </u>	<u> </u>
Total net assets	\$ 5,848,660	\$ 13,964,046	\$ 19,812,706
	<u> </u>	<u> </u>	<u> </u>

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF ACTIVITIES - MODIFIED CASH BASIS
Year Ended December 31, 2011**

		----- Program Revenues -----	
	Expenditures	Charges for Services	Operating Grants and Contributions
Functions/Programs:			
Government:			
Governmental activities:			
General government	\$ 709,651	\$ 487,035	\$ 394,468
Public safety	5,828,022	347,854	777,928
Health and human services	38,797	-	1,459
Public works - sanitation	298,987	711,617	-
Public works - highways and streets	2,049,861	5,926	90,838
Culture and recreation	671,817	160,820	33,800
Community development	55,121	-	-
Debt service	1,336,720	-	11,855
Benefits	106,889	-	-
Property and casualty insurance	148,680	-	-
Capital outlay	1,161,284	-	552,526
Miscellaneous	290,962	-	289,127
	<hr/>	<hr/>	<hr/>
Total governmental activities	12,696,791	1,713,252	2,152,001
	<hr/>	<hr/>	<hr/>
Business-type activities:			
Sewer	6,371,894	5,623,090	-
Country Club	2,657,492	2,884,950	-
	<hr/>	<hr/>	<hr/>
Total business type activities	9,029,386	8,508,040	-
	<hr/>	<hr/>	<hr/>
Total government	\$ 21,726,177	\$ 10,221,292	\$ 2,152,001
	<hr/>	<hr/>	<hr/>
General revenues:			
Taxes:			
Real estate			
Real estate transfer			
Per capita			
Earned income			
Local services			
Business privilege			
Interest and rents			
Sale of assets			
Miscellaneous			
Transfers			
		<hr/>	
		Total general revenues and transfers	
		Changes in net assets	
			Net assets, beginning of year
			Net assets, end of year

See Notes to Financial Statements.

Net (Expenditures) Revenue and ----- Changes in Net Assets -----		
Primary Government		
Governmental Activities	Business-Type Activities	Total
\$ 171,852	\$ -	\$ 171,852
(4,702,240)	-	(4,702,240)
(37,338)	-	(37,338)
412,630	-	412,630
(1,953,097)	-	(1,953,097)
(477,197)	-	(477,197)
(55,121)	-	(55,121)
(1,324,865)	-	(1,324,865)
(106,889)	-	(106,889)
(148,680)	-	(148,680)
(608,758)	-	(608,758)
(1,835)	-	(1,835)
<u>(8,831,538)</u>	<u>-</u>	<u>(8,831,538)</u>
-	(748,804)	(748,804)
-	<u>227,458</u>	<u>227,458</u>
-	(521,346)	(521,346)
<u>(8,831,538)</u>	<u>(521,346)</u>	<u>(9,352,884)</u>
3,721,056	-	3,721,056
298,519	-	298,519
71,996	-	71,996
3,266,915	-	3,266,915
311,700	-	311,700
408,517	-	408,517
147,219	460,120	607,339
2,291	-	2,291
323,445	-	323,445
240,000	(240,000)	-
<u>8,791,658</u>	<u>220,120</u>	<u>9,011,778</u>
(39,880)	(301,226)	(341,106)
<u>5,888,540</u>	<u>14,265,272</u>	<u>20,153,812</u>
<u>\$ 5,848,660</u>	<u>\$ 13,964,046</u>	<u>\$ 19,812,706</u>

EXETER TOWNSHIP

**STATEMENT OF ASSETS AND FUND BALANCES (DEFICIT) - MODIFIED CASH BASIS
GOVERNMENTAL FUNDS
December 31, 2011**

ASSETS	General Fund	Utility Fund
Cash:		
Unrestricted	\$ 3,015,146	\$ 2,095
Restricted	110,512	-
Due (to) from other funds	<u>15,000</u>	<u>(15,000)</u>
Total assets	<u>\$ 3,140,658</u>	<u>\$ (12,905)</u>
LIABILITIES AND FUND BALANCES		
LIABILITIES, deposits held in escrow	<u>\$ 37,401</u>	<u>\$ -</u>
Total liabilities	<u>37,401</u>	<u>-</u>
COMMITMENTS AND CONTINGENCIES	<u>-</u>	<u>-</u>
FUND BALANCES (DEFICIT)		
Restricted	73,812	-
Committed	975,268	-
Unassigned	<u>2,054,177</u>	<u>(12,905)</u>
Total fund balances (deficit)	<u>\$ 3,103,257</u>	<u>\$ (12,905)</u>

See Notes to Financial Statements.

Other Governmental Funds	Total Governmental Funds
\$ 783,224	\$ 3,800,465
1,975,084	2,085,596
-	-
<u>\$ 2,758,308</u>	<u>\$ 5,886,061</u>
<u>\$ -</u>	<u>\$ 37,401</u>
-	37,401
-	-
1,601,315	1,675,127
1,156,993	2,132,261
-	2,041,272
<u>\$ 2,758,308</u>	<u>\$ 5,848,660</u>

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS
GOVERNMENTAL FUNDS**

Year Ended December 31, 2011

	General Fund	Utility Fund
REVENUES		
Taxes:		
Real estate	\$ 2,182,538	\$ 203,050
Real estate transfer	298,519	-
Per capita	71,996	-
Earned income	3,266,915	-
Local services	311,700	-
Business privilege	408,517	-
Licenses and permits	409,710	-
Fines and forfeits	127,643	-
Interest and rents	71,556	637
Intergovernmental revenues	1,462,309	-
Charges for services	1,156,425	-
Miscellaneous	280,900	-
	<hr/>	<hr/>
Total revenues	10,048,728	203,687
	<hr/>	<hr/>
EXPENDITURES		
Current:		
General government	707,375	-
Public safety	5,236,047	89,968
Health and human services	38,797	-
Public works - sanitation	298,987	-
Public works - highways and streets	1,712,264	148,928
Culture and recreation	551,542	-
Community development	39,648	2,176
Debt service:		
Principal	267,992	-
Interest	114,784	-
Benefits	106,889	-
Property and casualty insurance	148,680	-
Capital outlay	163,597	-
Miscellaneous	290,639	-
	<hr/>	<hr/>
Total expenditures	9,677,241	241,072
	<hr/>	<hr/>

Other Governmental Funds	Total Governmental Funds
\$ 1,335,468	\$ 3,721,056
-	298,519
-	71,996
-	3,266,915
-	311,700
-	408,517
-	409,710
-	127,643
75,026	147,219
689,692	2,152,001
19,474	1,175,899
42,545	323,445
<hr/>	<hr/>
2,162,205	12,414,620

2,276	709,651
502,007	5,828,022
-	38,797
-	298,987
188,669	2,049,861
120,275	671,817
13,297	55,121
127,968	395,960
825,976	940,760
-	106,889
-	148,680
997,687	1,161,284
323	290,962
<hr/>	<hr/>
2,778,478	12,696,791

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS (CONTINUED)
GOVERNMENTAL FUNDS**

Year Ended December 31, 2011

	General Fund	Utility Fund
Excess (deficiency) of revenues over (under) expenditures	\$ 371,487	\$ (37,385)
OTHER FINANCING SOURCES (USES)		
Transfers in	1,455	-
Transfers out	(70,069)	-
Sale of assets	2,291	-
Total other financing sources (uses)	(66,323)	-
Net change in fund balances	305,164	(37,385)
Fund balances, beginning of year	2,798,093	24,480
Fund balances (deficit), end of year	\$ 3,103,257	\$ (12,905)

See Notes to Financial Statements.

Other Governmental Funds	Total Governmental Funds
<u>\$ (616,273)</u>	<u>\$ (282,171)</u>
440,069	441,524
(131,455)	(201,524)
<u>-</u>	<u>2,291</u>
<u>308,614</u>	<u>242,291</u>
(307,659)	(39,880)
<u>3,065,967</u>	<u>5,888,540</u>
<u><u>\$ 2,758,308</u></u>	<u><u>\$ 5,848,660</u></u>

EXETER TOWNSHIP

**STATEMENT OF NET ASSETS - MODIFIED CASH BASIS
PROPRIETARY FUNDS
December 31, 2011**

ASSETS	Sewer	Country Club	Total
Cash:			
Unrestricted	\$ 2,865,910	\$ 572,841	\$ 3,438,751
Restricted	3,525,295	-	3,525,295
Investments	<u>7,000,000</u>	<u>-</u>	<u>7,000,000</u>
Total assets	<u>\$ 13,391,205</u>	<u>\$ 572,841</u>	<u>\$ 13,964,046</u>
LIABILITIES AND NET ASSETS			
COMMITMENTS AND CONTINGENCIES	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
NET ASSETS			
Unrestricted	9,865,910	572,841	10,438,751
Restricted	<u>3,525,295</u>	<u>-</u>	<u>3,525,295</u>
Total net assets	<u>\$ 13,391,205</u>	<u>\$ 572,841</u>	<u>\$ 13,964,046</u>

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN NET ASSETS - MODIFIED CASH BASIS
PROPRIETARY FUNDS
Year Ended December 31, 2011**

	Sewer	Country Club	Total
OPERATING REVENUES			
Sewer charges	\$ 5,309,131	\$ -	\$ 5,309,131
Tapping fees	241,535	-	241,535
Charges for services	-	2,884,950	2,884,950
Miscellaneous	<u>72,424</u>	<u>-</u>	<u>72,424</u>
Total operating revenues	<u>5,623,090</u>	<u>2,884,950</u>	<u>\$ 8,508,040</u>
OPERATING EXPENDITURES			
Wastewater collection and treatment	2,731,974	-	2,731,974
Culture and recreation expenses	-	2,655,873	2,655,873
Capital outlay	<u>950,182</u>	<u>1,619</u>	<u>951,801</u>
Total operating expenditures	<u>3,682,156</u>	<u>2,657,492</u>	<u>6,339,648</u>
Operating income	<u>1,940,934</u>	<u>227,458</u>	<u>2,168,392</u>
NONOPERATING REVENUES (EXPENSES)			
Interest income	453,114	7,006	460,120
Fiscal agent fees	(250)	-	(250)
Debt service:			
Principal	(1,265,000)	-	(1,265,000)
Interest	<u>(1,424,488)</u>	<u>-</u>	<u>(1,424,488)</u>
Total nonoperating revenues (expenses)	<u>(2,236,624)</u>	<u>7,006</u>	<u>(2,229,618)</u>
Income (loss) before other financing sources (uses)	<u>(295,690)</u>	<u>234,464</u>	<u>(61,226)</u>
OTHER FINANCING SOURCES (USES)			
Transfers out	<u>-</u>	<u>(240,000)</u>	<u>(240,000)</u>
Total other financing sources (uses)	<u>-</u>	<u>(240,000)</u>	<u>(240,000)</u>
Change in net assets	<u>(295,690)</u>	<u>(5,536)</u>	<u>(301,226)</u>
Net assets, beginning of year	<u>13,686,895</u>	<u>578,377</u>	<u>14,265,272</u>
Net assets, end of year	<u>\$ 13,391,205</u>	<u>\$ 572,841</u>	<u>\$ 13,964,046</u>

See Notes to the Financial Statements.

EXETER TOWNSHIP
NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies

Nature of activity:

Exeter Township, Pennsylvania (the "Township"), founded in 1741, has an approximate population of 25,550, based on a 2010 census report, living within an area of 24.1 square miles. The Township is in the southeastern portion of the Commonwealth of Pennsylvania and is located in Berks County.

A summary of the Township's significant accounting policies follows:

These financial statements are presented on the modified cash basis of accounting. The modified cash basis of accounting differs from accounting principles generally accepted in the United States of America (GAAP). Accounting principles generally accepted in the United States of America include all relevant Governmental Accounting Standards Board (GASB) pronouncements. In the government-wide financial statements and the fund financial statements for the proprietary funds, Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989 have been applied, to the extent they are applicable to the modified cash basis of accounting, unless those pronouncements conflict with or contradict GASB pronouncements, in which case, GASB prevails.

A. THE FINANCIAL REPORTING ENTITY

The Township is a Pennsylvania Second Class Township which operates under a Board of Supervisors form of government. Accounting principles generally accepted in the United States of America require that the reporting entity include the government, organizations for which the government is financially accountable and other organizations for which the nature and significance of their relationship with the government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define the reporting entity, management has considered all potential component units. The component units, as determined under the above criteria and as discussed below, are not included in the Township's reporting entity as these financial statements include only the modified cash activities of the primary government.

Exeter Township, Berks County, Authority:

Exeter Township, Berks County, Authority (the "Authority") is governed by a five-member board appointed by the Township Board of Supervisors. Although it is legally separate from the Township, the Authority is a component unit and its primary purpose is to provide sewer utilities to the Township.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

A. THE FINANCIAL REPORTING ENTITY (CONTINUED)

Exeter Community Library:

The Exeter Community Library (the "Library") is governed by a nine-member self-appointed board. Although it is legally separate from the Township, the Library is a component unit and its primary purpose is to provide library services to the Township.

B. BASIS OF PRESENTATION

Government-wide financial statements:

The statement of net assets and the statement of activities display information about the reporting government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues. Business-type activities are financed in whole, or in part, by fees charged to external parties for goods or services.

Fund financial statements:

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures. Funds are organized into two major categories: governmental and proprietary. An emphasis is placed on major funds within the governmental and proprietary categories. A fund is considered major if it is the primary operating fund of the Township or meets the following criteria:

Total assets, liabilities, revenues or expenditures of that individual governmental or enterprise fund are at least 10% of the corresponding total for all funds of that category or types, and total assets, liabilities, revenues or expenditures of the individual governmental fund or enterprise fund are at least 5% of the corresponding total for all governmental and enterprise funds combined.

The Township may also report as a major fund any fund it believes to be of particular importance to the financial statement users.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

The funds of the financial reporting entity are described below:

Governmental funds:

Governmental funds are those through which most governmental functions of the Township are financed. The acquisition, use and balances of the Township's expendable financial resources and the related liabilities (except those accounted for in proprietary funds) are accounted for through governmental funds. The measurement focus is upon determination of changes in financial position rather than upon net income determination.

The following are the Township's governmental funds:

General Fund - is the primary operating fund of the Township and is always classified as a major fund. It is used to account for and report all financial resources not accounted for or reported in another fund.

Special Revenue Funds - are used to account for and report the proceeds of specific revenue sources that are restricted, committed or assigned to expenditures for specified purposes other than debt service or capital projects. The term "proceeds of specific revenue sources" establishes that one or more specific restricted, committed or assigned revenues should be the foundation for a special revenue fund. The reporting entity includes the following special revenue fund, which is reported as a major fund:

Utility Fund - is used to account for the assessment received from property owners benefiting from public street lighting and fire hydrant service and the expenditures incurred by the Township to provide these services.

The reporting entity includes the following special revenue funds, which are reported as nonmajor funds:

Fire Fund - is used to account for revenues generated from the .505 mill assessment received from Township residents for the purpose of providing support for the Township's volunteer fire department.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

Governmental funds (continued):

Detention Pond/Storm Water Fund - is used to account for monies received from developers for the acceptance of Deeds of Dedication for detention or retention ponds within the Township.

K-9 Fund - is used to account for contributions to be used specifically for the improvement and continuation of the police K-9 program.

Park Improvement Fund - is used to account for monies received from developers to be used in the acquisition, improvement and/or maintenance of public open space areas.

State Liquid Fuels Highway Aid Fund - is used to account for the proceeds from the State Motor License Fund. Under the Act of June 1, 1956, P.L. 1944, No. 145, this Fund must be kept separate from all other funds and no other funds shall be commingled with this Fund. Expenditures are legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations. County liquid fuels tax payments to the local government are not accounted for in this Fund.

Capital Project Funds - are used to account for and report financial resources that are restricted, committed or assigned expenditures for capital outlays, including the acquisition or construction of major capital improvements. Capital project funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations or other governments. The reporting entity includes the following capital project funds, which are reported as nonmajor funds:

Capital Expenditure Fund - is used to account for the financial resources to be used for the acquisition of assets.

Capital Improvement Fund - is used to account for the financial resources to be used primarily for storm sewer improvements.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

Governmental funds (continued):

Golf Acquisition Fund - is used to account for the financial resources to be used to acquire and make improvements to a municipal golf course and banquet facility within the Township.

Apparatus Fund - is used to account for the financial resources to assist the fire company in purchasing equipment.

Traffic Improvement Fund - is used to account for the collection of transportation impact assessments against new developments that adversely affect the transportation facilities within the Township.

Debt Service Fund - is used to account for and report financial resources that are restricted, committed or assigned to expenditures for principal and interest (debt service) resources. This Fund includes financial resources that are being accumulated for principal and interest maturing in future years, and also includes financial resources that are legally mandated to be accounted for and reported in a debt service fund.

Proprietary funds:

Enterprise Funds - are used to account for business-like activities provided to the general public. These activities are financed primarily by user charges, and the measurement of financial activity focuses on net income measurement similar to the private-sector. The reporting entity includes the following enterprise funds, which are reported as major funds:

Sewer Fund - is used to account for the operation of the sewer system, which is operated as a public utility.

Country Club Fund - is used to account for the operation of the Reading Country Club.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

C. BASIS OF ACCOUNTING AND MEASUREMENT FOCUS

Basis of accounting:

Basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the primary government financial statements.

Modified cash basis:

The Township's policy is to prepare its financial statements on the modified cash basis under which only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned, and expenditures are generally recognized when paid rather than when the related liability is incurred. Consequently, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation, which may be material in amount, are not reflected in the accompanying financial statements, which are not intended to present the financial position, results of operations or cash flows in conformity with accounting principles generally accepted in the United States of America.

If the Township utilized the basis of accounting recognized as generally accepted, the fund financial statements for governmental funds would use the modified accrual basis of accounting, while the fund financial statements for proprietary fund types would use the accrual basis of accounting. All government-wide financials would be presented on the accrual basis of accounting.

Measurement focus:

The accounting and reporting treatment applied to a fund is determined by its measurement focus. Governmental funds are accounted for on a spending or "financial flow" measurement focus. Governmental fund type operating statements present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets.

Proprietary funds and nonexpendable trust funds are accounted for on a cost of services or "capital maintenance" measurement focus. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in equity.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

D. ASSETS AND LIABILITY ACCOUNTING POLICY DISCLOSURES

Cash:

The Township considers all cash accounts that are not subject to withdrawal restrictions or penalties to be cash.

For the purpose of financial reporting, cash includes all demand and savings accounts and certificates of deposit or short-term investments with an original maturity of three months or less.

Investments:

The Board of Supervisors is authorized by statutes to invest its funds as defined in the Township Code. Authorized types of investments include the following:

1. U. S. Treasury Bills.
2. Short-term obligations of the U. S. Government or its agencies or instrumentalities.
3. Insured savings and checking accounts and certificates of deposit in banks, savings and loan associations and credit unions.
4. General obligation bonds of the federal government, the Commonwealth of Pennsylvania or any state agency, or of any Pennsylvania political subdivision.
5. Shares of mutual funds whose investments are restricted to the above categories.

Investments are carried at cost.

Due to and from other funds:

Interfund receivables and payables arise from interfund transactions and are recorded by all funds affected in the period in which transactions are executed.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

D. ASSETS AND LIABILITY ACCOUNTING POLICY DISCLOSURES (CONTINUED)

Capital assets:

Purchased capital assets are recorded as expenditures in the governmental fund types. Proprietary fund type capital assets are recorded as expenditures in the fund in which they are utilized. Infrastructure assets consisting of certain improvements other than buildings, including roads, bridges, curbs and gutters, streets and sidewalks, drainage systems and lighting systems, are recorded as expenditures in the fund types expending the funds.

Long-term debt:

Debt proceeds from issuance of long-term debt are reported as other financing sources, and the payment of principal and interest is reported as expenditures in the fund financial statements and government-wide statements. Debt service expenditures are recognized in the period paid.

Compensated absences:

Compensated absences for vacation and sick leave are recorded when paid.

E. EQUITY

Government-wide statements:

GASB Statement No. 34 requires the classification of net assets into the following three components:

Invested in capital assets, net of related debt - This component of net assets consists of the cost of capital assets, reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings that are attributable to the acquisition, construction or improvement of these assets.

Restricted - This component of net assets consists of constraints placed on net asset use either by (1) external groups such as creditors, grantors, contributors or laws and regulations of other governments, or (2) law through constitutional provisions or enabling legislation.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

E. EQUITY (CONTINUED)

Government-wide statements (continued):

Unrestricted - This component of net assets consists of net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt."

Fund financial statements:

The Township adopted GASB Statement No. 54 (GASB 54), *Fund Balance Reporting and Governmental Fund Type Definitions*, for the year ended December 31, 2011. GASB 54 establishes accounting and financial reporting standards for all governments that report governmental funds. It establishes criteria for classifying fund balances into specifically designed classifications and clarifies definitions as follows:

Nonspendable - This classification consists of amounts that cannot be spent because they are either not in spendable form or are legally required to be maintained intact.

Restricted - This classification consists of amounts that are restricted to specific purposes either by (1) external groups such as creditors, grantors, contributors or laws and regulations of other governments, or (2) law through constitutional provisions or enabling legislation. The restriction is binding unless removed with the consent of the resource provider.

Committed - This classification consists of amounts used for specific purposes imposed by formal action of the Township's highest level of decision-making authority. The commitment is binding unless removed in the same manner imposed. Formal action must occur prior to fiscal year-end; however, the amount may be determined subsequent to year-end.

Assigned - This classification consists of amounts constrained by the Township's intent to be used for specific purposes that are neither restricted nor committed.

Unassigned - This classification consists of amounts that have not been assigned to other funds and that have not been restricted, committed, or assigned to specific purposes within the General Fund. The General Fund should be the only fund that reports a positive unassigned fund balance.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

E. EQUITY (CONTINUED)

Fund financial statements (continued):

Fund balances of the Township's governmental funds at January 1, 2011 have been restated to reflect the above classifications as follows:

	Restricted	Committed	Unassigned	Total Fund Balance
General Fund	\$ 81,775	\$ 455,772	\$ 2,260,546	\$ 2,798,093
Utility Fund	-	24,480	-	24,480
Other governmental funds	<u>2,071,456</u>	<u>994,511</u>	<u>-</u>	<u>3,065,967</u>
	<u>\$ 2,153,231</u>	<u>\$ 1,474,763</u>	<u>\$ 2,260,546</u>	<u>\$ 5,888,540</u>

F. REVENUES AND EXPENDITURE POLICY DISCLOSURES

Program revenues:

All revenues are recognized when received.

In the statement of activities, revenues that are derived directly from each activity or from parties outside the Township's taxpayers are program revenues. Amounts reported as program revenues include (1) charges to customers or applicants for goods and services or privileges provided, (2) operating grants and contributions and (3) capital grants and contributions, including special assessments.

All other governmental revenues are reported as general. All taxes are classified as general revenue even if restricted for a specific purpose.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

F. REVENUES AND EXPENDITURE POLICY DISCLOSURES (CONTINUED)

Program revenues (continued):

Proprietary funds distinguish operating revenues and expenditures from nonoperating items. Operating revenues and expenditures generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the sewer fund are sewer usage charges. The Township also recognizes as operating revenues, the portion of tapping fees intended to recover the cost of connecting new customers to the system. Operating expenditures of the sewer and Country Club funds include the cost of the services. All revenues and expenditures not meeting this definition are reported as nonoperating revenues and expenditures. The principal nonoperating revenues of the Township's proprietary fund are interest income and transfers in and transfers out. The principal operating revenues of the Country Club Fund are charges for services at the Country Club.

Property taxes:

The Township is permitted by state law to levy taxes up to 14 mills of assessed valuation for general purposes. State law also permits additional millage to be levied for specific purposes as defined in the law. The millage rate levied by the Township for 2011 was 2.695 mills, consisting of 1.64 mills for general purposes, .505 mills for purchase of fire apparatus and .55 mills for debt service, as established by the Board of Supervisors. Current tax collections for the Township were approximately 97% of the total tax levy.

The Township's real estate taxes are based on assessed values established by the County's Board of Assessments. The taxes are collected by elected local tax collectors. Real estate taxes attach an enforceable lien on property when levied on March 1. A discount of 2% is applied to payments made prior to April 30. A penalty of 10% is added to the face amount of taxes paid after June 30. The County of Berks Tax Claim Bureau collects delinquent real estate taxes on behalf of itself and other taxing authorities. Return of unpaid real estate taxes to the County Tax Claim Bureau is made by January 15 of the subsequent year.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

F. REVENUES AND EXPENDITURE POLICY DISCLOSURES (CONTINUED)

Intergovernmental revenues:

Intergovernmental revenues represent revenues received from the Commonwealth of Pennsylvania, federal agencies and local governmental units, generally to fund specific programs and are recognized when received.

Expenditures/expenses:

Expenditures and expenses are recognized when paid.

G. INTERNAL AND INTERFUND BALANCES AND ACTIVITIES

Fund financial statements:

Interfund activity, if any, within and among the governmental and proprietary fund categories is reported as follows in the fund financial statements:

Interfund services:

Sales or purchases of goods and services between funds are reported as revenues and expenditures.

Interfund reimbursements:

Repayments from funds responsible for certain expenditures to the funds that initially paid for them are not reported as reimbursements, but as adjustments to expenditures in the respective funds.

Interfund transfers:

Flow of assets from one fund to another where repayment is not expected is reported as transfers in and out.

NOTES TO FINANCIAL STATEMENTS

Note 2. Excess of Expenditures over Appropriations in Individual Funds

No individual fund, which was budgeted as required by the Commonwealth of Pennsylvania, contained an excess of expenditures over appropriations that was not covered by the cash balance at December 31, 2010 and the cash received for the year ended December 31, 2011. Expenditures exceeded appropriations at the legal level of control in the following funds:

General Fund	\$ 185,117
Utility Fund	49,072

A nonbudgeted pass-through grant amount of \$ 339,442 was included in the expenditures of the General Fund. Both the grant revenue and expenditure were recorded in 2011, resulting in no net effect on fund balance. In the Utility Fund, cost savings from replacing street lights with LED lights were not realized until later in the year than was planned.

Note 3. Stewardship, Compliance and Accountability

Compliance with finance-related legal and contractual provisions:

The Township had no material violations of finance-related legal and contractual provisions.

Note 4. Deposits and Investments

The Township's available cash is invested in demand deposit accounts and a certificate of deposit. The carrying amount of cash and investments at December 31, 2011 consist of the following:

Demand deposits	\$ 12,847,905
Time deposit	7,000,000
Petty cash	<u>2,202</u>
	<u>\$ 19,850,107</u>

Reconciliation to statement of net assets/balance sheet:

Cash:	
Unrestricted	\$ 7,239,216
Restricted	<u>5,610,891</u>
	12,850,107
Investments, business-type activities	<u>7,000,000</u>
	<u>\$ 19,850,107</u>

NOTES TO FINANCIAL STATEMENTS

Note 4. Deposits and Investments (Continued)

Custodial credit risk - deposits:

Custodial credit risk is the risk that, in the event of a financial institution failure, the Township's deposits may not be returned. At December 31, 2011, the carrying amount of the Township's bank deposits was \$ 19,847,905 and the corresponding bank balances were \$ 20,123,556, of which \$ 500,000 was covered by Federal Depository Insurance. The remaining \$ 19,623,556 of deposits was exposed to custodial risk because it was uninsured and collateralized with securities held by the pledging financial institution's trust department or agent, but not in the Township's name.

Note 5. Restricted Assets

Cash and investments whose use is limited to a specific purpose have been classified as "restricted" in the financial statements. Restricted assets at December 31, 2011 consist of the following:

Governmental activities:

General Fund:

Police equipment	\$ 69,405
Fire police	1,378
Developer escrows	36,701
Police National Night Out committee	2,915
Berks County Emergency Response Team	113
K-9 Fund	3,677
Park Improvement Fund, grant funds	10,852
State Liquid Fuels Highway Aid Fund	174,437
Capital Improvement Fund	361,585
Golf Acquisition Fund	845,879
Traffic Improvement Fund	204,885
Debt Service Fund	<u>373,769</u>

Total governmental activities 2,085,596

Business-type activities:

Sewer Fund, unspent note proceeds, Series A of 2009	<u>3,525,295</u>
--------------------------------------------------------	------------------

Total business-type activities 3,525,295

\$ 5,610,891

NOTES TO FINANCIAL STATEMENTS

Note 6. Interfund Transfers and Balances

Transfers between funds for the year ended December 31, 2011 were as follows:

	Transfers In	Transfers Out
Governmental Funds:		
General Fund	\$ 1,455	\$ 70,069
Fire Fund	-	130,000
K-9 Fund	-	1,455
Capital Expenditure Fund	70,069	-
Apparatus Fund	130,000	-
Debt Service Fund	<u>240,000</u>	<u>-</u>
 Total Governmental Funds	 441,524	 201,524
Proprietary Fund, Country Club Fund	<u>-</u>	<u>240,000</u>
	<u>\$ 441,524</u>	<u>\$ 441,524</u>

The composition of interfund balances as of December 31, 2011 is as follows:

	Due To	Due From
General Fund	\$ -	\$ 15,000
Utility Fund	<u>15,000</u>	<u>-</u>
	<u>\$ 15,000</u>	<u>\$ 15,000</u>

Note 7. Long-Term Debt

At December 31, 2011, long-term debt consists of the following:

	Balance Outstanding December 31, 2010	Additions	Payments	Balance Outstanding December 31, 2011
Governmental activities:				
Pennsylvania Infrastructure Investment Authority Loan, initial issue of \$ 299,193, interest due monthly at 1.387%, principal payments due monthly through February 2026	\$ 237,224	\$ -	\$ 12,993	\$ 224,231

NOTES TO FINANCIAL STATEMENTS

Note 7. Long-Term Debt (Continued)

	Balance Outstanding December 31, 2010	Additions	Payments	Balance Outstanding December 31, 2011
Governmental activities (continued):				
General Obligation Notes, Series of 2007, in the initial amount of \$ 17,810,000, interest due semiannually at rates ranging from 4.200% to 4.700%, principal due annually through August 2046	\$ 17,700,000	\$ -	\$ 40,000	\$ 17,660,000
General Obligation Notes, Series 01 of 2008, in the initial amount of \$ 500,000, principal and interest due monthly at 3.730%, principal through July 2013. Of the total payment of \$ 261,194, \$ 173,226 was paid directly by the fire company	261,194	-	261,194	-
General Obligation Notes, Series A of 2009, in the initial amount of \$ 4,316,556, interest due semiannually at rates ranging from 1.000% to 4.100%, principal due annually through July 2024	<u>4,225,000</u>	<u>-</u>	<u>255,000</u>	<u>3,970,000</u>
Total governmental activities	<u>22,423,418</u>	<u>-</u>	<u>569,187</u>	<u>21,854,231</u>
Business-type activities:				
General Obligation Notes, Series of 2007, in the initial amount of \$ 21,380,000, interest due semiannually at rates ranging from 4.750% to 5.300%, principal due annually through July 2021	17,960,000	-	1,255,000	16,705,000

NOTES TO FINANCIAL STATEMENTS

Note 7. Long-Term Debt (Continued)

	Balance Outstanding December 31, 2010	Additions	Payments	Balance Outstanding December 31, 2011
Business-type activities (continued):				
General Obligation Notes, Series A of 2009, in the initial amount of \$ 12,358,444, interest due semiannually at rates ranging from 1.000% to 4.100%, principal due annually through July 2026	<u>\$ 12,355,000</u>	<u>\$ -</u>	<u>\$ 10,000</u>	<u>\$ 12,345,000</u>
Total business-type activities	<u>30,315,000</u>	<u>-</u>	<u>1,265,000</u>	<u>29,050,000</u>
Total debt	<u>\$ 52,738,418</u>	<u>\$ -</u>	<u>\$ 1,834,187</u>	<u>\$ 50,904,231</u>

Aggregate maturities required on long-term debt at December 31, 2011 are as follows:

Governmental activities:

	Principal	Interest	Total Debt Service
2012	\$ 318,105	\$ 948,894	\$ 1,266,999
2013	323,473	941,414	1,264,887
2014	333,852	933,822	1,267,674
2015	339,241	924,558	1,263,799
2016	344,641	915,846	1,260,487
2017-2021	1,924,611	4,406,056	6,330,667
2022-2026	2,295,308	4,019,108	6,314,416
2027-2031	2,750,000	3,485,862	6,235,862
2032-2036	3,450,000	2,790,915	6,240,915
2037-2041	4,330,000	1,908,040	6,238,040
2042-2046	<u>5,445,000</u>	<u>791,245</u>	<u>6,236,245</u>
	<u>\$ 21,854,231</u>	<u>\$ 22,065,760</u>	<u>\$ 43,919,991</u>

NOTES TO FINANCIAL STATEMENTS

Note 7. Long-Term Debt (Continued)

Business-type activities:

	Principal	Interest	Total Debt Service
2012	\$ 1,330,000	\$ 1,361,537	\$ 2,691,537
2013	1,405,000	1,294,830	2,699,830
2014	1,475,000	1,223,795	2,698,795
2015	1,550,000	1,148,341	2,698,341
2016	1,630,000	1,067,587	2,697,587
2017-2021	9,590,000	4,043,325	13,633,325
2022-2026	<u>12,070,000</u>	<u>1,517,540</u>	<u>13,587,540</u>
	<u>\$ 29,050,000</u>	<u>\$ 11,656,955</u>	<u>\$ 40,706,955</u>

Substantially all of the Township's assets are pledged as collateral to the long-term debt.

Derivative financial instrument:

In 2005, the Township entered into a forward interest rate basis swap agreement with a financial institution in conjunction with its General Obligation Notes, Series of 2005. The financial institution is a floating rate payer based upon 67% of USD-LIBOR-BBA plus 20 basis points. The Township is a floating rate payer based upon the BMA Municipal Bond Index as published by Municipal Market Data (or its successor). The interest rate basis swap was transferred to the Township's General Obligation Note, Series of 2007.

The swap is an investment derivative. The fair value (liability) as of December 31, 2011 was as follows:

Notional Amount	Effective Date	Maturity Date	January 1, 2011, Beginning	Increase (Decrease)	December 31, 2011, Ending
\$ 16,705,000	February 15, 2005	July 15, 2021	\$ (278,694)	\$ (164,150)	\$ (114,544)

Through the use of derivatives, the Township is exposed to a variety of risks, including credit risk and interest rate risk.

Credit risk:

As of December 31, 2011, the Township was not exposed to credit risk because the swap had a negative fair value; however, should interest rates change and the fair value of the swap become positive, the Township would be exposed to credit risk in the amount of the derivative's fair value. As of December 31, 2011, the counterparty was rated Aa2 by Moody's Investors service and AA- by Standard & Poor's.

NOTES TO FINANCIAL STATEMENTS

Note 7. Long-Term Debt (Continued)

Derivative financial instrument (continued):

Basis risk:

The Township is exposed to basis risk under the 2007 basis swap to the extent that SIFMA trades at a greater than expected percentage of LIBOR for an extended period of time and/or in a high interest rate environment.

Termination risk:

The swap was issued pursuant to the International Swap Dealers Association Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. The Township or the counterparty may terminate the swap if the other party fails to perform under the terms of the contract. If the swap is terminated, the Township will be responsible for the underlying variable rate bond obligation. Also, if at the time of termination the swap has a negative fair value, the Township would be liable to the counterparty for a payment equal to the swap's fair value.

Tax risk:

The Township is exposed to tax risk under the 2007 basis swap as the Township received a payment equal to 67% of LIBOR plus a Fixed Spread and makes a payment equal to 100% of SIFMA. As the relationship of SIFMA to LIBOR is based primarily on the benefit received by holders of tax-exempt debt, any change in the benefit of tax-exemption will result in a concurrent change of the benefit of the 2007 basis swap. Any decrease in marginal tax rates, or similar tax law changes, will negatively impact the cash flow benefit resulting from the 2007 basis swap. Alternatively, any increase in marginal tax rates will positively impact the cash flow benefit. There can be no assurances that marginal tax rates or the benefit of tax exemption on municipal bonds will not change during the life of the 2007 basis swap. In addition, as was discussed previously, tax risk and basis risk are increased as the level of interest rates rises, resulting in the possibility of larger negative (or positive) cash flows from the 2007 basis swap. Although no representation can be made in regards to future tax changes, the overall risk to the Township is reduced as the underlying Series 2007 Bonds amortize (and resulting amortization of the 2007 basis swap occurs) and is also mitigated as time elapses the present value cost of any negative tax changes is less in the future.

NOTES TO FINANCIAL STATEMENTS

Note 8. Fund Balance

Fund balances of the Township's governmental funds at December 31, 2011 consist of the following:

	Restricted	Committed	Unassigned	Total Fund Balance
Reported in:				
General Fund	<u>\$ 73,812</u>	<u>\$ 975,268</u>	<u>\$ 2,054,177</u>	<u>\$ 3,103,257</u>
Utility Fund	<u>-</u>	<u>-</u>	<u>(12,905)</u>	<u>(12,905)</u>
Other governmental funds:				
Fire protection	-	66,046	-	66,046
Detention pond/storm water maintenance	-	74,996	-	74,996
K-9 program	3,677	-	-	3,677
Parks	10,852	251,097	-	261,949
Public works, highways and streets	174,437	-	-	174,437
Debt service	-	373,769	-	373,769
Capital projects	<u>1,412,349</u>	<u>391,085</u>	<u>-</u>	<u>1,803,434</u>
	<u>1,601,315</u>	<u>1,156,993</u>	<u>-</u>	<u>2,758,308</u>
	<u>\$ 1,675,127</u>	<u>\$ 2,132,261</u>	<u>\$ 2,041,272</u>	<u>\$ 5,848,660</u>

Fund balance policy:

The Township established and will maintain reservations of fund balance in accordance with Governmental Accounting Standards Board Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*. This policy applies to the Township's General Fund and all governmental funds. Fund balance is composed of nonspendable, restricted, committed, assigned and unassigned amounts.

Fund balance information is used to identify the available resources to repay long-term debt, reduce property taxes, add new governmental programs, expand existing programs or enhance the financial position of the Township in accordance with policies established by the Board of Supervisors.

Spending policy:

The Township's policy is to first use restricted fund balance when expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available.

NOTES TO FINANCIAL STATEMENTS

Note 8. Fund Balance (Continued)

Spending policy (continued):

The Township's policy is to use unrestricted fund balance in the following order, committed, assigned and unassigned, when expenditure is incurred for purposes for which each of these fund balance classifications is available.

Minimum fund balance policy:

The Township has not formally adopted a minimum fund balance policy.

Committed fund balance:

The Board of Supervisors is the Township's highest level of decision-making authority. The Township has not formally adopted a policy as to the formal action that is required to be taken to establish, modify or rescind a fund balance commitment.

Assigned fund balance:

The Township has not formally adopted a policy regarding the body or official authorized to assign amounts to a specific purpose and the policy established by the governing body pursuant to which that authorization is given.

Reservations of fund balance:

Restricted - General Fund:

The Township's restricted fund balance in the General Fund consists of contributions from third parties and funds held which are restricted to be used on specific expenditures.

Restricted - Other governmental funds:

The Township hereby establishes the following restricted fund balance reserves in the other governmental funds:

K-9 Program Reserve - The Township's restricted fund balance in the K-9 Fund consists of contributions from third parties which are restricted for Exeter Police K-9 Unit expenses.

Park Improvement Reserve - The Township's restricted fund balance in the Park Improvement Fund consists of unspent grant funds which are restricted for park improvements.

NOTES TO FINANCIAL STATEMENTS

Note 8. Fund Balance (Continued)

Reservations of fund balance (continued):

Restricted - Other governmental funds (continued):

Highways and Streets Reserve - the Township's restricted fund balance in the State Highway Aid Fund consists of proceeds from the State Motor License Fund accounted for in the State Liquid Fuels Highway Aid Fund. Expenditure of these funds is legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations.

Capital Project Reserves - the Township's restricted fund balances in the Capital Improvement Fund and the Golf Acquisition Fund consist of unspent bond proceeds which are restricted for specific capital projects. The Township's restricted fund balance in the Traffic Improvement Fund consists of unspent grant funds and contributions from third parties restricted for expenditures for traffic improvements.

Committed - General Fund:

The Township's committed fund balance in the General Fund consists of an amount to be used for tree replacement as approved by the Board of Supervisors, a balance to be held for Rate Stabilization related to the Township's swap, as set forth by Township Ordinance and contract commitments.

Committed - Utility Fund:

The Township's committed fund balance in the Utility Fund, as set forth by Township ordinance, consists of funds to be used for public street lighting and fire hydrant services. Revenues are generated from assessments collected from Township residents. At December 31, 2011, this fund balance is a deficit; therefore, the amount is reported as unassigned fund balance.

Committed - Other governmental funds:

The Township hereby establishes the following committed fund balance reserves in the other governmental funds:

Fire Protection Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for support of the volunteer fire department and is generated from the .505 mill assessment received from Township residents.

Detention Pond/Storm Water Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to provide funds for the maintenance of detention ponds and storm water systems within the Township.

NOTES TO FINANCIAL STATEMENTS

Note 8. Fund Balance (Continued)

Reservations of fund balance (continued):

Committed - Other governmental funds (continued):

Park Improvement Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to collect certain fees to be used for park improvement projects within the Township.

Capital Project Reserves - the Township's committed fund balances in the Capital Expenditure Fund and Apparatus Fund are committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for capital projects.

Debt Service Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for the repayment of principal and interest on Township debt.

Disbursement of fund balance reserves:

No formal policy has been adopted by the Township regarding disbursement of funds within the fund balance reserves; however, disbursement is approved by the Board of Supervisors by inclusion in the approved annual budget and amendments thereto.

Annual review and determination of fund balance reserve amounts:

Compliance with the provisions of this policy shall be reviewed as a part of the annual budget adoption process and the amounts of nonspendable, restricted, committed, assigned and the minimum level of unassigned fund balance shall be determined during this process.

Note 9. Pension Plans

The Township administers and contributes to two defined benefit pension plans: the Exeter Township Police Pension Plan and the Exeter Township Employees' Pension Plan. The assets of the plans are invested separately, and each plan's assets may be used only for the payment of benefits to the members of that plan, in accordance with the terms of the plan.

Valuation of investments:

All investments of the pension plans are reported at fair value based on quoted market values.

NOTES TO FINANCIAL STATEMENTS

Note 9. Pension Plans (Continued)

Plan description and funding policy:

Exeter Township Police Pension Plan:

Plan description:

The Exeter Township Police Pension Plan (the "Police Plan") provides retirement benefits, as well as death and disability benefits. All benefits vest after 12 years of service. Employees who retire at or after age 50 with 25 years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 50% of their average monthly pay, plus a service increment equal to \$ 50 per year of service in excess of 25 years of service, up to a maximum service increment of \$ 100 per month. Average monthly pay is based upon the last 36 months of employment. An option for early retirement is available for employees after completion of 20 years of service.

Contributions:

Active, covered employees are required to contribute to the Police Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Police Plan. The current rate is 15.3% of annual covered payroll. Employees currently contribute to the Police Plan at a rate of 8.0% of their compensation for 2011. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Exeter Township Employees' Pension Plan:

Plan description:

The Exeter Township Employees' Pension Plan (the "Employees' Plan") provides retirement benefits, as well as death and disability benefits. All benefits vest at 100% after five years of service. Employees who retire at or after age 62 and completion of five years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1.75% of average monthly pay multiplied by the number of years of service. If a member was a participant prior to December 31, 1995, an additional monthly benefit is payable of \$ 10 multiplied by the number of years of service as of December 31, 1995. Average monthly pay is based upon the employee's last 36 months of W-2 earnings excluding unused vacation, sick and personal days. An option for early retirement is available for employees who reach the age of 55 and have completed 15 years of service.

NOTES TO FINANCIAL STATEMENTS

Note 9. Pension Plans (Continued)

Plan description and funding policy (continued):

Exeter Township Employees' Pension Plan (continued):

Contributions:

Active, covered employees are required to contribute to the Employees' Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Employees' Plan. The current rate is 7.9% of annual covered payroll. Member contributions are currently suspended. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Annual pension cost and net pension obligation (asset):

The Township's annual pension cost and net pension obligation (asset) to the pension plans for the current year are as follows:

	Police Plan	Employees' Plan
Annual required contribution	\$ 447,195	\$ 107,469
Adjustment to annual required contribution	-	-
Annual pension cost	447,195	107,469
Contributions made	447,195	107,469
Change in net pension obligation (asset)	-	-
Net pension obligation (asset), beginning of year	-	-
Net pension obligation (asset), end of year	\$ -	\$ -

Exeter Township Police Pension Plan:

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal actuarial cost method. The actuarial assumptions included (a) 8% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

NOTES TO FINANCIAL STATEMENTS

Note 9. Pension Plans (Continued)

Annual pension cost and net pension obligation (asset) (continued):

Exeter Township Police Pension Plan (continued):

Three-year trend information:

Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (Asset)
12/31/09	\$ 254,354	100%	\$ -
12/31/10	\$ 268,564	100%	\$ -
12/31/11	\$ 447,195	100%	\$ -

Exeter Township Employees' Pension Plan:

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal cost method. The actuarial assumptions included (a) 7.75% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-year trend information:

Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (Asset)
12/31/09	\$ 100,572	100%	\$ -
12/31/10	\$ 102,880	100%	\$ -
12/31/11	\$ 107,469	100%	\$ -

NOTES TO FINANCIAL STATEMENTS

Note 9. Pension Plans (Continued)

Funded status and funding progress:

The funded status of Exeter Township's Police Pension Plan as of January 1, 2011, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Liability (AAL) - Entry Age (b)	Underfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 9,759,266	\$ 11,371,131	\$ 1,611,865	86%	\$ 2,552,468	63%

The funded status of Exeter Township's Employees' Pension Plan as of January 1, 2011, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Liability (AAL) - Entry Age (b)	Underfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 787,611	\$ 1,320,042	\$ 532,431	60%	\$ 546,007	98%

The Schedules of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits. The information about the funded status is prepared using the entry age normal actuarial cost method.

NOTES TO FINANCIAL STATEMENTS

Note 9. Pension Plans (Continued)

Plan membership:

Membership in the pension plans as of January 1, 2011, the most recent actuarial valuation date, is comprised of the following:

	Police Plan	Employees' Plan
Active employees	29	8
Retirees and beneficiaries currently receiving benefits	11	4
Terminated employees entitled to benefits, but not yet receiving benefits	<u>1</u>	<u>4</u>
	<u>41</u>	<u>16</u>

Note 10. Central Pennsylvania Teamsters Pension Fund

The Township contributes to the Central Pennsylvania Teamsters Pension Fund, a union-sponsored, multi-employer retirement plan in accordance with negotiated labor contracts. The plan covers all of the Township's eligible union employees. Contributions to the plan are based on varying rates for hours worked by the employees. Contributions totaled \$ 177,600 for the year ended December 31, 2011.

Governmental regulations impose certain requirements relative to multi-employer plans. In the event of plan termination or employer withdrawal, an employer may be liable for a portion of the plan's unfunded vested benefits. The Township has not received information from the plan's administrators to determine its share of unfunded vested benefits. The Township does not anticipate withdrawal from the plan, nor is the Township aware of any expected plan termination.

Note 11. Post-Employment Benefits Other than Pensions

Plan descriptions:

The Township sponsors a post-employment benefits plan that covers health and life insurance benefits for eligible retirees. Groups of retirees that are eligible for these benefits are police, teamsters and management. The plan does not issue a publicly available financial report. Benefit provisions are established and amended through negotiations between the Township and the respective union.

NOTES TO FINANCIAL STATEMENTS

Note 11. Post-Employment Benefits Other than Pensions (Continued)

Funding policy and annual OPEB cost:

The Township currently funds OPEB costs as they occur. For 2011, the Township's estimated contribution to the plan was \$ 69,434 for current premiums, including the implicit rate study.

The Township's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The Township's annual OPEB cost for the current year and the related information for each plan are as follows:

Annual required contribution (ARC)		\$ 842,145
Interest on net OPEB obligation		75,862
Adjustment to the annual required contribution		<u>(103,495)</u>
Annual OPEB cost		814,512
Contributions made		<u>(69,434)</u>
Increase in net OPEB obligation		745,078
Net OPEB obligation, beginning of year		<u>1,685,827</u>
Net OPEB obligation, end of year		<u>\$ 2,430,905</u>

The Township's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation for each of the plans were as follows:

Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/2009	\$ 654,473	11%	\$ 1,145,822
12/31/2010	645,145	16	1,685,827
12/31/2011	814,512	9	2,430,905

NOTES TO FINANCIAL STATEMENTS

Note 11. Post-Employment Benefits Other than Pensions (Continued)

Funded status and funding progress:

The funded status of the plan as of January 1, 2011, the most recent actuarial valuation, was as follows:

Actuarial present value at attained age (APVAA):	
Active members	\$ 11,666,727
Retired members	<u>1,100,114</u>
Total APVAA	<u>\$ 12,766,841</u>
Actuarial accrued liability (AAL):	
Active members	\$ 6,107,089
Retired members	<u>1,100,114</u>
Total AAL	<u>\$ 7,207,203</u>
Actuarial value of assets (AVA)	<u>\$ -</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 7,207,203</u>
Funded ratio	- %
Covered payroll	<u>\$ 4,995,780</u>
Unfunded actuarial accrued liability (funding excess) as a percentage of covered payroll	144%
Annual required contribution (ARC):	
Normal cost	\$ 399,684
30-year amortization of UAAL	<u>442,461</u>
Total ARC	<u>\$ 842,145</u>

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required Schedules of Funding Progress presented as supplementary information provide multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial liability for benefits.

NOTES TO FINANCIAL STATEMENTS

Note 11. Post-Employment Benefits Other than Pensions (Continued)

Actuarial methods and assumptions:

Projections of benefits are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between the Township and the plan members to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions are as follows:

Actuarial valuation date	January 1, 2011
Actuarial cost method	Entry age normal
Amortization method	Level dollar method
Remaining amortization period	30-year closed period
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	4.50% per annum
Projected salary increases	5.00% per annum
Healthcare inflation rate	Declining scale from 8% in 2011, decreasing by .5% each year to 5.5% in 2016.

Note 12. Exeter Township Tax Increment Financing District

In March 2008, the Township, along with the County of Berks and the Exeter Township School District, entered into a Cooperation Agreement with the Berks County Industrial Development Authority (the "Authority"). The Authority has prepared a Tax Increment Financing (TIF) Plan referred to as the Exeter Township TIF District. The agreement sets forth the terms by which Tax Increment Revenues shall be raised from the Exeter Township TIF District and the means of financing, monitoring and directing the implementation of the TIF plan.

NOTES TO FINANCIAL STATEMENTS

Note 12. Exeter Township Tax Increment Financing District (Continued)

Under the terms of this agreement, the taxing bodies (the Township, the County of Berks and the Exeter Township School District) will remit their respective share of the positive real estate tax increments to the Authority. The Authority will deposit these funds into the Tax Increment Fund established for this project and use these funds for repayment of debt service incurred in connection with the project. The Exeter Township TIF District began on December 1, 2007 and has a term of 20 years.

In 2011, the Township remitted \$ 55,121 to the Authority. This amount represents less than 2% of total real estate taxes collected by the Township.

At December 31, 2011, the outstanding balance was \$ 5,812,000. The Township has guaranteed the Series of 2008 Tax Incremental Financing Revenue Note issued by the Authority.

Note 13. Deficit Fund Equity

The Utility Fund has deficit fund equity of \$ 12,905 as of December 31, 2011. The Fund has incurred the deficit due to expenditures in excess of revenues for street lighting and repairs incurred in that Fund. The Township plans to eliminate this deficit through revenues from assessments.

Note 14. Change in Accounting Method

On January 1, 2011, the Township changed its application of the modified cash basis of accounting to exclude certain deferred charges and liabilities on the entity-wide statements. The January 1, 2011 net assets were restated for this change as follows:

	Governmental Activities	Business-type Activities
Net assets, December 31, 2010, as previously reported	\$ (18,421,155)	\$ (16,400,752)
To remove deferred charges	(479,344)	(462,178)
To remove accrued interest payable	401,100	652,890
To remove bond premium payable	-	160,312
To remove long-term liabilities	<u>24,387,939</u>	<u>30,315,000</u>
 Net assets, December 31, 2010, as adjusted	 <u>\$ 5,888,540</u>	 <u>\$ 14,265,272</u>

NOTES TO FINANCIAL STATEMENTS

Note 15. Commitments and Contingencies

Commitments:

Capital projects:

The Township is committed to make payments on various capital construction projects in the approximate amount of \$ 942,000 at December 31, 2011.

Sewer system management:

The Township entered into an agreement with Exeter Township, Berks County, Authority for the management of Exeter Township's sewer system. Under the terms of the agreement, payments of up to \$ 60,000 from Exeter Township are due the Authority in semiannual payments of \$ 30,000 for administrative expenses through 2022, when the management agreement dated July 15, 2002 expires. For the year ended December 31, 2011, \$ 40,000 was paid to the Authority under this agreement.

Contingencies:

Litigation:

The Township is a defendant in lawsuits that have been referred to the lawyers who represent the Township's insurance carrier. While it is not feasible to determine the outcome of these matters, in the opinion of management, any total ultimate liability would not have a material effect on the Township's financial position.

Concentration of labor:

The Township entered into a collective bargaining agreement with the Police Officers Association, effective January 1, 2005 through December 31, 2009. The Police Officers Association did not request collective bargaining, so the terms and conditions of the agreement became operative for an additional four-year period commencing January 1, 2010 through December 31, 2013. The Township also entered into a collective bargaining agreement with nonuniform employees, effective January 1, 2010 through December 31, 2012. Of the Township's total workforce, 40% is covered by the agreement with the police officers and 49% is covered by the agreement with the nonuniform employees.

Note 16. Subsequent Events

The Township has evaluated subsequent events through July 5, 2012. This date is the date the financial statements were available to be issued. No material events subsequent to December 31, 2011 were noted.

EXETER TOWNSHIP

SCHEDULES OF FUNDING PROGRESS

Exeter Township Police Pension Plan:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)
January 1, 2007	\$ 8,255,119	\$ 8,410,658	\$ 155,539	98.2%
January 1, 2009	8,211,475	10,186,585	1,975,110	80.6
January 1, 2011	9,759,266	11,371,131	1,611,865	85.8

Exeter Township Employees' Pension Plan:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)
January 1, 2007	\$ 416,016	\$ 957,043	\$ 541,027	43.5%
January 1, 2009	566,223	1,081,790	515,567	52.3
January 1, 2011	787,611	1,320,042	532,431	59.7

Exeter Township Post-Employment Benefits Other than Pensions:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)
January 1, 2008	\$ -	\$ 5,314,263	\$ 5,314,263	- %
January 1, 2011	-	7,207,203	7,207,203	-

Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 2,323,358	6.7%
2,538,835	77.8
2,552,468	63.1

Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 468,822	115.4%
535,326	96.3
546,007	97.5

Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 4,718,187	113.0%
4,995,780	144.0

EXETER TOWNSHIP

**BUDGETARY COMPARISON SCHEDULE - MODIFIED CASH BASIS
GENERAL FUND**

Year Ended December 31, 2011

	- - - Budgeted Amounts - - -		Actual	Variance with
	Original	Final	Amounts	Final Budget
REVENUES				
Taxes:				
Real estate	\$ 2,176,000	\$ 2,176,000	\$ 2,182,538	\$ 6,538
Real estate transfer	400,000	400,000	298,519	(101,481)
Per capita	71,500	71,500	71,996	496
Earned income	3,200,000	3,200,000	3,266,915	66,915
Local services	300,000	300,000	311,700	11,700
Business privilege	400,000	400,000	408,517	8,517
Licenses and permits	308,900	308,900	409,710	100,810
Fines and forfeits	182,000	182,000	127,643	(54,357)
Interest and rents	60,000	60,000	71,556	11,556
Intergovernmental revenues	817,926	817,926	1,462,309	644,383
Charges for services	1,185,920	1,185,920	1,156,425	(29,495)
Miscellaneous	75,000	75,000	280,900	205,900
	<u>9,177,246</u>	<u>9,177,246</u>	<u>10,048,728</u>	<u>871,482</u>
Total revenues	9,177,246	9,177,246	10,048,728	871,482
EXPENDITURES				
Current:				
General government	766,836	766,836	707,375	59,461
Public safety	5,021,682	5,021,682	5,236,047	(214,365)
Health and human services	31,300	31,300	38,797	(7,497)
Public works - sanitation	300,000	300,000	298,987	1,013
Public works - highways and street:	1,721,776	1,721,776	1,712,264	9,512
Culture and recreation	569,685	569,685	551,542	18,143
Community development	50,000	50,000	39,648	10,352
Debt service:				
Principal	-	-	267,992	(267,992)
Interest	403,851	403,851	114,784	289,067
Benefits	94,425	94,425	106,889	(12,464)
Property and casualty insurance	166,800	166,800	148,680	18,120
Capital outlay	205,269	205,269	163,597	41,672
Miscellaneous	160,500	160,500	290,639	(130,139)
	<u>9,492,124</u>	<u>9,492,124</u>	<u>9,677,241</u>	<u>(185,117)</u>
Total expenditures	9,492,124	9,492,124	9,677,241	(185,117)
Excess (deficiency) of revenues over (under) expenditures	(314,878)	(314,878)	371,487	686,365

EXETER TOWNSHIP

BUDGETARY COMPARISON SCHEDULE - MODIFIED CASH BASIS (CONTINUED)
GENERAL FUND
Year Ended December 31, 2011

	---- Budgeted Amounts ----		Actual	Variance with
	Original	Final	Amounts	Final Budget
OTHER FINANCING SOURCES				
(USES)				
Transfers in	\$ 56,824	\$ 56,824	\$ 1,455	\$ (55,369)
Transfers out	-	-	(70,069)	(70,069)
Sale of assets	-	-	2,291	2,291
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total other financing sources (uses)	<u>56,824</u>	<u>56,824</u>	<u>(66,323)</u>	<u>(123,147)</u>
Net change in fund balance	<u>\$ (258,054)</u>	<u>\$ (258,054)</u>	305,164	<u>\$ 563,218</u>
Fund balance, beginning of year			<u>2,798,093</u>	
Fund balance, end of year			<u>\$ 3,103,257</u>	

See Note to Budgetary Comparison Schedules.

EXETER TOWNSHIP

**BUDGETARY COMPARISON SCHEDULE - MODIFIED CASH BASIS
UTILITY FUND
Year Ended December 31, 2011**

	---- Budgeted Amounts ----		Actual	Variance with
	Original	Final	Amounts	Final Budget
REVENUES				
Taxes, real estate	\$ 199,300	\$ 199,300	\$ 203,050	\$ 3,750
Interest and rents	750	750	637	(113)
Total revenues	200,050	200,050	203,687	3,637
EXPENDITURES				
Current:				
Public safety	102,000	102,000	89,968	12,032
Public works - highway and streets	90,000	90,000	148,928	(58,928)
Community development	-	-	2,176	(2,176)
Total expenditures	192,000	192,000	241,072	(49,072)
Excess (deficiency) of revenues over (under) expenditures	8,050	8,050	(37,385)	(45,435)
Net change in fund balance	\$ 8,050	\$ 8,050	(37,385)	\$ (45,435)
Fund balance, beginning of year			24,480	
Fund balance (deficit), end of year			\$ (12,905)	

See Note to Budgetary Comparison Schedules.

EXETER TOWNSHIP

NOTE TO BUDGETARY COMPARISON SCHEDULES

Note 1. Budget Matters

The Board of Supervisors annually adopts the budget for the General, Utility, Fire, Park Improvement, State Liquid Fuels Highway Aid, Capital Expenditure, Capital Improvement, Golf Acquisition, Apparatus, Traffic Improvement, Debt Service and Sewer and Country Club Funds. Budgetary control is legally maintained at the fund level.

The Second Class Township Code provides for the modification of the budget and supplemental appropriations and transfers.

Appropriations, except open project appropriations, encumbrances and unexpended grant appropriations, lapse at the end of each fiscal year.

The budget is prepared on the same modified cash basis of accounting as applied to the governmental funds in the basic financial statements.

EXETER TOWNSHIP

**COMBINING STATEMENT OF ASSETS AND FUND BALANCES - MODIFIED CASH BASIS
OTHER GOVERNMENTAL FUNDS
December 31, 2011**

ASSETS	Special Revenue Funds					Capital Project Funds					Debt Service Fund	Total Other Governmental Funds
	Fire	Detention Permit/ Storm Water	K-8	Park Improvement	State Liquid Funds Highway Aid	Capital Expenditures	Capital Improvement	Golf Acquisition	Apparatus	Traffic Improvement		
Cash:												
Unrestricted	\$ 66,648	\$ 74,998	\$ -	\$ 261,897	\$ -	\$ 280,774	\$ -	\$ -	\$ 100,311	\$ -	\$ -	\$ 763,234
Restricted	-	-	3,877	10,882	174,437	-	361,585	848,879	-	204,868	373,768	1,876,884
Total assets	\$ 66,648	\$ 74,998	\$ 3,877	\$ 281,849	\$ 174,437	\$ 280,774	\$ 361,585	\$ 848,879	\$ 100,311	\$ 204,868	\$ 373,768	\$ 2,788,308
FUND BALANCES												
Restricted	\$ -	\$ -	\$ 3,877	\$ 10,882	\$ 174,437	\$ -	\$ 361,585	\$ 848,879	\$ -	\$ 204,868	\$ -	\$ 1,801,215
Committed	66,648	74,998	-	281,087	-	280,774	-	-	100,311	-	373,768	1,128,893
Total fund balances	\$ 66,648	\$ 74,998	\$ 3,877	\$ 281,087	\$ 174,437	\$ 280,774	\$ 361,585	\$ 848,879	\$ 100,311	\$ 204,868	\$ 373,768	\$ 2,788,308

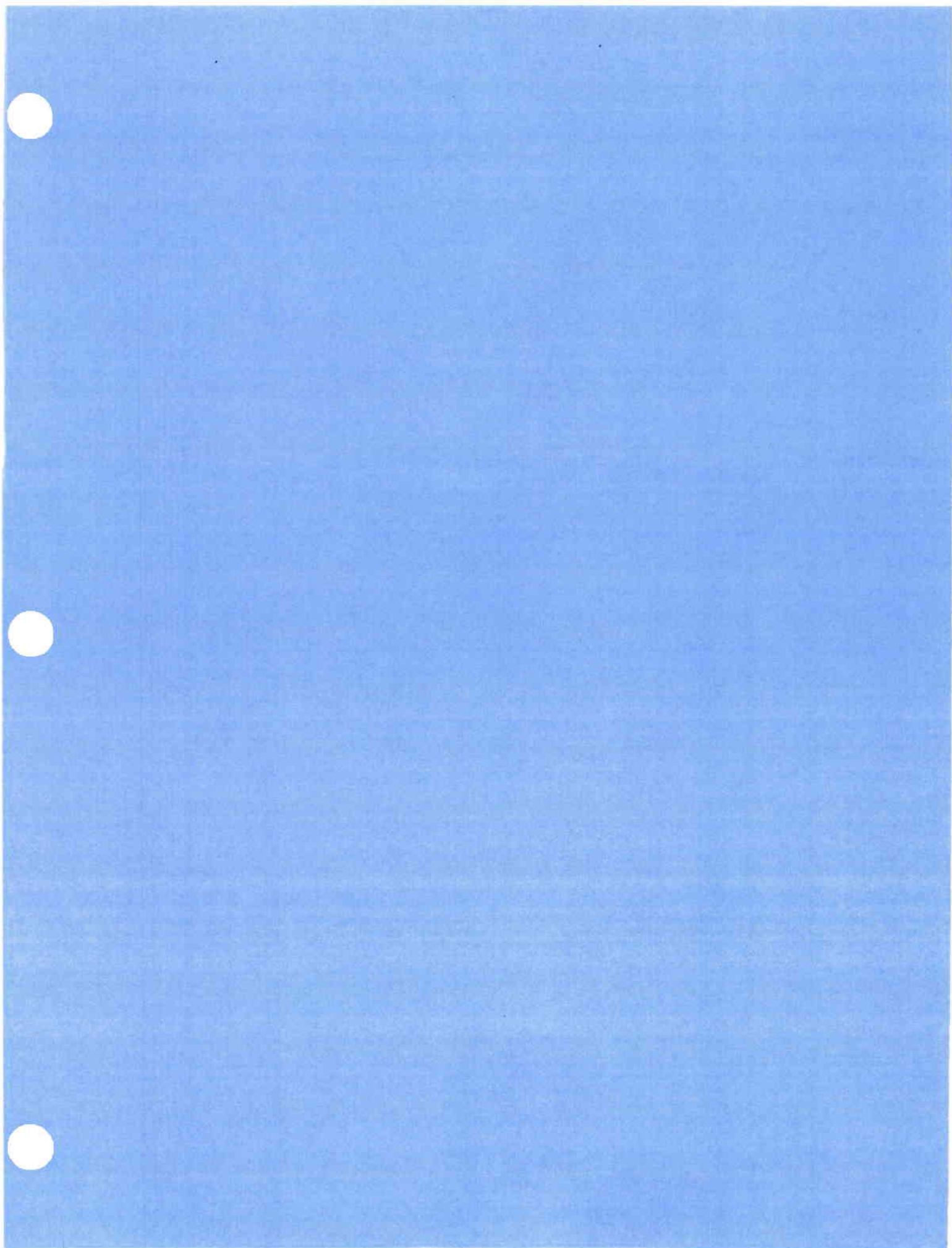
See Notes to Financial Statements.

EXETER TOWNSHIP

COMBINED STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS
OTHER GOVERNMENTAL FUNDS
Year Ended December 31, 2011

	Special Revenue Funds					Capital Project Funds					Debt Service Fund	Total Other Governmental Funds
	Fire	Detention Pond/Storm Water	K-9	Park Improvement	State Liquid Fuels Highway Aid	Capital Expenditure	Capital Improvement	Golf Acquisition	Apparatus	Traffic Improvement		
REVENUES												
Taxes, real estate	\$ 937,042	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 686,426	\$ 1,329,466
Interest and rents	1,186	870	57	3,665	4,768	40,758	8,948	12,303	569	3,819	-	75,026
Intergovernmental revenues	38,888	-	-	33,808	543,438	-	70,888	-	11,854	-	-	689,882
Charges for services	-	-	-	19,474	-	-	-	-	-	-	-	19,474
Miscellaneous	-	6,157	290	-	-	100	33,026	-	-	-	-	42,545
Total revenues	688,610	10,127	307	66,988	548,238	40,858	109,890	12,303	12,343	3,819	686,426	2,162,206
EXPENDITURES												
Current:												
General government	-	2,278	-	-	-	-	-	-	-	-	-	2,278
Public safety	502,087	-	-	-	-	-	-	-	-	-	-	502,087
Public works - Highways and streets	-	-	-	-	78,711	-	-	-	-	108,858	-	188,869
Culture and recreation	-	-	-	120,248	-	-	-	38	-	-	-	120,275
Community development	-	-	-	-	-	-	-	-	-	-	13,287	13,287
Debt service:												
Principal	-	-	-	-	-	-	-	-	87,868	-	40,880	127,868
Interest	-	-	-	-	-	-	-	-	6,328	-	819,648	825,976
Benefits	-	-	-	-	-	-	-	-	-	-	-	-
Capital outlay	-	-	-	-	463,468	32,198	398,838	126,087	-	-	-	897,887
Miscellaneous	-	-	-	-	-	-	-	-	-	-	323	323
Total expenditures	502,087	2,278	-	120,248	633,177	32,198	398,838	125,118	94,298	108,888	873,288	2,778,478
Excess (deficiency) of revenues over (under) expenditures	186,523	7,849	307	(53,277)	15,060	8,660	(278,952)	(112,815)	(81,955)	(105,139)	(174,862)	(616,272)
OTHER FINANCING SOURCES (USES)												
Transfers in	-	-	-	-	-	70,888	-	-	130,000	-	248,000	448,888
Transfers out	(138,888)	-	(1,453)	-	-	-	-	-	-	-	-	(139,453)
Total other financing sources (uses)	(138,888)	-	(1,453)	-	-	70,888	-	-	138,000	-	248,000	309,435
Net change in fund balances	47,635	7,849	(1,146)	(69,277)	15,060	78,732	(278,952)	(112,815)	46,867	(105,139)	85,138	(307,649)
Fund balances, beginning of year	38,243	87,145	4,825	325,228	158,378	212,842	638,517	858,882	52,244	318,024	368,811	3,085,887
Fund balances, end of year	\$ 85,878	\$ 94,994	\$ 3,679	\$ 255,951	\$ 173,438	\$ 291,574	\$ 359,565	\$ 746,067	\$ 99,111	\$ 212,885	\$ 453,949	\$ 2,778,238

See Notes to Financial Statements.



**EXETER TOWNSHIP, BERKS COUNTY,
PENNSYLVANIA**

FINANCIAL REPORT

DECEMBER 31, 2012



REINSEL KUNTZ LESHER
certified public accountants & consultants

FOCUSED. ON YOU.

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REINSEL KUNTZ LESHER
certified public accountants & consultants

INDEPENDENT AUDITOR'S REPORT

**To the Board of Supervisors
Exeter Township
Berks County, Pennsylvania**

Report on the Financial Statements

We have audited the accompanying modified cash basis financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information and the related notes to the financial statements of Exeter Township (the Township), Berks County, Pennsylvania, as of and for the year ended December 31, 2012 which collectively comprise the Township's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified cash basis of accounting described in Note 1, this includes that the modified cash basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Township's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Auditor's Responsibility (Continued)

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Basis for Qualified Opinion

Management has not included financial information for Exeter Township's component units, Exeter Township, Berks County, Authority and the Exeter Community Library, in the Township's financial statements. Accounting principles applicable to the Township's modified cash basis of accounting requires inclusion of the financial information of Exeter Township, Berks County, Authority and the Exeter Community Library with the financial information of the Township.

Qualified Opinion

In our opinion, except for the effects of not including financial information for the component units, Exeter Township, Berks County, Authority and the Exeter Community Library, as described in the basis for qualified opinion paragraph, the financial statements referred to above present fairly, in all material respects, the modified cash basis financial position of the governmental activities, each major fund and the aggregate remaining fund information of Exeter Township, Berks County, Pennsylvania, as of December 31, 2012, and the respective changes – modified cash basis financial position thereof for the year then ended in accordance with the basis of accounting described in Note 1.

Report on Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on Pages 4-13 and other required supplementary information on Pages 53-58 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Report on Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole that collectively comprise Exeter Township's basic financial statements. The supplementary information presented in the table of contents under the heading Supplementary Information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and related directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statement or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole, on the basis of accounting described in Note 1.

Basis of Accounting

We draw attention to Note 1 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted on the United States of America. Our opinions are not modified with respect to this matter.

Reinal Kuntz Leisher LLP

September 4, 2013
Wyomissing, Pennsylvania

EXETER TOWNSHIP

MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of Exeter Township's (the Township) financial performance provides an overview of the Township's financial activities for the year ended December 31, 2012, within the limitations of the Township's modified cash basis of accounting. Please read it in conjunction with the Township's financial statements that begin on page 14.

Financial Highlights

- The Township's total expenditures exceeded total revenues on the modified cash basis of accounting by \$ 983,586 for the year ended December 31, 2012, compared to an excess of expenditures over revenues of \$ 341,106 for the year ended December 31, 2011. This resulted in a decrease of total net position of 5% for the year ended December 31, 2012, compared to a decrease of 1.7% for the year ended December 31, 2011.
- At December 31, 2012, the Township's governmental funds reported combined ending fund balances of \$ 5,876,397; an increase of \$ 27,737 from the prior year. \$ 2,202,598 or 37.5% of the ending fund balance is *available for spending* at the Township's discretion (*unassigned fund balance*). The General Fund highlights are as follows:
 - The Township's General Fund had a decrease in its fund balance of \$ 103,261 to \$ 2,999,996. As part of managing the finances of the Township, a fund balance is maintained in order to provide adequate financial resources to pay for services to the citizens of the Township during periods when tax and other revenue collections are not sufficient to fund daily operating costs. This generally occurs in the first few months of each year. This enables the Township to avoid having to borrow money to cover operating expenses prior to the receipt of tax revenues, which are assessed March 1 of each year. At December 31, 2012, the unassigned fund balance of the General Fund was \$ 2,202,598 or 24.4% of total General Fund expenditures.
- At December 31, 2012, the Township's business-type activities reported net position of \$ 12,952,723, a decrease of \$ 1,011,323 from the prior year.

USING THIS ANNUAL REPORT

This annual report is presented in a format consistent with the presentation requirements of the Governmental Accounting Standards Board (GASB) Statement No. 34, as applicable to the Township's modified cash basis of accounting.

Report Components

This annual report consists of five parts as follows:

Government-Wide Financial Statements: The statement of net position - modified cash basis and the statement of activities - modified cash basis (on pages 14 and 15) provide information about the activities of the Township government-wide (or "as a whole") and present a longer-term view of the Township's finances. The statement of activities reports revenues and expenditures utilizing the modified cash basis of accounting as described in Note 1 to the financial statements.

Fund Financial Statements: Fund financial statements (starting on page 16) focus on the individual parts of the Township's government. Fund financial statements also report the Township's operations in more detail than the government-wide statements by providing information about the Township's most significant ("major") funds. For governmental funds, these statements tell how these services were financed in the short-term as well as what remains for future spending. For the proprietary funds, these statements offer information about the funds the Township operates like a business, such as the sewer fund and the country club.

Notes to the Financial Statements: The notes to the financial statements are an integral part of the government-wide and fund financial statements and provide expanded explanation and detail regarding the information reported in the statements.

Required Supplementary Information: The management's discussion and analysis (pages 4 through 13), the schedules of funding progress (page 53) and the budgetary comparison schedule (pages 54 through 56) represent financial information required by GASB to be presented. Such information provides users of this report with additional data that supplements the government-wide statements, fund financial statements and notes (referred to as "the basic financial statements").

Other Supplementary Information: This part of the annual report (starting on page 57) includes optional financial information such as combining statements for nonmajor funds (which are added together and shown in the fund financial statements in a single column). This other supplemental financial information is provided to address certain specific needs of various users of the Township's annual report.

Basis of Accounting

The Township has elected to present its financial statements on the modified cash basis of accounting. The modified cash basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America. The term "basis of accounting" is a reference to when financial events are recorded. Under the modified cash basis of accounting, only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned, and expenditures are generally recognized when paid rather than when the related liability is incurred.

USING THIS ANNUAL REPORT (CONTINUED)

Basis of Accounting (Continued)

As a result of the use of the modified cash basis of accounting, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation are not recorded in these financial statements. Therefore, when reviewing the financial information and discussion within this annual report, the reader should keep in mind the limitations resulting from the use of the modified cash basis of accounting.

Reporting the Township as a Whole

The Township's Reporting Entity Presentation

This annual report includes only the primary government of the Township, which consists of all funds, organizations, institutions, agencies, departments and offices that comprise the Township's legal entity. Accounting principles generally accepted in the United States of America require that the reporting entity include the primary government, organizations for which the primary government is financially accountable and other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define the reporting entity, we have considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the significance of their operational or financial relationships with the Township. The following component units meet the requirements for inclusion, under the above criteria, but are not included in the Township's annual report: Exeter Township, Berks County Authority and Exeter Community Library.

The Government-Wide Statement of Net Position and the Statement of Activities

The government-wide financial statements are presented on pages 14 and 15. One of the most important questions asked about the Township's finances is, "Is the Township as a whole better off or worse as a result of the year's activities?" The statement of net position - modified cash basis and the statement of activities - modified cash basis report information about the Township as a whole and about its activities in a way that helps answer this question. These statements include only the Township's assets and the related liabilities referred to above resulting from the use of the modified cash basis of accounting.

These two statements report the Township's net position and changes in them. Over time, increases or decreases in the Township's net position are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors to assess the overall health of the Township, i.e., changes in the Township's tax base, the condition of the Township's roads, etc. In addition, the limitations of the modified cash basis of accounting should be considered when analyzing the overall financial health of the Township.

USING THIS ANNUAL REPORT (CONTINUED)

Reporting the Township as a Whole (Continued)

The Government-Wide Statement of Net Position and the Statement of Activities (continued)

In the Statement of Net Position and the Statement of Activities, we divide the Township into two kinds of activities:

Governmental activities: Most of the Township's basic services are reported here, including general government services, public safety, public works, and culture and recreation. Charges for services finance a portion of the costs to provide these services. Costs not recovered through charges are financed from grants, contributions and general revenues of the Township, including real estate taxes and income taxes.

Business-type activities: The Township charges a fee to customers to help it cover all or most of the cost of certain services it provides. The Township's sewer system and country club are reported here.

Reporting the Township's Most Significant Funds

The Fund Financial Statements

The fund financial statements begin on page 16 and provide detailed information about the most significant funds - not the Township as a whole. Some funds are required to be established by state law or by bond covenants. However, the Township establishes certain other funds to help it control and manage money for particular purposes or to show that it is meeting legal responsibilities for using certain taxes, grants and other money. The Township's two kinds of funds - governmental and proprietary - under the modified cash basis of accounting use the same accounting approaches.

Governmental funds - Most of the Township's basic services are reported in governmental funds which focus on how money flows into and out of those funds and the balances remaining at year-end that are available for spending. These funds report the acquisition of capital assets and payments for debt principal as cash disbursements and not as changes to asset and debt balances. The governmental fund statements provide a detailed short-term view of the Township's general government operations and the basic services it provides. Governmental fund information helps you determine (through a review of changes to fund balance) whether there are more or fewer financial resources that can be spent in the near future to finance the Township's programs.

Proprietary funds - When the Township charges customers for the services it provides, these services are generally reported in proprietary funds. Proprietary funds are reported in the same way that all activities are reported in the statement of net position and the statement of activities.

Fiduciary funds - Fiduciary funds are often used to account for assets that are held in a trustee or fiduciary capacity such as pension plan assets, assets held per trust agreements and similar arrangements.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE

Net Position - Modified Cash Basis

The Township's Primary Government net position, resulting from modified cash basis transactions, decreased by \$ 983,586 or 5%, from fiscal year 2011 to 2012. Combined net position was \$ 18,829,120 and \$ 19,812,706 at December 31, 2012 and 2011, respectively. Looking at the net position of governmental and business-type activities separately, governmental activities had an increase of \$ 27,737 while business-type activities had a decrease of \$ 1,011,323.

A condensed summary of the Township's Statement of Net Position at December 31, 2012 and 2011 is presented below:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2012	2011	2012	2011	2012	2011
Assets:						
Total Assets (Non-Capital)	<u>\$ 5,914,050</u>	<u>\$ 5,886,061</u>	<u>\$ 13,030,773</u>	<u>\$ 13,964,046</u>	<u>\$ 18,944,823</u>	<u>\$ 19,850,107</u>
Liabilities:						
Deposits held in escrow	\$ 37,653	\$ 37,401	\$ -	\$ -	\$ 37,653	\$ 37,401
Advance deposit	-	-	78,050	-	78,050	-
Total liabilities	<u>\$ 37,653</u>	<u>\$ 37,401</u>	<u>\$ 78,050</u>	<u>\$ -</u>	<u>\$ 115,703</u>	<u>\$ 37,401</u>
Net Position:						
Unrestricted	4,485,209	4,173,533	10,336,773	10,438,751	14,821,982	14,612,284
Restricted	<u>1,391,188</u>	<u>1,675,127</u>	<u>2,615,950</u>	<u>3,525,295</u>	<u>4,007,138</u>	<u>5,200,422</u>
Total Net Position	<u>\$ 5,876,397</u>	<u>\$ 5,848,660</u>	<u>\$ 12,952,723</u>	<u>\$ 13,964,046</u>	<u>\$ 18,829,120</u>	<u>\$ 19,812,706</u>

Net position is shown as restricted if it can only be used for a specific purpose. Net position of \$ 4,007,138 and \$ 5,200,422 at December 31, 2012 and 2011, respectively, is restricted and the remaining net position is unrestricted at the end of the year.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Changes in Net Position - Modified Cash Basis

For the year ended December 31, 2012 and 2011, the net position of the Township (resulting from modified cash basis transactions) changed as follows:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2012	2011	2012	2011	2012	2011
Program revenues:						
Charges for services	\$ 1,619,778	\$ 1,713,252	\$ 7,970,273	\$ 8,508,040	\$ 9,590,051	\$ 10,221,292
Operating grants and contributions	1,465,615	2,152,001	-	-	1,465,615	2,152,001
General revenues:						
Real estate taxes	3,676,342	3,721,056	-	-	3,676,342	3,721,056
Per capita taxes	69,684	71,996	-	-	69,684	71,996
Real estate transfer taxes	253,189	298,519	-	-	253,189	298,519
Earned income taxes	3,021,920	3,266,915	-	-	3,021,920	3,266,915
Local services tax	314,950	311,700	-	-	314,950	311,700
Business privilege tax	523,805	408,517	-	-	523,805	408,517
Interest and rents	92,686	147,219	394,106	460,120	486,792	607,339
Sale of assets	11,489	2,291	-	-	11,489	2,291
Other income	244,360	323,445	-	-	244,360	323,445
Proceeds of bond issuance and bond premium	3,623,397	-	6,069,064	-	9,692,461	-
Total revenues	\$ 14,917,215	\$ 12,416,911	\$ 14,433,443	\$ 8,968,160	\$ 29,350,658	\$ 21,385,071
Expenditures:						
General government	\$ 708,599	\$ 709,651	\$ -	\$ -	\$ 708,599	\$ 709,651
Public safety	5,506,280	5,828,022	-	-	5,506,280	5,828,022
Health and human services	35,183	38,797	-	-	35,183	38,797
Public works - sanitation	179,463	298,987	-	-	179,463	298,987
Public works - highways and streets	1,971,093	2,049,861	-	-	1,971,093	2,049,861
Culture and recreation	634,805	671,817	-	-	634,805	671,817
Community development	55,121	55,121	-	-	55,121	55,121
Debt service	4,930,171	1,336,720	-	-	4,930,171	1,336,720
Benefits	93,301	106,889	-	-	93,301	106,889
Property and casualty insurance	155,369	148,680	-	-	155,369	148,680
Capital outlay	716,390	1,161,284	-	-	716,390	1,161,284
Miscellaneous	173,703	290,962	-	-	173,703	290,962
Sewer	-	-	12,385,232	6,371,894	12,385,232	6,371,894
Country club	-	-	2,789,534	2,657,492	2,789,534	2,657,492
Total expenditures	\$ 15,159,478	\$ 12,696,791	\$ 15,174,766	\$ 9,029,386	\$ 30,334,244	\$ 21,726,177
Deficiency of revenues under expenditures before transfers	\$ (242,263)	\$ (279,880)	\$ (741,323)	\$ (61,226)	\$ (983,586)	\$ (341,106)
Transfers:						
Transfers	\$ 270,000	\$ 240,000	\$ (270,000)	\$ (240,000)	\$ -	\$ -
Changes in net position	\$ 27,737	\$ (39,880)	\$ (1,011,323)	\$ (301,226)	\$ (983,586)	\$ (341,106)
Net position, beginning of year	5,848,660	5,888,540	13,964,046	14,265,272	19,812,706	20,153,812
Net position, end of year	\$ 5,876,397	\$ 5,848,660	\$ 12,952,723	\$ 13,964,046	\$ 18,829,120	\$ 19,812,706

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Governmental Activities

To aid in the understanding of the statement of activities, some additional explanation is given. Of particular interest is the format that is significantly different from a typical statement of revenues, expenditures and changes in fund balance. You will notice that expenditures are listed in the first column, with revenues from that particular program reported to the right. The result is a net revenue or expenditure. This type of format highlights the relative financial burden of each of the functions on the Township's taxpayers. It also identifies how much each function draws from the general revenues or if it is self-financing through fees and grants or contributions. All other governmental revenues are reported as general. It is important to note that all taxes are classified as general revenues, even if restricted for a specific purpose.

For the years ended December 31, 2012 and 2011, total revenues for governmental activities, resulting from modified cash basis transactions amounted to \$ 14,917,215 and \$ 12,416,911 respectively.

For the year ended December 31, 2012, total disbursements for governmental activities, resulting from modified cash basis transactions, amounted to \$ 15,159,478. Of these total disbursements, taxpayers and other general revenues funded \$ 11,831,822 while those directly benefiting from the program funded \$ 1,465,615 from operating grants and contributions and \$ 1,619,778 from charges for services.

Some noteworthy events occurred in 2012 that are highlighted as follows:

- The Township real estate tax for 2012 was 1.64 mills for general purposes, .505 mills for the purchase of fire apparatus and making appropriations to fire companies, and .55 mills for the purpose of debt service related to the acquisition of the Reading Country Club.
- Earned income taxes decreased \$ 244,995 or 7% from 2011.
- Business Privilege Tax increased \$ 115,288 or 28% from 2011.
- Operating grants and contributions decreased \$ 686,386 from 2011. A majority of the decrease was due to the \$ 217,266 decrease in state aid for municipal pensions, the \$ 126,260 decrease in the state aid passed through to the Exeter Volunteer Fire Relief Association and the 2011 BCERT pass through operating grant for \$ 339,442.
- Public safety expenditures decreased \$ 321,742 from 2011. This was mostly due to the 2011 purchase of equipment for the Berks County Emergency Response Team (BCERT) with funds available from the BCERT pass through operating grant in the amount of \$ 339,442.
- Debt service expenditures include \$ 3,560,601 from the advance refunding of the Series A of 2009 General Obligation Notes with the proceeds from the issuance of the Series of 2012 General Obligation Notes in the amount of \$ 3,615,000. This debt refinancing will save the Township approximately \$ 588,400 in debt service payments through July 2024.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Business-Type Activities

In reviewing the business-type activities net revenues/expenditures resulting from modified cash basis transactions, there are certain activities that need to be examined more closely. The business-type activities reported a net loss before transfers of \$ 741,323, transfers to other funds totaled \$ 270,000, resulting in a decrease in net position of \$ 1,011,323. The Sewer Fund had a \$ 1,063,740 decrease in net position. The decrease was due mainly to the use of 2009 unspent bond proceeds to pay for the 2012 capital expenditures. The Sewer Fund also advance refunded a portion of the Series A of 2009 General Obligation Notes with the proceeds from the issuance of the Series of 2012 General Obligation Notes. The debt refinancing will save the Township approximately \$ 490,600 in debt service payments through July 2026. The Country Club had a \$ 52,417 increase in net position. Net income before transfers was \$ 322,417. Transfers of \$ 270,000 to the debt service fund will be used to pay off the debt incurred to purchase the property.

A FINANCIAL ANALYSIS OF THE TOWNSHIP'S FUNDS

In reviewing individual funds of the Township, certain funds experienced significant changes to be considered in analyzing the Township's funds:

- Utility Fund - Total expenditures decreased \$ 68,584 or 28% from 2011. This was mostly due to the energy savings resulting from the LED street light retrofit project.
- Golf Acquisition Fund - During 2012, \$ 69,538 was expended for capital improvements to the Country Club including \$ 9,447 for half the cost of installing a flashing warning device at Gibraltar Road, \$ 7,630 for a new phone system, \$ 8,279 for HVAC and roof repairs, \$ 13,540 for golf course equipment, \$ 14,451 to rebuild a bridge and bunker restoration on the golf course and \$ 14,693 for exterior painting, outdoor patio, and water softener replacement.
- Capital Improvement Fund - During 2012, \$ 36,553 was expended for the completion of the LED street light retrofit project. \$ 63,882 was expended for the Butter Lane Box Culvert. \$ 9,447 was expended for half the cost of installing a flashing warning device at Gibraltar Road.
- Capital Expenditure Fund - During 2012, the Township terminated the 2005 interest rate basis swap. The Rate Stabilization Account in the General Fund was closed and the balance of \$ 95,055 was transferred to the capital expenditure fund for future capital needs.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The acquisition of capital assets by the Township is reported as expenditures in the year of acquisition in the fund acquiring the related assets.

CAPITAL ASSETS AND DEBT ADMINISTRATION (CONTINUED)

Long-Term Debt

Proceeds from the acquisition of long-term debt are reported as revenues in the respective fund acquiring the debt in the year the proceeds are received. Correspondingly, debt service payments are reported as expenditures in the year payment is made by the fund making the related debt service payments.

As of December 31, 2012, the Township had \$ 21,441,126 and \$ 28,585,000 of general obligation debt outstanding in the Governmental and Business-Type Activities, respectively. See Note 6 to the financial statements for a detailed analysis of long-term debt. The following details activity related to the general obligation debt during 2012:

	<u>Governmental Activities</u>	<u>Business-Type Activities</u>
Beginning Balance at January 1, 2012	\$ 21,854,231	\$ 29,050,000
Additions	3,615,000	6,055,000
Principal Payments	<u>(4,028,105)</u>	<u>(6,520,000)</u>
Ending Balance at December 31, 2012	<u>\$ 21,441,126</u>	<u>\$ 28,585,000</u>

Budgetary Highlights

Over the course of the year, the Township's Board of Supervisors monitored actual results with budgeted results. Although actual results and budgeted results may differ due to circumstances that arise during the course of the year, the Township generally does not amend its budget after adoption.

For the year ended December 31, 2012, General Fund expenditures were \$ 60,664 below final appropriations, while actual revenues available for appropriation were \$ 115,306 below the budgeted amount.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

Several events have occurred in 2012 that will have a positive benefit on Exeter Township. Panera Bread's Land Development Plan has been approved and construction will begin in 2013. "FroYo Fun Self-Serve Frozen Yogurt Shop" has joined Exeter's family of businesses. To spur more commercial economic development to broaden the Township's commercial tax base, the nine-member Economic Development Advisory Council (EDAC), in conjunction with the Township Board of Supervisors, has been actively seeking new commercial business in the Township. The Board approved the hiring of a commercial planner which is currently underway in 2013. The EDAC has become a member of the Greater Berks County Economic Development group in order to expand its efforts and holds quarterly business breakfasts for Exeter business leaders. The Township's general tax millage for 2013 increased from 1.64 mills to 1.815 mills. Due to the overall economic climate, many revenue sources are expected to remain stagnant through 2013. However, the Township is fortunate to have a healthy General Fund balance to bridge any unexpected shortfalls. In addition, the Debt Service millage remained unchanged at .55 mills. The Fire Tax millage remained unchanged at .505 mills. The Street Light Tax and the Fire Hydrant Tax also remained unchanged.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES (CONTINUED)

The Township's current retail and service industry employment base is strong with several large employers already adding to the local economy. Some of the largest employers within the Township are as follows:

Employer	Number of Employees
Boscov's	925
Godiva Chocolatier	602
Giant Food	330
Angio Tech Surgical Specialties	283
Wal-Mart	251
Genesis Eldercare, Berkshire Center	164
Golden Living Center	143
Target	124
Lowe's	119
Home Depot	103
Redners	98

During 2013, the Township has budgeted to undertake or complete several major infrastructure and capital projects to add to the overall quality of life in the Township. These projects and the estimated costs include the following:

• Construction of Farming Ridge Park	\$ 40,000
• Improvements to Dunn Barn Community Center	82,620
• Traffic signal pre-emption public safety project	102,626
• Sewer line replacement and engineering	380,000

All of these factors were considered in preparing the Township's budget for the 2013 fiscal year. As a result, General Fund revenues are anticipated to increase .8 percent to \$ 9,203,756, while expenditures are budgeted to increase 3.3 percent to \$ 9,395,620. Other governmental fund revenues for 2013 are budgeted at \$ 2,932,617, while expenditures are budgeted for \$ 4,030,598. The excess of budgeted expenditures over revenues will be covered by the fund balances at December 31, 2012. Proprietary Fund revenues are budgeted at \$ 7,358,237, while expenditures are budgeted for \$ 7,560,105.

CONTACTING THE TOWNSHIP'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, customers, and creditors with a general overview of the Township's finances and to demonstrate the Township's accountability for the monies it receives. If you have questions about this report or need additional financial information, contact Exeter Township, 4975 DeMoss Road, Reading, PA 19606.

EXETER TOWNSHIP

**STATEMENT OF NET POSITION - MODIFIED CASH BASIS
December 31, 2012**

ASSETS	----- Primary Government -----		
	Governmental Activities	Business-Type Activities	Total
Cash:			
Unrestricted	\$ 4,017,492	\$ 3,414,823	\$ 7,432,315
Restricted	1,896,558	2,615,950	4,512,508
Certificate of deposit	-	7,000,000	7,000,000
	<hr/>	<hr/>	<hr/>
Total assets	5,914,050	13,030,773	18,944,823
	<hr/>	<hr/>	<hr/>
LIABILITIES			
Deposits held in escrow	\$ 37,653	\$ -	\$ 37,653
Advance deposit	-	78,050	78,050
	<hr/>	<hr/>	<hr/>
Total liabilities	\$ 37,653	\$ 78,050	\$ 115,703
	<hr/>	<hr/>	<hr/>
NET POSITION			
Unrestricted	4,485,209	10,336,773	14,821,982
Restricted	1,391,188	2,615,950	4,007,138
	<hr/>	<hr/>	<hr/>
Total net position	\$ 5,876,397	\$ 12,952,723	\$ 18,829,120
	<hr/>	<hr/>	<hr/>

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF ACTIVITIES - MODIFIED CASH BASIS
Year Ended December 31, 2012**

		----- Program Revenues -----	
	Expenditures	Charges for Services	Operating Grants and Contributions
Functions/Programs:			
Government:			
Governmental activities:			
General government	\$ 708,599	\$ 382,599	\$ 258,057
Public safety	5,506,280	361,312	346,702
Health and human services	35,183	-	1,597
Public works - sanitation	179,463	704,238	-
Public works - highways and streets	1,971,093	12,646	103,437
Culture and recreation	634,805	158,983	-
Community development	55,121	-	-
Debt service	4,930,171	-	65,122
Benefits	93,301	-	-
Property and casualty insurance	155,369	-	-
Capital outlay	716,390	-	527,833
Miscellaneous	173,703	-	162,867
	<hr/>	<hr/>	<hr/>
Total governmental activities	15,159,478	1,619,778	1,465,615
	<hr/>	<hr/>	<hr/>
Business-type activities:			
Sewer	12,385,232	4,861,176	-
Country Club	2,789,534	3,109,097	-
	<hr/>	<hr/>	<hr/>
Total business type activities	15,174,766	7,970,273	-
	<hr/>	<hr/>	<hr/>
Total government	\$ 30,334,244	\$ 9,590,051	\$ 1,465,615
	<hr/>	<hr/>	<hr/>

General revenues:

Taxes:

Real estate
Real estate transfer
Per capita
Earned income
Local services
Business privilege
Interest and rents
Sale of assets
Miscellaneous
Proceeds from bond issuance and bond premium
Transfers

Total general revenues and transfers

Changes in net position

Net position, beginning of year

Net position, end of year

See Notes to Financial Statements.

**Net (Expenditures) Revenue and
----- Changes in Net Assets -----**

Governmental Activities	Primary Government Business-Type Activities	Total
\$ (67,943)	\$ -	\$ (67,943)
(4,798,266)	-	(4,798,266)
(33,586)	-	(33,586)
524,775	-	524,775
(1,855,010)	-	(1,855,010)
(475,822)	-	(475,822)
(55,121)	-	(55,121)
(4,865,049)	-	(4,865,049)
(93,301)	-	(93,301)
(155,369)	-	(155,369)
(188,557)	-	(188,557)
(10,836)	-	(10,836)
<u>(12,074,085)</u>	<u>-</u>	<u>(12,074,085)</u>
-	(7,524,056)	(7,524,056)
-	319,563	319,563
<u>-</u>	<u>(7,204,493)</u>	<u>(7,204,493)</u>
<u>(12,074,085)</u>	<u>(7,204,493)</u>	<u>(19,278,578)</u>
3,676,342	-	3,676,342
253,189	-	253,189
69,684	-	69,684
3,021,920	-	3,021,920
314,950	-	314,950
523,805	-	523,805
92,686	394,106	486,792
11,489	-	11,489
244,360	-	244,360
3,623,397	6,069,064	9,692,461
270,000	(270,000)	-
<u>12,101,822</u>	<u>6,193,170</u>	<u>18,294,992</u>
27,737	(1,011,323)	(983,586)
<u>5,848,660</u>	<u>13,964,046</u>	<u>19,812,706</u>
<u>\$ 5,876,397</u>	<u>\$ 12,952,723</u>	<u>\$ 18,829,120</u>

EXETER TOWNSHIP

**STATEMENT OF ASSETS AND LIABILITIES AND FUND
BALANCES - MODIFIED CASH BASIS
GOVERNMENTAL FUNDS
December 31, 2012**

ASSETS	General Fund	Other Governmental Funds	Total Governmental Funds
Cash:			
Unrestricted	\$ 2,893,963	\$ 1,123,529	\$ 4,017,492
Restricted	<u>143,686</u>	<u>1,752,872</u>	<u>1,896,558</u>
Total assets	<u>3,037,649</u>	<u>2,876,401</u>	<u>5,914,050</u>
 LIABILITIES			
Deposits held in escrow	<u>37,653</u>	<u>-</u>	<u>37,653</u>
Total liabilities	<u>37,653</u>	<u>-</u>	<u>37,653</u>
 FUND BALANCES			
Restricted	95,615	1,295,573	1,391,188
Committed	701,783	1,580,828	2,282,611
Unassigned	<u>2,202,598</u>	<u>-</u>	<u>2,202,598</u>
Total fund balances	<u>\$ 2,999,996</u>	<u>\$ 2,876,401</u>	<u>\$ 5,876,397</u>

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS
GOVERNMENTAL FUNDS
Year Ended December 31, 2012**

	General Fund	Other Governmental Funds	Total Governmental Funds
REVENUES			
Taxes:			
Real estate	\$ 2,151,152	\$ 1,525,190	\$ 3,676,342
Real estate transfer	253,189	-	253,189
Per capita	69,684	-	69,684
Earned income	3,021,920	-	3,021,920
Local services	314,950	-	314,950
Business privilege	523,805	-	523,805
Licenses and permits	362,759	-	362,759
Fines and forfeits	133,608	-	133,608
Interest and rents	41,111	51,575	92,686
Intergovernmental revenues	799,007	666,608	1,465,615
Charges for services	1,103,549	19,862	1,123,411
Miscellaneous	239,902	4,458	244,360
	<hr/>	<hr/>	<hr/>
Total revenues	9,014,636	2,267,693	11,282,329
EXPENDITURES			
Current:			
General government	708,599	-	708,599
Public safety	4,915,801	590,479	5,506,280
Health and human services	35,183	-	35,183
Public works - sanitation	179,463	-	179,463
Public works - highways and streets	1,655,184	315,909	1,971,093
Culture and recreation	546,084	88,721	634,805
Community development	39,648	15,473	55,121
Debt service:			
Principal	273,105	109,084	382,189
Interest	116,937	818,986	935,923
Bond issuance costs	51,458	-	51,458
Benefits	93,301	-	93,301
Property and casualty insurance	155,369	-	155,369
Capital outlay	89,721	626,669	716,390
Miscellaneous	173,380	323	173,703
	<hr/>	<hr/>	<hr/>
Total expenditures	9,033,233	2,565,644	11,598,877

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS (CONTINUED)
GOVERNMENTAL FUNDS
Year Ended December 31, 2012**

	General Fund	Other Governmental Funds	Total Governmental Funds
Deficiency of revenues under expenditures	\$ (18,597)	\$ (297,951)	\$ (316,548)
OTHER FINANCING SOURCES (USES)			
Bond proceeds	3,615,000	-	3,615,000
Bond premium	8,397	-	8,397
Advance refunding of Series A of 2009 Bonds	(3,560,601)	-	(3,560,601)
Transfers in	1,814	570,763	572,577
Transfers out	(160,763)	(141,814)	(302,577)
Sale of assets	11,489	-	11,489
Total other financing sources (uses)	(84,664)	428,949	344,285
Net change in fund balances	(103,261)	130,998	27,737
Fund balances, beginning of year	3,103,257	2,745,403	5,848,660
Fund balances, end of year	\$ 2,999,996	\$ 2,876,401	\$ 5,876,397

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF NET POSITION - MODIFIED CASH BASIS
PROPRIETARY FUNDS
December 31, 2012**

ASSETS	Sewer	Country Club	Total
Cash:			
Unrestricted	\$ 2,789,565	\$ 625,258	\$ 3,414,823
Restricted	2,615,950	-	2,615,950
Certificate of deposit	7,000,000	-	7,000,000
Total assets	12,405,515	625,258	13,030,773
LIABILITIES			
Advance deposit	78,050	-	78,050
Total liabilities	78,050	-	78,050
NET POSITION			
Unrestricted	9,711,515	625,258	10,336,773
Restricted	2,615,950	-	2,615,950
Total net position	\$ 12,327,465	\$ 625,258	\$ 12,952,723

See Notes to Financial Statements.

EXETER TOWNSHIP

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN NET POSITION - MODIFIED CASH BASIS
PROPRIETARY FUNDS
Year Ended December 31, 2012**

	Sewer	Country Club	Total
OPERATING REVENUES			
Sewer charges	\$ 4,739,221	\$ -	\$ 4,739,221
Tapping fees	45,300	-	45,300
Charges for services	-	3,109,097	3,109,097
Miscellaneous	<u>76,655</u>	<u>-</u>	<u>76,655</u>
Total operating revenues	<u>4,861,176</u>	<u>3,109,097</u>	<u>\$ 7,970,273</u>
OPERATING EXPENDITURES			
Wastewater collection and treatment	2,623,314	-	2,623,314
Culture and recreation expenses	-	2,787,425	2,787,425
Capital outlay	<u>1,021,641</u>	<u>2,109</u>	<u>1,023,750</u>
Total operating expenditures	<u>3,644,955</u>	<u>2,789,534</u>	<u>6,434,489</u>
Operating income	<u>1,216,221</u>	<u>319,563</u>	<u>1,535,784</u>
NONOPERATING REVENUES (EXPENSES)			
Interest income	391,252	2,854	394,106
Fiscal agent fees	(250)	-	(250)
Debt service:			
Principal	(1,330,000)	-	(1,330,000)
Interest	(1,361,538)	-	(1,361,538)
Bond issuance costs	<u>(86,190)</u>	<u>-</u>	<u>(86,190)</u>
Total nonoperating revenues (expenses)	<u>(2,386,726)</u>	<u>2,854</u>	<u>(2,383,872)</u>
Income (loss) before other financing sources (uses)	<u>(1,170,505)</u>	<u>322,417</u>	<u>(848,088)</u>
OTHER FINANCING SOURCES (USES)			
Bond proceeds	6,055,000	-	6,055,000
Bond premium	14,064	-	14,064
Advance refunding of Series A of 2009 Bonds	(5,962,299)	-	(5,962,299)
Transfers out	<u>-</u>	<u>(270,000)</u>	<u>(270,000)</u>
Total other financing sources (uses)	<u>106,765</u>	<u>(270,000)</u>	<u>(163,235)</u>
Change in net position	<u>(1,063,740)</u>	<u>52,417</u>	<u>(1,011,323)</u>
Net position, beginning of year	<u>13,391,205</u>	<u>572,841</u>	<u>13,964,046</u>
Net position, end of year	<u>\$ 12,327,465</u>	<u>\$ 625,258</u>	<u>\$ 12,952,723</u>

See Notes to the Financial Statements.

EXETER TOWNSHIP
NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies

Nature of activity:

Exeter Township, Pennsylvania (the "Township"), founded in 1741, has an approximate population of 25,550, based on a 2010 census report, living within an area of 24.1 square miles. The Township is in the southeastern portion of the Commonwealth of Pennsylvania and is located in Berks County.

A summary of the Township's significant accounting policies follows:

The accompanying primary government financial statements conform to the modified cash basis method of accounting as applicable to governmental units. The following is a summary of the more significant accounting policies used by the Township.

A. THE FINANCIAL REPORTING ENTITY

The Township is a Pennsylvania Second Class Township which operates under a Board of Supervisors form of government. Accounting principles generally accepted in the United States of America require that the reporting entity consists of the primary government and organizations for which the primary government is financially accountable. In addition, the primary government may determine through the exercise of management's professional judgment that the inclusion of an organization that does not meet the financial accountability criteria is necessary in order to prevent the reporting entity's financial statements from being misleading. In such instances, that organization should be included as a component unit if the nature and significance of their relationship with the primary government or other component units, are such that exclusion from the financial reporting entity would render the financial reporting entity's financial statements incomplete or misleading. In evaluating how to define the reporting entity, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the above criteria. The component units, as determined under the above criteria and as discussed below, are not included in the Township's reporting entity, as these financial statements include only the activities of the primary government.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

A. THE FINANCIAL REPORTING ENTITY (CONTINUED)

INDIVIDUAL COMPONENT UNIT DISCLOSURES

Exeter Township, Berks County, Authority:

Exeter Township, Berks County, Authority (the "Authority") is governed by a five-member board appointed by the Township Board of Supervisors. Although it is legally separate from the Township, the Authority is a component unit and its primary purpose is to provide sewer utilities to the Township.

Exeter Community Library:

The Exeter Community Library (the "Library") is governed by a nine-member self-appointed board. Although it is legally separate from the Township, the Library is a component unit and its primary purpose is to provide library services to the Township.

B. BASIS OF PRESENTATION

Government-wide financial statements:

The statement of net assets and the statement of activities display information about the reporting government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues. Business-type activities are financed in whole, or in part, by fees charged to external parties for goods or services.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements:

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures. Funds are organized into two major categories: governmental and proprietary. An emphasis is placed on major funds within the governmental and proprietary categories. A fund is considered major if it is the primary operating fund of the Township or meets the following criteria:

Total assets, liabilities, revenues or expenditures of that individual governmental or enterprise fund are at least 10% of the corresponding total for all funds of that category or types, and total assets, liabilities, revenues or expenditures of the individual governmental fund or enterprise fund are at least 5% of the corresponding total for all governmental and enterprise funds combined.

The Township may also report as a major fund any fund it believes to be of particular importance to the financial statement users.

The funds of the financial reporting entity are described below:

Governmental funds:

Governmental funds are those through which most governmental functions of the Township are financed. The acquisition, use and balances of the Township's expendable financial resources and the related liabilities (except those accounted for in proprietary funds) are accounted for through governmental funds. The measurement focus is based upon determination of changes in financial position rather than upon net income determination.

The following are the Township's governmental funds:

General Fund - is the primary operating fund of the Township and is always classified as a major fund. It is used to account for and report all financial resources not accounted for or reported in another fund.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

Governmental funds (continued):

Special Revenue Funds - are used to account for and report the proceeds of specific revenue sources that are restricted, committed or assigned to expenditures for specified purposes other than debt service or capital projects. The term "proceeds of specific revenue sources" establishes that one or more specific restricted, committed or assigned revenues should be the foundation for a special revenue fund. The reporting entity includes the following special revenue funds, which are reported as nonmajor funds:

Utility Fund - is used to account for the assessment received from property owners benefiting from public street lighting and fire hydrant service and the expenditures incurred by the Township to provide these services.

Fire Fund - is used to account for revenues generated from the .505 mill assessment received from Township residents for the purpose of providing support for the Township's volunteer fire department.

Detention Pond/Storm Water Fund - is used to account for monies received from developers for the acceptance of Deeds of Dedication for detention or retention ponds within the Township.

K-9 Fund - is used to account for contributions to be used specifically for the improvement and continuation of the police K-9 program.

Park Improvement Fund - is used to account for monies received from developers to be used in the acquisition, improvement and/or maintenance of public open space areas.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

Governmental funds (continued):

Special Revenue Funds (continued):

State Liquid Fuels Highway Aid Fund - is used to account for the proceeds from the State Motor License Fund. Under the Act of June 1, 1956, P.L. 1944, No. 145, this Fund must be kept separate from all other funds and no other funds shall be commingled with this Fund. Expenditures are legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations. County liquid fuels tax payments to the local government are not accounted for in this Fund.

Capital Project Funds - are used to account for and report financial resources that are restricted, committed or assigned expenditures for capital outlays, including the acquisition or construction of major capital improvements. Capital project funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations or other governments. The reporting entity includes the following capital project funds, which are reported as nonmajor funds:

Capital Expenditure Fund - is used to account for the financial resources to be used for the acquisition of assets.

Capital Improvement Fund - is used to account for the financial resources to be used primarily for storm sewer improvements.

Golf Acquisition Fund - is used to account for the financial resources to be used to acquire and make improvements to a municipal golf course and banquet facility within the Township.

Apparatus Fund - is used to account for the financial resources to assist the fire company in purchasing equipment.

Traffic Improvement Fund - is used to account for the collection of transportation impact assessments against new developments that adversely affect the transportation facilities within the Township.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

B. BASIS OF PRESENTATION (CONTINUED)

Fund financial statements (continued):

Governmental funds (continued):

Debt Service Fund - is used to account for and report financial resources that are restricted, committed or assigned to expenditures for principal and interest (debt service) resources. This Fund includes financial resources that are being accumulated for principal and interest maturing in future years, and also includes financial resources that are legally mandated to be accounted for and reported in a debt service fund.

Proprietary funds:

Enterprise Funds - are used to account for business-like activities provided to the general public. These activities are financed primarily by user charges, and the measurement of financial activity focuses on net income measurement similar to the private-sector. The reporting entity includes the following enterprise funds, which are reported as major funds:

Sewer Fund - is used to account for the operation of the sewer system, which is operated as a public utility.

Country Club Fund - is used to account for the operation of the Reading Country Club.

C. BASIS OF ACCOUNTING AND MEASUREMENT FOCUS

Basis of accounting:

Basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the primary government financial statements.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

C. BASIS OF ACCOUNTING AND MEASUREMENT FOCUS (CONTINUED)

Modified cash basis:

The Township's policy is to prepare its financial statements on the modified cash basis under which only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned, and expenditures are generally recognized when paid rather than when the related liability is incurred. Consequently, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation, which may be material in amount, are not reflected in the accompanying financial statements, which are not intended to present the financial position, results of operations or cash flows in conformity with accounting principles generally accepted in the United States of America.

If the Township utilized the basis of accounting recognized as generally accepted, the fund financial statements for governmental funds would use the modified accrual basis of accounting, while the fund financial statements for proprietary fund types would use the accrual basis of accounting. All government-wide financial statements would be presented on the accrual basis of accounting.

Measurement focus:

The accounting and reporting treatment applied to a fund is determined by its measurement focus. Governmental funds are accounted for on a spending or "financial flow" measurement focus. Governmental fund type operating statements present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets.

Proprietary funds and nonexpendable trust funds are accounted for on a cost of services or "capital maintenance" measurement focus. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in equity.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

D. ASSETS AND LIABILITIES ACCOUNTING POLICY DISCLOSURES

Cash:

The Township considers all cash accounts that are not subject to withdrawal restrictions or penalties to be cash.

For the purpose of financial reporting, cash includes all demand and savings accounts and certificates of deposit or short-term investments with an original maturity of three months or less.

Due to and from other funds:

Interfund receivables and payables arise from interfund transactions and are recorded by all funds affected in the period in which transactions are executed.

Capital assets:

Purchased capital assets are recorded as expenditures in the governmental fund types. Proprietary fund type capital assets are recorded as expenditures in the fund in which they are utilized. Infrastructure assets consisting of certain improvements other than buildings, including roads, bridges, curbs and gutters, streets and sidewalks, drainage systems and lighting systems, are recorded as expenditures in the fund types expending the funds.

Long-term debt:

Debt proceeds from issuance of long-term debt are reported as other financing sources, and the payment of principal and interest is reported as expenditures in the fund financial statements and government-wide statements. Debt service expenditures are recognized in the period paid.

Compensated absences:

Compensated absences for vacation and sick leave are recorded when paid.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

E. EQUITY

Government-wide statements:

The Township classifies net position into the following components:

Restricted - This component of net position consists of constraints placed on net position use either by (1) external groups such as creditors, grantors, contributors or laws and regulations of other governments or (2) law through constitutional provisions or enabling legislation.

Unrestricted - This component of net position consists of net position that do not meet the definition of "restricted" or "invested in capital assets, net of related debt."

Governmental fund financial statements:

The Township classifies fund balance as follows:

Nonspendable - This classification consists of amounts that cannot be spent because they are either not in spendable form or are legally required to be maintained intact.

Restricted - This classification consists of amounts that are restricted to specific purposes either by (1) external groups such as creditors, grantors, contributors or laws and regulations of other governments or (2) law through constitutional provisions or enabling legislation. The restriction is binding unless removed with the consent of the resource provider.

Committed - This classification consists of amounts used for specific purposes imposed by formal action of the Township's highest level of decision-making authority. The commitment is binding unless removed in the same manner imposed. Formal action must occur prior to fiscal year-end; however, the amount may be determined subsequent to year-end.

Assigned - This classification consists of amounts constrained by the Township's intent to be used for specific purposes that are neither restricted nor committed.

Unassigned - This classification consists of amounts that have not been assigned to other funds and that have not been restricted, committed or assigned to specific purposes within the General Fund. The General Fund should be the only fund that reports a positive unassigned fund balance.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

F. REVENUES AND EXPENDITURE POLICY DISCLOSURES

Program revenues:

All revenues are recognized when received.

In the statement of activities, revenues that are derived directly from each activity or from parties outside the Township's taxpayers are program revenues. Amounts reported as program revenues include (1) charges to customers or applicants for goods and services or privileges provided, (2) operating grants and contributions and (3) capital grants and contributions, including special assessments.

All other governmental revenues are reported as general. All taxes are classified as general revenue even if restricted for a specific purpose.

Proprietary funds distinguish operating revenues and expenditures from nonoperating items. Operating revenues and expenditures generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the sewer fund are sewer usage charges. The Township also recognizes as operating revenues, the portion of tapping fees intended to recover the cost of connecting new customers to the sewer system. Operating expenditures of the sewer and Country Club funds include the cost of the services. All revenues and expenditures not meeting this definition are reported as nonoperating revenues and expenditures. The principal nonoperating revenues of the Township's proprietary fund are interest income and transfers in and transfers out. The principal operating revenues of the Country Club Fund are charges for services at the Country Club.

Property taxes:

The Township is permitted by state law to levy taxes up to 14 mills of assessed valuation for general purposes. State law also permits additional millage to be levied for specific purposes as defined in the law. The millage rate levied by the Township for 2012 was 2.695 mills, consisting of 1.64 mills for general purposes, .505 mills for purchase of fire apparatus and .55 mills for debt service, as established by the Board of Supervisors. Current tax collections for the Township were approximately 97% of the total tax levy.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

F. REVENUES AND EXPENDITURE POLICY DISCLOSURES (CONTINUED)

Property taxes (continued):

The Township's real estate taxes are based on assessed values established by the County's Board of Assessments. The taxes are collected by elected local tax collectors. Real estate taxes attach an enforceable lien on property when levied on March 1. A discount of 2% is applied to payments made prior to April 30. A penalty of 10% is added to the face amount of taxes paid after June 30. The County of Berks Tax Claim Bureau collects delinquent real estate taxes on behalf of itself and other taxing authorities. Return of unpaid real estate taxes to the County Tax Claim Bureau is made by January 15 of the subsequent year.

Intergovernmental revenues:

Intergovernmental revenues represent revenues received from the Commonwealth of Pennsylvania, federal agencies and local governmental units, generally to fund specific programs and are recognized when received.

Expenditures/expenses:

Expenditures and expenses are recognized when paid.

G. INTERNAL AND INTERFUND BALANCES AND ACTIVITIES

Fund financial statements:

Interfund activity, if any, within and among the governmental and proprietary fund categories is reported as follows in the fund financial statements:

Interfund services:

Sales or purchases of goods and services between funds are reported as revenues and expenditures.

Interfund reimbursements:

Repayments from funds responsible for certain expenditures to the funds that initially paid for them are not reported as reimbursements, but as adjustments to expenditures in the respective funds.

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Activity and Significant Accounting Policies (Continued)

A summary of the Township's significant accounting policies follows (continued):

G. INTERNAL AND INTERFUND BALANCES AND ACTIVITIES (CONTINUED)

Fund financial statements (continued):

Interfund transfers:

Flow of assets from one fund to another where repayment is not expected is reported as transfers in and out.

H. RECENT ACCOUNTING PRONOUNCEMENTS

In June 2011, the Governmental Accounting Standards Board (GASB) issued Statement No. 61, *The Financial Reporting Entity: Omnibus*. The objective of this Statement is to have financial reporting entity financial statements be more relevant by improving guidance for including, presenting and disclosing information about component units and equity interest transactions of a financial reporting entity. This Statement is effective for periods beginning after June 15, 2012; however, the Township early adopted this Statement in its December 31, 2012 financial statements.

In June 2011, the GASB issued Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*. The objective of this Statement is to provide guidance for reporting of deferred inflows and outflows of resources which are distinctly different from assets and liabilities. As a result of reporting these additional elements, the residual balances will be considered as net position, rather than net assets. The Township adopted this Statement in its December 31, 2012 financial statements.

Note 2. Stewardship, Compliance and Accountability

Compliance with finance-related legal and contractual provisions:

The Township had no material violations of finance-related legal and contractual provisions.

NOTES TO FINANCIAL STATEMENTS

Note 3. Deposits

The Township's available cash is invested in demand deposit accounts and a certificate of deposit. The carrying amount of cash and investments at December 31, 2012 consists of the following:

Demand deposits	\$ 11,942,621
Time deposit	7,000,000
Petty cash	<u>2,202</u>
	<u>\$ 18,944,823</u>

Reconciliation to statement of net position/balance sheet:

Cash:	
Unrestricted	\$ 7,432,315
Restricted	<u>4,512,508</u>
	11,944,823
Certificate of deposit, business-type activities	<u>7,000,000</u>
	<u>\$ 18,944,823</u>

Custodial credit risk, deposits:

Custodial credit risk is the risk that, in the event of a financial institution failure, the Township's deposits may not be returned. At December 31, 2012, the carrying amount of the Township's bank deposits was \$ 18,942,621 and the corresponding bank balances were \$ 19,117,693, of which \$ 617,463 was covered by Federal Depository Insurance. The remaining \$ 18,500,230 of deposits were exposed to custodial risk because they were uninsured and collateralized with securities held by the pledging financial institution's trust department or agent, but not in the Township's name.

NOTES TO FINANCIAL STATEMENTS

Note 4. Restricted Assets

Cash and investments whose use is limited to a specific purpose have been classified as "restricted" in the financial statements. Restricted assets at December 31, 2012 consist of the following:

Governmental activities:

General Fund:

Police equipment	\$ 89,765
Fire police	2,882
Developer escrows	36,753
Police National Night Out committee	2,968
Series of 2012 Bond Issue	11,318
K-9 Fund	2,529
State Liquid Fuels Highway Aid Fund	93,227
Capital Improvement Fund	262,944
Golf Acquisition Fund	779,812
Traffic Improvement Fund	157,061
Debt Service Fund	<u>457,299</u>

Total governmental activities 1,896,558

Business-type activities:

Sewer Fund, unspent note proceeds, Series A of 2009	2,517,305
Series of 2012 Bond Issue	<u>98,645</u>

Total business-type activities 2,615,950

\$ 4,512,508

NOTES TO FINANCIAL STATEMENTS

Note 5. Interfund Transfers and Balances

Transfers between funds for the year ended December 31, 2012 were as follows:

	Transfers In	Transfers Out
Governmental Funds:		
General Fund	\$ 1,814	\$ 160,763
Utility Fund	-	10,000
Fire Fund	-	130,000
K-9 Fund	-	1,814
Capital Expenditure Fund	160,763	-
Capital Improvement Fund	10,000	-
Apparatus Fund	130,000	-
Debt Service Fund	<u>270,000</u>	<u>-</u>
 Total Governmental Funds	 572,577	 302,577
 Proprietary Fund, Country Club Fund	 <u>-</u>	 <u>270,000</u>
	<u>\$ 572,577</u>	<u>\$ 572,577</u>

Note 6. Long-Term Debt

At December 31, 2012, long-term debt consists of the following:

	Balance Outstanding December 31, 2011	Additions	Payments	Balance Outstanding December 31, 2012
Governmental activities:				
Pennsylvania Infrastructure Investment Authority Loan, initial issue of \$ 299,193, interest due monthly at 1.387%, principal payments due monthly through February 2026	\$ 224,231	\$ -	\$ 13,105	\$ 211,126
 General Obligation Notes, Series of 2007, in the initial amount of \$ 17,810,000, interest due semiannually at rates ranging from 4.200% to 4.700%, principal due annually through August 2046	 17,660,000	 -	 45,000	 17,615,000

NOTES TO FINANCIAL STATEMENTS

Note 6. Long-Term Debt (Continued)

	Balance Outstanding December 31, 2011	Additions	Payments	Balance Outstanding December 31, 2012
Governmental activities				
(continued):				
General Obligation Notes, Series A of 2009, in the initial amount of \$ 4,316,556, interest due semiannually at rates ranging from 1.000% to 4.100%, principal due annually through July 2024	\$ 3,970,000	\$ -	\$ 3,970,000	\$ -
General Obligation Notes, Series of 2012, in the initial amount of \$ 3,615,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2024	<u>-</u>	<u>3,615,000</u>	<u>-</u>	<u>3,615,000</u>
Total governmental activities	<u>21,854,231</u>	<u>3,615,000</u>	<u>4,028,105</u>	<u>21,441,126</u>
Business-type activities:				
General Obligation Notes, Series of 2007, in the initial amount of \$ 21,380,000, interest due semiannually at rates ranging from 4.750% to 5.300%, principal due annually through July 2021	16,705,000	-	1,315,000	15,390,000
General Obligation Notes, Series A of 2009, in the initial amount of \$ 12,358,444, interest due semiannually at rates ranging from 1.000% to 4.100%, principal due annually through July 2026	12,345,000	-	5,205,000	7,140,000

NOTES TO FINANCIAL STATEMENTS

Note 6. Long-Term Debt (Continued)

	Balance Outstanding December 31, 2011	Additions	Payments	Balance Outstanding December 31, 2012
Business-type activities				
(continued):				
General Obligation Notes, Series of 2012, in the initial amount of \$ 6,055,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2026	\$ -	\$ 6,055,000	\$ -	\$ 6,055,000
Total business-type activities	<u>29,050,000</u>	<u>6,055,000</u>	<u>6,520,000</u>	<u>28,585,000</u>
Total debt	<u>\$ 50,904,231</u>	<u>\$ 9,670,000</u>	<u>\$ 10,548,105</u>	<u>\$ 50,026,126</u>

Aggregate maturities required on long-term debt at December 31, 2012 are as follows:

Governmental activities:

	Principal	Interest	Total Debt Service
2013	\$ 333,473	\$ 865,571	\$ 1,199,044
2014	338,852	879,705	1,218,557
2015	344,241	871,691	1,215,932
2016	349,641	863,566	1,213,207
2017	365,052	855,330	1,220,382
2018-2022	1,936,848	4,155,011	6,091,859
2023-2027	2,298,019	3,901,175	6,199,194
2028-2032	2,880,000	3,360,513	6,240,513
2033-2037	3,610,000	2,630,647	6,240,647
2038-2042	4,530,000	1,704,925	6,234,925
2043-2046	<u>4,455,000</u>	<u>535,330</u>	<u>4,990,330</u>
	<u>\$ 21,441,126</u>	<u>\$ 20,623,464</u>	<u>\$ 42,064,590</u>

NOTES TO FINANCIAL STATEMENTS

Note 6. Long-Term Debt (Continued)

Business-type activities:

	Principal	Interest	Total Debt Service
2013	\$ 1,480,000	\$ 1,164,578	\$ 2,644,578
2014	1,535,000	1,131,937	2,666,937
2015	1,610,000	1,055,283	2,665,283
2016	1,690,000	973,330	2,663,330
2017	1,775,000	887,085	2,662,085
2018-2022	10,480,000	2,965,183	13,445,183
2023-2026	<u>10,015,000</u>	<u>637,440</u>	<u>10,652,440</u>
	<u>\$ 28,585,000</u>	<u>\$ 8,814,836</u>	<u>\$ 37,399,836</u>

Substantially all of the Township's assets are pledged as collateral to the long-term debt.

Note 7. Fund Balance

The fund balances of the Township's governmental funds at December 31, 2012 consist of the following:

	Restricted	Committed	Unassigned	Total Fund Balance
Reported in:				
General Fund	<u>\$ 95,615</u>	<u>\$ 701,783</u>	<u>\$ 2,202,598</u>	<u>\$ 2,999,996</u>
Other governmental funds:				
Utility Fund	-	8,469	-	8,469
Fire protection	-	129,655	-	129,655
Detention pond/storm water maintenance	-	73,830	-	73,830
K-9 program	2,529	-	-	2,529
Parks	-	192,113	-	192,113
Public works, highways and streets	93,227	-	-	93,227
Debt service	-	457,299	-	457,299
Capital projects	<u>1,199,817</u>	<u>719,462</u>	<u>-</u>	<u>1,919,279</u>
	<u>1,295,573</u>	<u>1,580,828</u>	<u>-</u>	<u>2,876,401</u>
	<u>\$ 1,391,188</u>	<u>\$ 2,282,611</u>	<u>\$ 2,202,598</u>	<u>\$ 5,876,397</u>

NOTES TO FINANCIAL STATEMENTS

Note 7. Fund Balance (Continued)

Fund balance policy:

The Township established and maintains reservations of fund balance in accordance with its policy, which applies to the Township's General Fund and all governmental funds. Fund balance is composed of nonspendable, restricted, committed, assigned and unassigned amounts.

Fund balance information is used to identify the available resources to repay long-term debt, reduce property taxes, add new governmental programs, expand existing programs or enhance the financial position of the Township in accordance with policies established by the Board of Supervisors.

Spending policy:

The Township's policy is to first use restricted fund balance when expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available.

The Township's policy is to use unrestricted fund balance in the following order: committed, assigned and unassigned, when expenditure is incurred for purposes for which each of these fund balance classifications is available.

Minimum fund balance policy:

The Township has not formally adopted a minimum fund balance policy.

Committed fund balance:

The Board of Supervisors is the Township's highest level of decision-making authority. The Township has not formally adopted a policy as to the formal action that is required to be taken to establish, modify or rescind a fund balance commitment.

Assigned fund balance:

The Township has not formally adopted a policy regarding the body or official authorized to assign amounts to a specific purpose and the policy established by the governing body pursuant to which that authorization is given.

NOTES TO FINANCIAL STATEMENTS

Note 7. Fund Balance (Continued)

Reservations of fund balance:

Restricted - General Fund:

The Township's restricted fund balance in the General Fund consists of contributions from third parties and funds held which are restricted to be used on specific expenditures.

Restricted - Other governmental funds:

The Township hereby establishes the following restricted fund balance reserves in the other governmental funds:

K-9 Program Reserve - The Township's restricted fund balance in the K-9 Fund consists of contributions from third parties which are restricted for Exeter Police K-9 Unit expenses.

Highways and Streets Reserve - The Township's restricted fund balance in the State Highway Aid Fund consists of proceeds from the State Motor License Fund accounted for in the State Liquid Fuels Highway Aid Fund. Expenditure of these funds is legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations.

Capital Project Reserves - The Township's restricted fund balances in the Capital Improvement Fund and the Golf Acquisition Fund consist of unspent bond proceeds which are restricted for specific capital projects. The Township's restricted fund balance in the Traffic Improvement Fund consists of unspent grant funds and contributions from third parties restricted for expenditures for traffic improvements.

Committed - General Fund:

The Township's committed fund balance in the General Fund consists of an amount to be used for tree replacement as approved by the Board of Supervisors and contract commitments.

Committed - Other governmental funds:

The Township established the following committed fund balance reserves in the other governmental funds:

Utility Reserve - is committed as set forth by Township ordinance and consists of funds to be used for public street lighting and fire hydrant services. Revenues are generated from assessments collected from Township residents.

NOTES TO FINANCIAL STATEMENTS

Note 7. Fund Balance (Continued)

Reservations of fund balance (continued):

Committed - Other governmental funds (continued):

Fire Protection Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for support of the volunteer fire department and is generated from the .505 mill assessment received from Township residents.

Detention Pond/Storm Water Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to provide funds for the maintenance of detention ponds and storm water systems within the Township.

Park Improvement Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to collect certain fees to be used for park improvement projects within the Township.

Capital Project Reserves – Township committed fund balances in the Capital Expenditure Fund and Apparatus Fund are committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for capital projects.

Debt Service Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for the repayment of principal and interest on Township debt.

Disbursement of fund balance reserves:

No formal policy has been adopted by the Township regarding disbursement of funds within the fund balance reserves; however, disbursement is approved by the Board of Supervisors by inclusion in the approved annual budget and amendments thereto.

Annual review and determination of fund balance reserve amounts:

Compliance with the provisions of this policy shall be reviewed as a part of the annual budget adoption process and the amounts of nonspendable, restricted, committed, assigned and the minimum level of unassigned fund balance shall be determined during this process.

NOTES TO FINANCIAL STATEMENTS

Note 8. Pension Plans

The Township administers and contributes to two defined benefit pension plans: the Exeter Township Police Pension Plan and the Exeter Township Employees' Pension Plan. The assets of the plans are invested separately, and each plan's assets may be used only for the payment of benefits to the members of that plan, in accordance with the terms of the plan.

Valuation of investments:

All investments of the pension plans are reported at fair value based on quoted market values.

Plan description and funding policy:

Exeter Township Police Pension Plan:

Plan description:

The Exeter Township Police Pension Plan (the "Police Plan") provides retirement benefits, as well as death and disability benefits. All benefits vest after 12 years of service. Employees who retire at or after age 50 with 25 years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 50% of their average monthly pay, plus a service increment equal to \$ 50 per year of service in excess of 25 years of service, up to a maximum service increment of \$ 100 per month. Average monthly pay is based upon the last 36 months of employment. An option for early retirement is available for employees after completion of 20 years of service.

Contributions:

Active, covered employees are required to contribute to the Police Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Police Plan. The current rate is 15.3% of annual covered payroll. Employees currently contribute to the Police Plan at a rate of 8.0% of their compensation for 2012. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

NOTES TO FINANCIAL STATEMENTS

Note 8. Pension Plans (Continued)

Plan description and funding policy (continued):

Exeter Township Employees' Pension Plan:

Plan description:

The Exeter Township Employees' Pension Plan (the "Employees' Plan") provides retirement benefits, as well as death and disability benefits. All benefits vest at 100% after five years of service. Employees who retire at or after age 62 and completion of five years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1.75% of average monthly pay multiplied by the number of years of service. If a member was a participant prior to December 31, 1995, an additional monthly benefit is payable of \$ 10 multiplied by the number of years of service as of December 31, 1995. Average monthly pay is based upon the employee's last 36 months of W-2 earnings excluding unused vacation, sick and personal days. An option for early retirement is available for employees who reach the age of 55 and have completed 15 years of service.

Contributions:

Active, covered employees are required to contribute to the Employees' Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Employees' Plan. The current rate is 7.9% of annual covered payroll. Member contributions are currently suspended. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Annual pension cost and net pension obligation (asset):

The Township's annual pension cost and net pension obligation (asset) to the pension plans for the current year are as follows:

	Police Plan	Employees' Plan
Annual required contribution	\$ 387,491	\$ 93,998
Adjustment to annual required contribution	-	-
Annual pension cost	387,491	93,998
Contributions made	387,491	93,998
Change in net pension obligation (asset)	-	-
Net pension obligation (asset), beginning of year	-	-
Net pension obligation (asset), end of year	\$ -	\$ -

NOTES TO FINANCIAL STATEMENTS

Note 8. Pension Plans (Continued)

Annual pension cost and net pension obligation (asset) (continued):

Exeter Township Police Pension Plan:

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal actuarial cost method. The actuarial assumptions included (a) 8% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-year trend information:

Year Ended	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (Asset)
12/31/10	\$ 268,564	100%	\$ -
12/31/11	\$ 447,195	100%	\$ -
12/31/12	\$ 387,491	100%	\$ -

Exeter Township Employees' Pension Plan:

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal cost method. The actuarial assumptions included (a) 7.75% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

NOTES TO FINANCIAL STATEMENTS

Note 8. Pension Plans (Continued)

Annual pension cost and net pension obligation (asset) (continued):

Exeter Township Employees' Pension Plan (continued):

Three-year trend information:

Year Ended	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (Asset)
12/31/10	\$ 102,880	100%	\$ -
12/31/11	\$ 107,469	100%	\$ -
12/31/12	\$ 93,998	100%	\$ -

Funded status and funding progress:

The funded status of Exeter Township's Police Pension Plan as of January 1, 2011, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Liability (AAL) - Entry Age (b)	Underfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 9,759,266	\$ 11,371,131	\$ 1,611,865	86%	\$ 2,552,468	63%

The funded status of Exeter Township's Employees' Pension Plan as of January 1, 2011, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Liability (AAL) - Entry Age (b)	Underfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 787,611	\$ 1,320,042	\$ 532,431	60%	\$ 546,007	98%

NOTES TO FINANCIAL STATEMENTS

Note 8. Pension Plans (Continued)

Funded status and funding progress (continued):

The Schedules of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits. The information about the funded status is prepared using the entry age normal actuarial cost method.

Plan membership:

Membership in the pension plans as of January 1, 2011, the most recent actuarial valuation date, is comprised of the following:

	Police Plan	Employees' Plan
Active employees	29	8
Retirees and beneficiaries currently receiving benefits	11	4
Terminated employees entitled to benefits, but not yet receiving benefits	<u>1</u>	<u>4</u>
	<u>41</u>	<u>16</u>

Note 9. Central Pennsylvania Teamsters Pension Fund

The Township contributes to the Central Pennsylvania Teamsters Pension Fund, a union-sponsored, multiemployer retirement plan in accordance with negotiated labor contracts. The plan covers all of the Township's eligible union employees. Contributions to the plan are based on varying rates for hours worked by the employees. Contributions totaled \$ 185,565 for the year ended December 31, 2012.

Governmental regulations impose certain requirements relative to multiemployer plans. In the event of plan termination or employer withdrawal, an employer may be liable for a portion of the plan's unfunded vested benefits. The Township has not received information from the plan's administrators to determine its share of unfunded vested benefits. The Township does not anticipate withdrawal from the plan, nor is the Township aware of any expected plan termination.

NOTES TO FINANCIAL STATEMENTS

Note 10. Post-Employment Benefits Other than Pensions

Plan descriptions:

The Township sponsors a post-employment benefits plan that covers health and life insurance benefits for eligible retirees. Groups of retirees that are eligible for these benefits are police, teamsters and management. The plan does not issue a publicly available financial report. Benefit provisions are established and amended through negotiations between the Township and the respective union.

Funding policy and annual OPEB cost:

The Township currently funds OPEB costs as they occur. For 2012, the Township's estimated contribution to the plan was \$ 82,144 for current premiums, including the implicit rate study.

The Township's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The Township's annual OPEB cost for the current year and the related information for each plan are as follows:

Annual required contribution (ARC)	\$ 842,145
Interest on net OPEB obligation	109,391
Adjustment to the annual required contribution	<u>(149,237)</u>
Annual OPEB cost	802,299
Contributions made	<u>(82,144)</u>
Increase in net OPEB obligation	720,155
Net OPEB obligation, beginning of year	<u>2,430,905</u>
Net OPEB obligation, end of year	<u>\$ 3,151,060</u>

NOTES TO FINANCIAL STATEMENTS

Note 10. Post-Employment Benefits Other than Pensions (Continued)

Funding policy and annual OPEB cost (continued):

The Township's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation for each of the plans were as follows:

Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/2010	\$ 645,145	16%	\$ 1,685,827
12/31/2011	814,512	9	2,430,905
12/31/2012	802,299	10	3,151,060

Funded status and funding progress:

The funded status of the plan as of January 1, 2011, the most recent actuarial valuation, was as follows:

Actuarial present value at attained age (APVAA):	
Active members	\$ 11,666,727
Retired members	<u>1,100,114</u>
Total APVAA	<u>\$ 12,766,841</u>
Actuarial accrued liability (AAL):	
Active members	\$ 6,107,089
Retired members	<u>1,100,114</u>
Total AAL	<u>\$ 7,207,203</u>
Actuarial value of assets (AVA)	<u>\$ -</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 7,207,203</u>
Funded ratio	- %
Covered payroll	<u>\$ 4,995,780</u>
Unfunded actuarial accrued liability (funding excess) as a percentage of covered payroll	144%

NOTES TO FINANCIAL STATEMENTS

Note 10. Post-Employment Benefits Other than Pensions (Continued)

Funded status and funding progress (continued):

Annual required contribution (ARC):	
Normal cost	\$ 399,684
30-year amortization of UAAL	<u>442,461</u>
Total ARC	<u>\$ 842,145</u>

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required Schedules of Funding Progress presented as supplementary information provide multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial liability for benefits.

Actuarial methods and assumptions:

Projections of benefits are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between the Township and the plan members to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions are as follows:

Actuarial valuation date	January 1, 2011
Actuarial cost method	Entry age normal
Amortization method	Level dollar method
Remaining amortization period	30-year closed period
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	4.50% per annum
Projected salary increases	5.00% per annum
Healthcare inflation rate	Declining scale from 8% in 2011, decreasing by .5% each year to 5.5% in 2016.

NOTES TO FINANCIAL STATEMENTS

Note 11. Exeter Township Tax Increment Financing District

In March 2008, the Township, along with the County of Berks and the Exeter Township School District, entered into a Cooperation Agreement with the Berks County Industrial Development Authority (the "Authority"). The Authority has prepared a Tax Increment Financing (TIF) Plan referred to as the Exeter Township TIF District. The agreement sets forth the terms by which Tax Increment Revenues shall be raised from the Exeter Township TIF District and the means of financing,

Under the terms of this agreement, the taxing bodies (the Township, the County of Berks and the Exeter Township School District) will remit their respective share of the positive real estate tax increments to the Authority. The Authority will deposit these funds into the Tax Increment Fund established for this project and use these funds for repayment of debt service incurred in connection with the project. The Exeter Township TIF District began on December 1, 2007 and has a term of 20 years.

In 2012, the Township remitted \$ 55,121 to the Authority. This amount represents less than 2% of total real estate taxes collected by the Township.

At December 31, 2012, the outstanding balance was \$ 5,553,000. The Township has guaranteed the Series of 2008 Tax Incremental Financing Revenue Note issued by the Authority.

Note 12. Commitments and Contingencies

Commitments:

Capital projects:

The Township is committed to make payments on various capital construction projects in the approximate amount of \$ 609,000 at December 31, 2012.

Sewer system management:

The Township entered into an agreement with Exeter Township, Berks County, Authority for the management of Exeter Township's sewer system. Under the terms of the agreement, payments of up to \$ 60,000 from Exeter Township are due the Authority in semiannual payments of \$ 30,000 for administrative expenses through 2022, when the management agreement dated July 15, 2002 expires. For the year ended December 31, 2012, \$ 60,000 was paid to the Authority under this agreement.

NOTES TO FINANCIAL STATEMENTS

Note 12. Commitments and Contingencies (Continued)

Commitments (continued):

County of Berks Public Safety Radio System Loan:

In 2012, the Township entered into agreements with the County of Berks to finance the purchase of end-user radio hardware and accessory hardware for participation in the County-wide Public Safety Radio System. The Township issued a promissory note in the aggregate principal amount of \$ 477,690. The note shall bear interest at a rate of 0%. The Township shall pay annual installments of principal on June 1 of each year through June 1, 2019, commencing on June 1, 2013. The Township will receive the equipment in 2013.

Leases:

The Township has entered into lease agreements, as lessee, for financing the acquisition of vehicles and other equipment. The leases have expiration dates extending through 2017.

As of December 31, 2012, the future minimum lease payments are as follows:

Year Ending December 31:	
2013	\$ 58,269
2014	55,571
2015	42,547
2016	6,599
2017	<u>1,321</u>
	<u>\$ 164,307</u>

Contingencies:

Litigation:

The Township is a defendant in lawsuits that have been referred to the lawyers who represent the Township's insurance carrier. While it is not feasible to determine the outcome of these matters, in the opinion of management, any total ultimate liability would not have a material effect on the Township's financial position.

NOTES TO FINANCIAL STATEMENTS

Note 12. Commitments and Contingencies (Continued)

Contingencies (continued):

Concentration of labor:

The Township entered into a collective bargaining agreement with the Police Officers Association, effective January 1, 2005 through December 31, 2009. The Police Officers Association did not request collective bargaining, so the terms and conditions of the agreement became operative for an additional four-year period commencing January 1, 2010 through December 31, 2013. The Township also entered into a collective bargaining agreement with nonuniform employees, effective January 1, 2013 through December 31, 2014. Of the Township's total workforce, 40% is covered by the agreement with the police officers and 49% is covered by the agreement with the nonuniform employees.

Loss of a major sewer customer:

During 2012, the Township lost a major sewer customer. A new company has taken its place, however, not at the same level. The estimated annual loss in net revenue is \$ 544,000.

Note 13. Subsequent Events

The Township has evaluated subsequent events through September 4, 2013. This date is the date the financial statements were available to be issued. The following event subsequent to December 31, 2012 was noted:

In January 2013, the Township issued General Obligation Bonds, Series of 2013 in the amount of \$ 7,755,000 to advance refund the Township's remaining General Obligation Bonds, Series of 2009 and to pay issuance costs.

EXETER TOWNSHIP

SCHEDULES OF FUNDING PROGRESS

Exeter Township Police Pension Plan:

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) - Entry Age (b)</u>	<u>Underfunded AAL UAAL (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ((b-a)/c)</u>
January 1, 2007	\$ 8,255,119	\$ 8,410,658	\$ 155,539	98.2%	\$ 2,323,358	6.7%
January 1, 2009	8,211,475	10,186,585	1,975,110	80.6	2,538,835	77.8
January 1, 2011	9,759,266	11,371,131	1,611,865	85.8	2,552,468	63.1

Exeter Township Employees' Pension Plan:

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) - Entry Age (b)</u>	<u>Underfunded AAL UAAL (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ((b-a)/c)</u>
January 1, 2007	\$ 416,016	\$ 957,043	\$ 541,027	43.5%	\$ 468,822	115.4%
January 1, 2009	566,223	1,081,790	515,567	52.3	535,326	96.3
January 1, 2011	787,611	1,320,042	532,431	59.7	546,007	97.5

Exeter Township Post-Employment Benefits Other than Pensions:

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) - Entry Age (b)</u>	<u>Underfunded AAL UAAL (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ((b-a)/c)</u>
January 1, 2008	\$ -	\$ 5,314,263	\$ 5,314,263	- %	\$ 4,718,187	113.0%
January 1, 2011	-	7,207,203	7,207,203	-	4,995,780	144.0

EXETER TOWNSHIP
BUDGETARY COMPARISON SCHEDULE - MODIFIED CASH BASIS
GENERAL FUND
Year Ended December 31, 2012

	- - - Budgeted Amounts - - -		Actual	Variance with
	Original	Final	Amounts	Final Budget
REVENUES				
Taxes:				
Real estate	\$ 2,135,000	\$ 2,135,000	\$ 2,151,152	\$ 16,152
Real estate transfer	365,000	365,000	253,189	(111,811)
Per capita	72,500	72,500	69,684	(2,816)
Earned income	3,232,000	3,232,000	3,021,920	(210,080)
Local services	300,000	300,000	314,950	14,950
Business privilege	410,000	410,000	523,805	113,805
Licenses and permits	333,300	333,300	362,759	29,459
Fines and forfeits	122,500	122,500	133,608	11,108
Interest and rents	40,800	40,800	41,111	311
Intergovernmental revenues	844,225	844,225	799,007	(45,218)
Charges for services	1,187,617	1,187,617	1,103,549	(84,068)
Miscellaneous	87,000	87,000	239,902	152,902
Total revenues	9,129,942	9,129,942	9,014,636	(115,306)
EXPENDITURES				
Current:				
General government	768,874	768,874	708,599	60,275
Public safety	4,911,270	4,911,270	4,915,801	(4,531)
Health and human services	25,800	25,800	35,183	(9,383)
Public works - sanitation	200,000	200,000	179,463	20,537
Public works - highways and streets	1,657,246	1,657,246	1,655,184	2,062
Culture and recreation	567,976	567,976	546,084	21,892
Community development	40,000	40,000	39,648	352
Debt service:				
Principal	-	-	273,105	(273,105)
Interest	404,053	404,053	116,937	287,116
Bond issuance costs	-	-	51,458	(51,458)
Benefits	32,691	32,691	93,301	(60,610)
Property and casualty insurance	155,470	155,470	155,369	101
Capital outlay	125,017	125,017	89,721	35,296
Miscellaneous	205,500	205,500	173,380	32,120
Total expenditures	9,093,897	9,093,897	9,033,233	60,664
Excess (deficiency) of revenues over (under) expenditures	36,045	36,045	(18,597)	(54,642)

EXETER TOWNSHIP

**BUDGETARY COMPARISON SCHEDULE - MODIFIED CASH BASIS (CONTINUED)
GENERAL FUND
Year Ended December 31, 2012**

	----- Budgeted Amounts -----		Actual	Variance with
	Original	Final	Amounts	Final Budget
OTHER FINANCING SOURCES				
(USES)				
Bond proceeds	\$ -	\$ -	\$ 3,615,000	\$ 3,615,000
Bond premium	-	-	8,397	8,397
Advance refunding of Series A of 2009 Bonds	-	-	(3,560,601)	(3,560,601)
Transfers in	-	-	1,814	1,814
Transfers out	-	-	(160,763)	(160,763)
Sale of assets	-	-	11,489	11,489
	<hr/>	<hr/>	<hr/>	<hr/>
Total other financing sources (uses)	-	-	(84,664)	(84,664)
	<hr/>	<hr/>	<hr/>	<hr/>
Net change in fund balances	\$ 36,045	\$ 36,045	(103,261)	\$ (139,306)
	<hr/>	<hr/>	<hr/>	<hr/>
Fund balance, beginning of year			<u>3,103,257</u>	
Fund balance, end of year			<u>\$ 2,999,996</u>	

See Note to Budgetary Comparison Schedules.

EXETER TOWNSHIP

NOTE TO BUDGETARY COMPARISON SCHEDULE

Note 1. Budget Matters

The Board of Supervisors annually adopts the budget for the General, Utility, Fire, Park Improvement, State Liquid Fuels Highway Aid, Capital Expenditure, Capital Improvement, Golf Acquisition, Apparatus, Traffic Improvement, Debt Service and Sewer and Country Club Funds. Budgetary control is legally maintained at the fund level.

The Second Class Township Code provides for the modification of the budget and supplemental appropriations and transfers.

Appropriations, except open project appropriations, encumbrances and unexpended grant appropriations, lapse at the end of each fiscal year.

The budget is prepared on the same modified cash basis of accounting as applied to the governmental funds in the basic financial statements.

EXETER TOWNSHIP
COMBINING STATEMENT OF ASSETS AND FUND BALANCES - MODIFIED CASH BASIS
OTHER GOVERNMENTAL FUNDS
December 31, 2012

ASSETS	Special Revenue Funds					Capital Project Funds						Debt Service Fund	Total Other Governmental Funds
	Utility	Fire	Debris/See Pond/ Storm Water	K-9	Park Improvement	State Capital Fuels Highway Aid	Capital Expenditure	Capital Improvement	Golf Acquisition	Apparatus	Traffic Improvement		
Cash:													
Unrestricted	\$ 6,489	\$ 129,956	\$ 73,839	\$ -	\$ 192,113	\$ -	\$ 499,708	\$ -	\$ -	\$ 230,754	\$ -	\$ -	\$ 1,129,899
Restricted	-	-	-	2,929	-	96,227	-	292,944	779,812	-	197,991	497,299	1,792,872
Total assets	\$ 6,489	\$ 129,956	\$ 73,839	\$ 2,929	\$ 192,113	\$ 96,227	\$ 499,708	\$ 292,944	\$ 779,812	\$ 230,754	\$ 197,991	\$ 497,299	\$ 2,979,491
FUND BALANCES													
Restricted	\$ -	\$ -	\$ -	\$ 2,929	\$ -	\$ 96,227	\$ -	\$ 292,944	\$ 779,812	\$ -	\$ 197,991	\$ -	\$ 1,269,873
Committed	\$ 6,489	\$ 129,956	\$ 73,839	-	\$ 192,113	-	\$ 499,708	-	-	\$ 230,754	-	\$ 497,299	\$ 1,509,618
Total fund balances	\$ 6,489	\$ 129,956	\$ 73,839	\$ 2,929	\$ 192,113	\$ 96,227	\$ 499,708	\$ 292,944	\$ 779,812	\$ 230,754	\$ 197,991	\$ 497,299	\$ 2,979,491

See Notes to Financial Statements.

EXETER TOWNSHIP

COMBINED STATEMENT OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCES - MODIFIED CASH BASIS
OTHER GOVERNMENTAL FUNDS
Year Ended December 31, 2012

	Special Revenue Funds						Capital Project Funds					Debt Service Fund	Total Other Governmental Funds
	Utility	Fire	Detention Pond/ Storm Water	K-9	Park Improvement	State Liquid Fuel/ Highway Aid	Capital Expenditure	Capital Improvement	Gift Acquisition	Apparatus	Traffic Improvement		
REVENUES													
Fees, net state	\$ 283,828	\$ 832,584	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 688,976	\$ 1,828,198
Interest and rents	234	1,222	119	18	1,023	1,275	48,428	1,241	3,471	443	783	1,122	51,576
Intergovernmental revenues	-	58,148	-	-	-	878,488	-	-	-	-	-	-	988,698
Charges for services	-	-	3,808	680	18,862	-	-	-	-	-	-	-	19,892
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	4,458
Total revenues	283,822	991,858	4,127	696	20,886	889,763	48,428	1,241	3,471	443	783	690,098	2,387,883
EXPENDITURES													
Grant	-	-	-	-	-	-	-	-	-	-	-	-	-
Public safety	82,132	486,347	-	-	-	-	-	-	-	-	-	-	568,479
Public works, highways and streets	78,188	-	5,283	-	-	183,829	-	-	-	-	48,807	-	315,989
Public and recreation	-	-	-	-	65,721	-	-	-	-	-	-	-	68,721
Community development	2,178	-	-	-	-	-	-	-	-	-	-	13,267	15,473
Debt service	-	-	-	-	-	-	-	-	-	-	-	-	-
Principal	-	-	-	-	-	84,884	-	-	-	-	-	45,888	130,772
Interest	-	-	-	-	-	1,938	-	-	-	-	-	817,848	819,786
Capital Outlay	-	-	-	-	2,090	441,884	3,255	109,882	88,538	-	-	-	643,549
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	323	323
Total expenditures	172,488	486,347	5,283	-	67,721	889,845	3,255	109,882	88,538	-	48,807	878,588	2,385,844
Excess (deficiency) of revenues over (under) expenditures	31,374	197,888	(1,186)	696	14,165	(11,082)	17,173	(108,641)	(85,067)	443	(47,824)	(188,490)	(28,961)
OTHER FINANCING SOURCES (USES)													
Transfers in	-	-	-	-	-	-	188,783	10,088	-	138,088	-	278,088	577,959
Transfers out	(18,088)	(138,088)	-	(1,814)	-	-	-	-	-	-	-	-	(141,814)
Total other financing sources (uses)	(18,088)	(138,088)	-	(1,814)	-	-	188,783	10,088	-	138,088	-	278,088	436,145
Net change in fund balances	21,374	83,888	(1,186)	(1,118)	14,165	(11,217)	187,834	(98,553)	(85,067)	138,443	(47,824)	83,538	136,998
Fund balances (deficit) beginning of year	(12,866)	86,048	74,398	3,677	281,948	174,427	286,774	381,585	845,879	160,311	284,885	373,788	2,748,483
Fund balances end of year	\$ 8,408	\$ 129,855	\$ 73,212	\$ 2,559	\$ 192,113	\$ 163,210	\$ 474,608	\$ 283,032	\$ 760,812	\$ 238,754	\$ 137,061	\$ 457,326	\$ 2,885,481

See Notes to Financial Statements.

**Exeter Township,
Berks County, Pennsylvania**

**Financial Statements and
Supplementary Information**

December 31, 2013



REINSEL KUNTZ LESHER
certified public accountants & consultants

FOCUSED. ON YOU.

Exeter Township

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December 31, 2013

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REINSEL KUNTZ LESHER
Certified Public Accountants & Consultants

Independent Auditor's Report

To the Board of Supervisors
Exeter Township
Berks County, Pennsylvania

Report on the Financial Statements

We have audited the accompanying modified cash basis financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information and the related notes to the financial statements of Exeter Township (the Township), Berks County, Pennsylvania, as of and for the year ended December 31, 2013, which collectively comprise the Township's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified cash basis of accounting described in Note 2. This includes that the modified cash basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Township's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Auditor's Responsibility (continued)

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Basis for Qualified Opinion

Management has not included financial information for Exeter Township's component units, Exeter Township, Berks County, Authority and the Exeter Community Library, in the Township's financial statements. Accounting principles applicable to the Township's modified cash basis of accounting requires inclusion of the financial information of Exeter Township, Berks County, Authority and the Exeter Community Library with the financial information of the Township.

Qualified Opinion

In our opinion, except for the effects of not including financial information for the component units, Exeter Township, Berks County, Authority and the Exeter Community Library, as described in the basis for qualified opinion paragraph, the financial statements referred to above present fairly, in all material respects, the modified cash basis financial position of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of Exeter Township, Berks County, Pennsylvania, as of December 31, 2013, and the respective changes - modified cash basis financial position thereof for the year then ended in accordance with the basis of accounting described in Note 2.

Report on Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on Pages 4 to 13 and other required supplementary information on Pages 50 to 55 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Report on Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole that collectively comprise Exeter Township's basic financial statements. The supplementary information presented in the table of contents under the heading Supplementary Information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole, on the basis of accounting described in Note 2.

Basis of Accounting

We draw attention to Note 2 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted on the United States of America. Our opinion is not modified with respect to this matter.

Reinal Kuntz Leaker LLP

June 11, 2014
Wyomissing, Pennsylvania

EXETER TOWNSHIP

MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of Exeter Township's (the Township) financial performance provides an overview of the Township's financial activities for the year ended December 31, 2013, within the limitations of the Township's modified cash basis of accounting. Please read it in conjunction with the Township's financial statements that begin on page 14.

Financial Highlights

- The Township's total expenditures exceeded total revenues on the modified cash basis of accounting by \$50,534 for the year ended December 31, 2013, compared to an excess of expenditures over revenues of \$983,586 for the year ended December 31, 2012. This resulted in a decrease of total net position of .3% for the year ended December 31, 2013, compared to a decrease of 5% for the year ended December 31, 2012.
- At December 31, 2013, the Township's governmental funds reported combined ending fund balances of \$6,052,451 an increase of \$176,054 from the prior year. \$2,350,416 or 38.8% of the ending fund balance is *available for spending* at the Township's discretion (*unassigned fund balance*). The General Fund highlights are as follows:
 - The Township's General Fund had a decrease in its fund balance of \$62,117 to \$2,937,879. As part of managing the finances of the Township, a fund balance is maintained in order to provide adequate financial resources to pay for services to the citizens of the Township during periods when tax and other revenue collections are not sufficient to fund daily operating costs. This generally occurs in the first few months of each year. This enables the Township to avoid having to borrow money to cover operating expenses prior to the receipt of tax revenues, which are assessed March 1 of each year. At December 31, 2013, the unassigned fund balance of the General Fund was \$2,350,416 or 24.9% of total General Fund expenditures.
- At December 31, 2013, the Township's business-type activities reported net position of \$12,726,135, a decrease of \$226,588 from the prior year.

USING THIS ANNUAL REPORT

This annual report is presented in a format consistent with the presentation requirements of the Governmental Accounting Standards Board (GASB) Statement No. 34, as applicable to the Township's modified cash basis of accounting.

Report Components

This annual report consists of five parts as follows:

Government-Wide Financial Statements: The statement of net position – modified cash basis and the statement of activities - modified cash basis (on pages 14 and 15) provide information about the activities of the Township government-wide (or "as a whole") and present a longer-term view of the Township's finances. The statement of activities reports revenues and expenditures utilizing the modified cash basis of accounting as described in Note 2 to the financial statements.

Fund Financial Statements: Fund financial statements (starting on page 16) focus on the individual parts of the Township's government. Fund financial statements also report the Township's operations in more detail than the government-wide statements by providing information about the Township's most significant ("major") funds. For governmental funds, these statements tell how these services were financed in the short-term as well as what remains for future spending. For the proprietary funds, these statements offer information about the funds the Township operates like a business, such as the sewer fund and the country club.

Notes to the Financial Statements: The notes to the financial statements are an integral part of the government-wide and fund financial statements and provide expanded explanation and detail regarding the information reported in the statements.

Required Supplementary Information: The management's discussion and analysis (pages 4 through 13), the schedules of funding progress (page 50) and the budgetary comparison schedule (pages 51 and 52) represent financial information required by GASB to be presented. Such information provides users of this report with additional data that supplements the government-wide statements, fund financial statements and notes (referred to as "the basic financial statements").

Other Supplementary Information: This part of the annual report (starting on page 54) includes optional financial information such as combining statements for nonmajor funds (which are added together and shown in the fund financial statements in a single column). This other supplemental financial information is provided to address certain specific needs of various users of the Township's annual report.

Basis of Accounting

The Township has elected to present its financial statements on the modified cash basis of accounting. The modified cash basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America. The term "basis of accounting" is a reference to when financial events are recorded. Under the modified cash basis of accounting, only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned and expenditures are generally recognized when paid rather than when the related liability is incurred.

USING THIS ANNUAL REPORT (CONTINUED)

Basis of Accounting (Continued)

As a result of the use of the modified cash basis of accounting, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation are not recorded in these financial statements. Therefore, when reviewing the financial information and discussion within this annual report, the reader should keep in mind the limitations resulting from the use of the modified cash basis of accounting.

Reporting the Township as a Whole

The Township's Reporting Entity Presentation

This annual report includes only the primary government of the Township, which consists of all funds, organizations, institutions, agencies, departments, and offices that comprise the Township's legal entity. Accounting principles generally accepted in the United States of America require that the reporting entity include the primary government, organizations for which the primary government is financially accountable and other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define the reporting entity, we have considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the significance of their operational or financial relationships with the Township. The following component units meet the requirements for inclusion, under the above criteria, but are not included in the Township's annual report: Exeter Township, Berks County Authority and Exeter Community Library.

The Government-Wide Statement of Net Position and the Statement of Activities

The government-wide financial statements are presented on pages 14 and 15. One of the most important questions asked about the Township's finances is, "Is the Township as a whole better off or worse as a result of the year's activities?" The statement of net position - modified cash basis and the statement of activities - modified cash basis report information about the Township as a whole and about its activities in a way that helps answer this question. These statements include only the Township's assets and the related liabilities referred to above resulting from the use of the modified cash basis of accounting.

These two statements report the Township's net position and changes in them. Over time, increases or decreases in the Township's net position are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors to assess the overall health of the Township, i.e., changes in the Township's tax base, the condition of the Township's roads, etc. In addition, the limitations of the modified cash basis of accounting should be considered when analyzing the overall financial health of the Township.

USING THIS ANNUAL REPORT (CONTINUED)

Reporting the Township as a Whole (Continued)

The Government-Wide Statement of Net Position and the Statement of Activities (continued)

In the Statement of Net Position and the Statement of Activities, we divide the Township into two kinds of activities:

Governmental activities: Most of the Township's basic services are reported here, including general government services, public safety, public works, and culture and recreation. Charges for services finance a portion of the costs to provide these services. Costs not recovered through charges are financed from grants, contributions and general revenues of the Township, including real estate taxes and income taxes.

Business-type activities: The Township charges a fee to customers to help it cover all or most of the cost of certain services it provides. The Township's sewer system and country club are reported here.

Reporting the Township's Most Significant Funds

The Fund Financial Statements

The fund financial statements begin on page 16 and provide detailed information about the most significant funds - not the Township as a whole. Some funds are required to be established by state law or by bond covenants. However, the Township establishes certain other funds to help it control and manage money for particular purposes or to show that it is meeting legal responsibilities for using certain taxes, grants and other money. The Township's two kinds of funds - governmental and proprietary - under the modified cash basis of accounting use the same accounting approaches.

Governmental funds - Most of the Township's basic services are reported in governmental funds which focus on how money flows into and out of those funds and the balances remaining at year-end that are available for spending. These funds report the acquisition of capital assets and payments for debt principal as cash disbursements and not as changes to asset and debt balances. The governmental fund statements provide a detailed short-term view of the Township's general government operations and the basic services it provides. Governmental fund information helps you determine (through a review of changes to fund balance) whether there are more or fewer financial resources that can be spent in the near future to finance the Township's programs.

Proprietary funds - When the Township charges customers for the services it provides, these services are generally reported in proprietary funds. Proprietary funds are reported in the same way that all activities are reported in the statement of net position and the statement of activities.

Fiduciary funds - Fiduciary funds are often used to account for assets that are held in a trustee or fiduciary capacity such as pension plan assets, assets held per trust agreements and similar arrangements.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE

Net Position - Modified Cash Basis

The Township's Primary Government net position, resulting from modified cash basis transactions, decreased by \$50,534 or .3%, from fiscal year 2012 to 2013. Combined net position was \$18,778,586 and \$18,829,120 at December 31, 2013 and 2012, respectively. Looking at the net position of governmental and business-type activities separately, governmental activities had an increase of \$176,054 while business-type activities had a decrease of \$226,588.

A condensed summary of the Township's Statement of Net Position at December 31, 2013 and 2012 is presented below:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2013	2012	2013	2012	2013	2012
Assets						
Total Assets (Non-Capital)	<u>\$ 6,092,675</u>	<u>\$ 5,914,050</u>	<u>\$ 12,726,135</u>	<u>\$ 13,030,773</u>	<u>\$ 18,818,810</u>	<u>\$ 18,944,823</u>
Liabilities						
Deposits held in escrow	\$ 40,224	\$ 37,653	\$ -	\$ -	\$ 40,224	\$ 37,653
Advance deposit	-	-	-	78,050	-	78,050
Total liabilities	<u>\$ 40,224</u>	<u>\$ 37,653</u>	<u>\$ -</u>	<u>\$ 78,050</u>	<u>\$ 40,224</u>	<u>\$ 115,703</u>
Net Position:						
Unrestricted	4,786,268	4,485,209	10,489,477	10,336,773	15,275,745	14,821,982
Restricted	<u>1,266,183</u>	<u>1,391,188</u>	<u>2,236,658</u>	<u>2,615,950</u>	<u>3,502,841</u>	<u>4,007,138</u>
Total Net Position	<u>\$ 6,052,451</u>	<u>\$ 5,876,397</u>	<u>\$ 12,726,135</u>	<u>\$ 12,952,723</u>	<u>\$ 18,778,586</u>	<u>\$ 18,829,120</u>

Net position is shown as restricted if it can only be used for a specific purpose. Net position of \$3,502,841 and \$4,007,138 at December 31, 2013 and 2012, respectively, is restricted and the remaining net position is unrestricted at the end of the year.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Changes in Net Position – Modified Cash Basis

For the year ended December 31, 2013 and 2012, net position of the Township (resulting from modified cash basis transactions) changed as follows:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2013	2012	2013	2012	2013	2012
Program revenues:						
Charges for services	\$ 1,598,932	\$ 1,619,778	\$ 7,811,328	\$ 7,970,273	\$ 9,410,260	\$ 9,590,051
Operating grants and contributions	1,353,619	1,465,615	-	-	1,353,619	1,465,615
General revenues:						
Real estate taxes	3,924,959	3,676,342	-	-	3,924,959	3,676,342
Per capita taxes	64,934	69,684	-	-	64,934	69,684
Real estate transfer taxes	403,938	253,189	-	-	403,938	253,189
Earned income taxes	3,241,515	3,021,920	-	-	3,241,515	3,021,920
Local services tax	314,403	314,950	-	-	314,403	314,950
Business privilege tax	432,241	523,805	-	-	432,241	523,805
Interest and rents	86,776	92,686	389,032	394,106	475,808	486,792
Sale of assets	4,655	11,489	-	-	4,655	11,489
Other income	326,673	244,360	-	-	326,673	244,360
Proceeds of bond issuance and bond premium	-	3,623,397	7,802,592	6,069,064	7,802,592	9,692,461
Total revenues	\$ 11,752,645	\$ 14,917,215	\$ 16,002,952	\$ 14,433,443	\$ 27,755,597	\$ 29,350,658
Expenditures:						
General government	\$ 755,293	\$ 718,862	\$ -	\$ -	\$ 755,293	\$ 718,862
Public safety	5,606,771	5,506,280	-	-	5,606,771	5,506,280
Health and human services	25,813	35,183	-	-	25,813	35,183
Public works - sanitation	195,796	179,463	-	-	195,796	179,463
Public works - highways and streets	2,129,575	1,971,093	-	-	2,129,575	1,971,093
Culture and recreation	718,389	634,805	-	-	718,389	634,805
Community development	59,352	55,121	-	-	59,352	55,121
Debt service	1,332,407	4,930,171	-	-	1,332,407	4,930,171
Benefits	236,550	93,301	-	-	236,550	93,301
Property and casualty insurance	166,118	155,369	-	-	166,118	155,369
Capital outlay	437,605	716,390	-	-	437,605	716,390
Miscellaneous	183,268	163,440	-	-	183,268	163,440
Sewer	-	-	13,245,794	12,385,232	13,245,794	12,385,232
Country club	-	-	2,713,400	2,789,534	2,713,400	2,789,534
Total expenditures	\$ 11,846,937	\$ 15,159,478	\$ 15,959,194	\$ 15,174,766	\$ 27,806,131	\$ 30,334,244
Excess (deficiency) of revenues over (under) expenditures before transfers	\$ (94,292)	\$ (242,263)	\$ 43,758	\$ (741,323)	\$ (50,534)	\$ (983,586)
Transfers:						
Transfers	\$ 270,346	\$ 270,000	\$ (270,346)	\$ (270,000)	\$ -	\$ -
Changes in net position	\$ 176,054	\$ 27,737	\$ (226,588)	\$ (1,011,323)	\$ (50,534)	\$ (983,586)
Net position, beginning of year	5,876,397	5,848,660	12,952,723	13,964,046	18,829,120	19,812,706
Net position, end of year	\$ 6,052,451	\$ 5,876,397	\$ 12,726,135	\$ 12,952,723	\$ 18,778,586	\$ 18,829,120

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Governmental Activities

To aid in the understanding of the statement of activities, some additional explanation is given. Of particular interest is the format that is significantly different from a typical statement of revenues, expenditures and changes in fund balance. You will notice that expenditures are listed in the first column, with revenues from that particular program reported to the right. The result is a net revenue or expenditure. This type of format highlights the relative financial burden of each of the functions on the Township's taxpayers. It also identifies how much each function draws from the general revenues or if it is self-financing through fees and grants or contributions. All other governmental revenues are reported as general. It is important to note that all taxes are classified as general revenues, even if restricted for a specific purpose.

For the years ended December 31, 2013 and 2012, total revenues for governmental activities, resulting from modified cash basis transactions amounted to \$11,752,645 and \$14,917,215 respectively.

For the year ended December 31, 2013, total disbursements for governmental activities, resulting from modified cash basis transactions, amounted to \$11,846,937. Of these total disbursements, taxpayers and other general revenues funded \$8,800,094 while those directly benefiting from the program funded \$1,353,619 from operating grants and contributions and \$1,598,932 from charges for services.

Some noteworthy events occurred in 2013 that are highlighted as follows:

- The Township real estate tax for 2013 was 1.815 mills for general purposes, .505 mills for the purchase of fire apparatus and making appropriations to fire companies, and .55 mills for the purpose of debt service related to the acquisition of the Reading Country Club. Real Estate Taxes increased \$248,617 or 7% from 2012.
- Earned Income Taxes increased \$219,595 or 7% from 2012.
- Business Privilege Tax decreased \$91,564 or 17% from 2012.
- In 2012 debt service expenditures include \$3,560,601 from the advance refunding of the Series A of 2009 General Obligation Notes with the proceeds from the issuance of the Series of 2012 General Obligation Notes in the amount of \$3,615,000. This debt refinancing will save the Township approximately \$588,400 in debt service payments through July 2024.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Business-Type Activities

In reviewing the business-type activities net revenues/expenditures resulting from modified cash basis transactions, there are certain activities that need to be examined more closely. The business-type activities reported a net profit before transfers of \$43,758, transfers to other funds totaled \$270,346, resulting in a decrease in net position of \$226,588. The Sewer Fund had a \$263,053 decrease in net position. The decrease was due mainly to the use of 2009 unspent bond proceeds to pay for the 2013 capital expenditures. The Sewer Fund also advanced refunded a portion of the Series A of 2009 General Obligation Notes with the proceeds from the issuance of the Series of 2013 General Obligation Bonds. The debt refinancing will save the Township approximately \$920,900 in debt service payments through July 2024. The Country Club had a \$36,465 increase in net position. Net income before transfers was \$306,465. Transfers of \$270,000 to the debt service fund will be used to pay off the debt incurred to purchase the property.

A FINANCIAL ANALYSIS OF THE TOWNSHIP'S FUNDS

In reviewing individual funds of the Township, certain funds experienced significant changes to be considered in analyzing the Township's funds:

- Golf Acquisition Fund - During 2013, \$15,185 was expended for capital improvements to the Country Club including \$1,312 for an upgrade to the office computer system, \$1,851 for exterior painting and roof repairs and \$12,022 for improvements to the golf course.
- Park Improvement Fund - During 2013, \$81,440 was expended for improvements to the Dunn Barn Community Center. \$75,278 was expended for construction of Farming Ridge Park.
- Traffic Improvement Fund - During 2013, \$106,874 was expended for completion of the Traffic Signal Emergency Preemption project.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The acquisition of capital assets by the Township is reported as expenditures in the year of acquisition in the fund acquiring the related assets.

Long-Term Debt

Proceeds from the acquisition of long-term debt are reported as revenues in the respective fund acquiring the debt in the year the proceeds are received. Correspondingly, debt service payments are reported as expenditures in the year payment is made by the fund making the related debt service payments.

CAPITAL ASSETS AND DEBT ADMINISTRATION (CONTINUED)

Long-Term Debt (Continued)

As of December 31, 2013, the Township had \$21,517,101 and \$27,605,000 of general obligation debt outstanding in the Governmental and Business-Type Activities, respectively. See Note 7 to the financial statements for a detailed analysis of long-term debt. The following details activity related to the general obligation debt during 2013:

	Governmental Activities	Business-Type Activities
Beginning Balance at January 1, 2013	\$ 21,441,126	\$ 28,585,000
Additions	477,689	7,755,000
Principal Payments	(401,714)	(8,735,000)
Ending Balance at December 31, 2013	<u>\$ 21,517,101</u>	<u>\$ 27,605,000</u>

Budgetary Highlights

Over the course of the year, the Township's Board of Supervisors monitored actual results with budgeted results. Although actual results and budgeted results may differ due to circumstances that arise during the course of the year, the Township generally does not amend its budget after adoption.

For the year ended December 31, 2013, General Fund expenditures were \$44,518 above final appropriations, while actual revenues available for appropriation were \$252,364 above the budgeted amount.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

Several events have occurred in 2013 that will have a positive benefit on Exeter Township. The Township received a \$56,250 Early Intervention Program (EIP) Grant from the Pa Department of Community and Economic Development (DCED). The grant funds will be used toward the cost of conducting a study of the Township's overall operations and management, and to develop short and long-term fiscal strategies. The PA Economy League (PEL) was hired to conduct the study which has been completed and the Center for Excellence in Local Government through Albright College is currently conducting public input meetings. ALDI Inc.'s Land Development Plan has been approved and construction will begin in 2014. Eleven new businesses, including Panera Bread and Moe's Southwest Grill have joined Exeter's family of businesses. To spur more commercial economic development to broaden the Township's commercial tax base, the nine-member Economic Development Advisory Council (EDAC) in conjunction with the Township Board of Supervisors has been actively seeking new commercial business in the Township. The Board hired a commercial planner and the project is currently underway. The EDAC has become a member of the Greater Berks County Economic Development group in order to expand its efforts, and holds quarterly business breakfasts for Exeter business leaders. The Township's general tax millage for 2014 remained unchanged at 1.815 mills. Due to the overall economic climate many revenue sources are expected to remain stagnant through 2014. However, the Township is fortunate to have a healthy General Fund balance to bridge any unexpected shortfalls. In addition, the Debt Service millage remained unchanged at .55 mills. The Fire Tax millage remained unchanged at .505 mills. The Street Light Tax and the Fire Hydrant Tax also remained unchanged.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES (CONTINUED)

The Township's current retail and service industry employment base is strong with several large employers already adding to the local economy. Some of the largest employers within the Township are as follows:

Employer	Number of Employees
Boscov's	900
Godiva Chocolatier	663
Wal-Mart	278
Angio Tech Surgical Specialties	250
Giant Food	231
Genesis Eldercare, Berkshire Center	164
Golden Living Center	146
Target	143
Lowe's	122
Home Depot	99
Redners	95

During 2014, the Township has budgeted to undertake or complete several major infrastructure and capital projects to add to the overall quality of life in the Township. These projects and the estimated costs include the following:

• Construction of Farming Ridge Park	\$ 20,000
• Improvements to Dunn Barn Community Center	28,680
• Improvements to Reading Country Club	296,238
• Sewer line replacement and engineering	380,000

All of these factors were considered in preparing the Township's budget for the 2014 fiscal year. As a result, General Fund revenues are anticipated to increase 1.8 percent to \$9,368,826, while expenditures are budgeted to increase 2.6 percent to \$9,636,685. Other governmental fund revenues for 2014 are budgeted at \$2,883,902 while expenditures are budgeted for \$4,344,320. The excess of budgeted expenditures over revenues will be covered by the fund balances at December 31, 2013. Proprietary Fund revenues are budgeted at \$7,442,598 while expenditures are budgeted for \$7,557,509.

CONTACTING THE TOWNSHIP'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, customers and creditors with a general overview of the Township's finances and to demonstrate the Township's accountability for the monies it receives. If you have questions about this report or need additional financial information, contact Exeter Township, 4975 DeMoss Road, Reading, PA 19606.

Exeter Township**Statement of Net Position - Modified Cash Basis**

	December 31, 2013		
	Primary Government		
	Governmental Activities	Business-Type Activities	Total
Assets			
Cash:			
Unrestricted	\$ 4,244,840	\$ 3,489,477	\$ 7,734,317
Restricted	1,847,835	2,236,658	4,084,493
Certificate of deposit	-	7,000,000	7,000,000
Total Assets	6,092,675	12,726,135	18,818,810
Liabilities			
Deposits held in escrow	40,224	-	40,224
Total Liabilities	40,224	-	40,224
Net Position			
Unrestricted	4,786,268	10,489,477	15,275,745
Restricted	1,266,183	2,236,658	3,502,841
Total Net Position	\$ 6,052,451	\$ 12,726,135	\$ 18,778,586

See accompanying notes.

Exeter Township

Statement of Activities - Modified Cash Basis

Functions/Programs	Year Ended December 31, 2013					Total
	Program Revenues			Net (Expenditures) Revenue and Changes in Net Position		
	Expenditures	Charges for Services	Operating Grants and Contributions	Primary Governmental Activities	Business-Type Activities	
Governmental Activities						
General government	\$ 755,293	\$ 404,660	\$ 182,193	\$ (168,440)	\$ -	\$ (168,440)
Public safety	5,606,771	328,240	391,144	(4,887,387)	-	(4,887,387)
Health and human services	25,813	-	-	(25,813)	-	(25,813)
Public works - sanitation	185,788	887,203	-	481,407	-	481,407
Public works - highways and streets	2,129,575	21,101	217,070	(1,891,404)	-	(1,891,404)
Culture and recreation	718,389	157,728	-	(560,661)	-	(560,661)
Community development	59,352	-	-	(59,352)	-	(59,352)
Debt service	1,332,407	-	65,122	(1,267,285)	-	(1,267,285)
Benefits	236,550	-	-	(236,550)	-	(236,550)
Property and casualty insurance	166,118	-	-	(166,118)	-	(166,118)
Capital outlay	437,805	-	315,637	(121,968)	-	(121,968)
Miscellaneous	183,288	-	182,453	(815)	-	(815)
Total Governmental Activities	11,846,937	1,598,932	1,353,619	(8,894,386)	-	(8,894,386)
Business-Type Activities						
Sewer	13,245,794	4,793,668	-	-	(8,452,126)	(8,452,126)
Country Club	2,713,400	3,017,850	-	-	304,260	304,260
Total Business-Type Activities	15,959,194	7,811,326	-	-	(8,147,866)	(8,147,866)
	\$ 27,806,131	\$ 9,410,260	\$ 1,353,619	(8,894,386)	(8,147,866)	(17,042,252)
General Revenues						
Taxes						
Real estate				3,924,959	-	3,924,959
Real estate transfer				403,938	-	403,938
Per capita				64,934	-	64,934
Earned income				3,241,515	-	3,241,515
Local services				314,403	-	314,403
Business privilege				432,241	-	432,241
Interest and rents				88,776	389,032	475,808
Sale of assets				4,655	-	4,655
Miscellaneous				326,673	-	326,673
Proceeds from bond issuance and bond premium				-	7,802,592	7,802,592
Transfers				270,348	(270,348)	-
Total General Revenues and Transfers				9,070,440	7,921,276	16,991,718
Changes in Net Position				176,054	(226,588)	(50,534)
Net Position at Beginning of Year				5,876,397	12,952,723	18,829,120
Net Position at End of Year				\$ 6,052,451	\$ 12,726,135	\$ 18,778,586

See accompanying notes

Exeter Township**Statement of Assets and Liabilities and Fund Balances - Modified Cash Basis - Governmental Funds**

	December 31, 2013		
	General Fund	Other Governmental Funds	Total Governmental Funds
Assets			
Cash:			
Unrestricted	\$ 2,865,608	\$ 1,379,232	\$ 4,244,840
Restricted	112,495	1,735,340	1,847,835
Total Assets	\$ 2,978,103	\$ 3,114,572	\$ 6,092,675
Liabilities			
Deposits held in escrow	\$ 40,224	\$ -	\$ 40,224
Total Liabilities	\$ 40,224	\$ -	\$ 40,224
Fund Balances			
Restricted	\$ 73,171	\$ 1,193,012	\$ 1,266,183
Committed	514,292	1,921,560	2,435,852
Unassigned	2,350,416	-	2,350,416
Total Fund Balances	\$ 2,937,879	\$ 3,114,572	\$ 6,052,451

See accompanying notes.

Exeter Township

Statement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis Governmental Funds

	Year Ended December 31, 2013		
	General Fund	Other Governmental Funds	Total Governmental Funds
Revenues			
Taxes:			
Real estate	\$ 2,398,168	\$ 1,526,791	\$ 3,924,959
Real estate transfer	403,938	-	403,938
Per capita	64,934	-	64,934
Earned income	3,241,515	-	3,241,515
Local services	314,403	-	314,403
Business privilege	432,241	-	432,241
Licenses and permits	391,107	-	391,107
Fines and forfeits	124,535	-	124,535
Interest and rents	36,715	50,061	86,776
Intergovernmental revenues	682,873	670,746	1,353,619
Charges for services	1,050,565	32,725	1,083,290
Miscellaneous	315,126	11,547	326,673
Total Revenues	9,456,120	2,291,870	11,747,990
Expenditures			
Current:			
General government	755,293	-	755,293
Public safety	5,115,478	491,293	5,606,771
Health and human services	25,813	-	25,813
Public works - sanitation	195,796	-	195,796
Public works - highways and streets	1,724,627	404,948	2,129,575
Culture and recreation	559,670	158,719	718,389
Community development	43,879	15,473	59,352
Debt service:			
Principal	295,096	167,279	462,375
Interest	49,536	820,496	870,032
Benefits	236,550	-	236,550
Property and casualty insurance	166,118	-	166,118
Capital outlay	89,579	348,026	437,605
Miscellaneous	182,703	565	183,268
Total Expenditures	9,440,138	2,406,799	11,846,937

See accompanying notes.

Exeter Township**Statement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis
Governmental Funds (continued)**

	Year Ended December 31, 2013		
	General Fund	Other Governmental Funds	Total Governmental Funds
Excess (Deficiency) of Revenues over (under) Expenditures	\$ 15,982	\$ (114,929)	\$ (98,947)
Other Financing Sources (Uses)			
Transfers in	346	497,000	497,346
Transfers out	(83,100)	(143,900)	(227,000)
Sale of assets	4,655	-	4,655
Total Other Financing Sources (Uses)	(78,099)	353,100	275,001
Net Change in Fund Balances	(62,117)	238,171	176,054
Fund Balances at Beginning of Year	2,999,996	2,876,401	5,876,397
Fund Balances at End of Year	\$ 2,937,879	\$ 3,114,572	\$ 6,052,451

See accompanying notes.

Exeter Township**Statement of Net Position - Modified Cash Basis - Proprietary Funds**

	December 31, 2013		
	Sewer	Country Club	Total
Assets			
Cash:			
Unrestricted	\$ 2,827,754	\$ 661,723	\$ 3,489,477
Restricted	2,236,658	-	2,236,658
Certificate of deposit	7,000,000	-	7,000,000
Total Assets	\$ 12,064,412	\$ 661,723	\$ 12,726,135
Net Position			
Unrestricted	\$ 9,827,754	\$ 661,723	\$ 10,489,477
Restricted	2,236,658	-	2,236,658
Total Net Position	\$ 12,064,412	\$ 661,723	\$ 12,726,135

See accompanying notes.

Exeter Township**Statement of Revenues, Expenditures and Changes in Net Position - Modified Cash Basis
Proprietary Funds**

	Year Ended December 31, 2013		
	Sewer	Country Club	Total
Operating Revenues			
Sewer charges	\$ 4,605,217	\$ -	\$ 4,605,217
Tapping fees	110,822	-	110,822
Charges for services	-	3,017,660	3,017,660
Miscellaneous	77,629	-	77,629
Total Operating Revenues	4,793,668	3,017,660	7,811,328
Operating Expenditures			
Wastewater collection and treatment	2,606,894	-	2,606,894
Culture and recreation expenses	-	2,713,400	2,713,400
Capital outlay	288,224	-	288,224
Total Operating Expenditures	2,895,118	2,713,400	5,608,518
Operating Income	1,898,550	304,260	2,202,810
Nonoperating Revenues (Expenses)			
Interest income	386,827	2,205	389,032
Debt service:			
Principal	(1,595,000)	-	(1,595,000)
Interest	(963,961)	-	(963,961)
Bond issuance costs	(112,211)	-	(112,211)
Total Nonoperating Revenues (Expenses)	(2,284,345)	2,205	(2,282,140)
Income (Loss) before Other Financing Sources (Uses)	(385,795)	306,465	(79,330)
Other Financing Sources (Uses)			
Bond proceeds	7,755,000	-	7,755,000
Bond premium	47,592	-	47,592
Bond discount	(10,159)	-	(10,159)
Payment to refunded bond escrow agent	(7,669,345)	-	(7,669,345)
Transfers out	(346)	(270,000)	(270,346)
Total Other Financing Sources (Uses)	122,742	(270,000)	(147,258)
Change in Net Position	(263,053)	36,465	(226,588)
Net Position at Beginning of Year	12,327,465	625,258	12,952,723
Net Position at End of Year	\$ 12,064,412	\$ 661,723	\$ 12,726,135

See accompanying notes.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 1 - Nature of Activity

Exeter Township, Pennsylvania (the Township), founded in 1741, has an approximate population of 25,550, based on a 2010 census report, living within an area of 24.1 square miles. The Township is in the southeastern portion of the Commonwealth of Pennsylvania and is located in Berks County.

Note 2 - Summary of Significant Accounting Policies

The accompanying primary government financial statements conform to the modified cash basis method of accounting as applicable to governmental units. The following is a summary of the more significant accounting policies used by the Township.

The Financial Reporting Entity

The Township is a Pennsylvania Second Class Township which operates under a Board of Supervisors form of government. Accounting principles generally accepted in the United States of America require that the reporting entity consists of the primary government and organizations for which the primary government is financially accountable. In addition, the primary government may determine through the exercise of management's professional judgment that the inclusion of an organization that does not meet the financial accountability criteria is necessary in order to prevent the reporting entity's financial statements from being misleading. In such instances, that organization should be included as a component unit if the nature and significance of their relationship with the primary government or other component units, are such that exclusion from the financial reporting entity would render the financial reporting entity's financial statements incomplete or misleading. In evaluating how to define the reporting entity, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the above criteria. The component units, as determined under the above criteria and as discussed below, are not included in the Township's reporting entity, as these financial statements include only the activities of the primary government.

Individual Component Unit Disclosures

Exeter Township, Berks County, Authority

Exeter Township, Berks County, Authority (the Authority) is governed by a five-member board appointed by the Township Board of Supervisors. Although it is legally separate from the Township, the Authority is a component unit and its primary purpose is to provide sewer utilities to the Township. The Township has the ability to dissolve the Authority, which it did in January 2014.

Exeter Community Library

The Exeter Community Library (the Library) is governed by a nine-member self-appointed board. Although it is legally separate from the Township, the Library is a component unit and its primary purpose is to provide library services to Township residents. The Township considers the Library to be fiscally dependent on the Township due to the Township's annual appropriation given to the Library.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation

Government-Wide Financial Statements

The statement of net position and the statement of activities display information about the reporting government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues. Business-type activities are financed in whole, or in part, by fees charged to external parties for goods or services.

Fund Financial Statements

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures. Funds are organized into two major categories: governmental and proprietary. An emphasis is placed on major funds within the governmental and proprietary categories. A fund is considered major if it is the primary operating fund of the Township or meets the following criteria:

Total assets, liabilities, revenues or expenditures of that individual governmental or enterprise fund are at least 10% of the corresponding total for all funds of that category or types, and total assets, liabilities, revenues or expenditures of the individual governmental fund or enterprise fund are at least 5% of the corresponding total for all governmental and enterprise funds combined.

The Township may also report as a major fund any fund it believes to be of particular importance to the financial statement users.

The funds of the financial reporting entity are described below:

Governmental Funds

Governmental funds are those through which most governmental functions of the Township are financed. The acquisition, use and balances of the Township's expendable financial resources and the related liabilities (except those accounted for in proprietary funds) are accounted for through governmental funds. The measurement focus is based upon determination of changes in financial position rather than upon net income determination.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation (continued)

Fund Financial Statements (continued)

Governmental Funds (continued)

The following are the Township's governmental funds:

General Fund - is the primary operating fund of the Township and is always classified as a major fund. It is used to account for and report all financial resources not accounted for or reported in another fund.

Special Revenue Funds - are used to account for and report the proceeds of specific revenue sources that are restricted, committed or assigned to expenditures for specified purposes other than debt service or capital projects. The term "proceeds of specific revenue sources" establishes that one or more specific restricted, committed or assigned revenues should be the foundation for a special revenue fund. The reporting entity includes the following special revenue funds, which are reported as nonmajor funds:

Utility Fund - is used to account for the assessment received from property owners benefiting from public street lighting and fire hydrant service and the expenditures incurred by the Township to provide these services.

Fire Fund - is used to account for revenues generated from the .505 mill assessment received from Township residents for the purpose of providing support for the Township's volunteer fire department.

Detention Pond/Storm Water Fund - is used to account for monies received from developers for the acceptance of Deeds of Dedication for detention or retention ponds within the Township.

K-9 Fund - is used to account for contributions to be used specifically for the improvement and continuation of the police K-9 program.

Park Improvement Fund - is used to account for monies received from developers to be used in the acquisition, improvement and/or maintenance of public open space areas.

State Liquid Fuels Highway Aid Fund - is used to account for the proceeds from the State Motor License Fund. Under the Act of June 1, 1956, P.L. 1944, No. 145, this fund must be kept separate from all other funds and no other funds shall be commingled with this fund. Expenditures are legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations. County liquid fuels tax payments to the local government are not accounted for in this fund.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation (continued)

Fund Financial Statements (continued)

Governmental Funds (continued)

Capital Project Funds - are used to account for and report financial resources that are restricted, committed or assigned expenditures for capital outlays, including the acquisition or construction of major capital improvements. Capital project funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations or other governments. The reporting entity includes the following capital project funds, which are reported as nonmajor funds:

Capital Expenditure Fund - is used to account for the financial resources to be used for the acquisition of assets.

Capital Improvement Fund - is used to account for the financial resources to be used primarily for storm sewer improvements.

Golf Acquisition Fund - is used to account for the financial resources to be used to acquire and make improvements to a municipal golf course and banquet facility within the Township.

Apparatus Fund - is used to account for the financial resources to assist the fire company in purchasing equipment.

Traffic Improvement Fund - is used to account for the collection of transportation impact assessments against new developments that adversely affect the transportation facilities within the Township.

Debt Service Fund - is used to account for and report financial resources that are restricted, committed or assigned to expenditures for principal and interest (debt service) resources. This fund includes financial resources that are being accumulated for principal and interest maturing in future years and also includes financial resources that are legally mandated to be accounted for and reported in a debt service fund and is reported as a nonmajor fund.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation (continued)

Fund Financial Statements (continued)

Proprietary Funds

Enterprise Funds - are used to account for business-like activities provided to the general public. These activities are financed primarily by user charges, and the measurement of financial activity focuses on net income measurement similar to the private-sector. The reporting entity includes the following enterprise funds, which are reported as major funds:

Sewer Fund - is used to account for the operation of the sewer system, which is operated as a public utility.

Country Club Fund - is used to account for the operation of the Reading Country Club.

Basis of Accounting and Measurement Focus

Basis of Accounting

Basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the primary government financial statements.

Modified Cash Basis

The Township's policy is to prepare its financial statements on the modified cash basis under which only revenues collected and expenditures paid, deposits held in escrow and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned, and expenditures are generally recognized when paid rather than when the related liability is incurred. Consequently, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation, which may be material in amount, are not reflected in the accompanying financial statements, which are not intended to present the financial position, results of operations or cash flows in conformity with accounting principles generally accepted in the United States of America.

If the Township utilized the basis of accounting recognized as generally accepted, the fund financial statements for governmental funds would use the modified accrual basis of accounting, while the fund financial statements for proprietary fund types would use the accrual basis of accounting. All government-wide financial statements would be presented on the accrual basis of accounting.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Accounting and Measurement Focus (continued)

Measurement Focus

The accounting and reporting treatment applied to a fund is determined by its measurement focus. Governmental funds are accounted for on a spending or "financial flow" measurement focus. Governmental fund type operating statements present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets.

Proprietary funds and nonexpendable trust funds are accounted for on a cost of services or "capital maintenance" measurement focus. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in equity.

Assets and Liabilities Accounting Policy Disclosures

Cash

The Township considers all cash accounts that are not subject to withdrawal restrictions or penalties to be cash.

For the purpose of financial reporting, cash includes all demand and savings accounts and certificates of deposit or short-term investments with an original maturity of three months or less.

Due To and From Other Funds

Interfund receivables and payables arise from interfund transactions and are recorded by all funds affected in the period in which transactions are executed.

Capital Assets

Purchased capital assets are recorded as expenditures in the governmental fund types. Proprietary fund type capital assets are recorded as expenditures in the fund in which they are utilized. Infrastructure assets consisting of certain improvements other than buildings, including roads, bridges, curbs and gutters, streets and sidewalks, drainage systems and lighting systems, are recorded as expenditures in the fund types expending the funds.

Long-Term Debt

Debt proceeds from issuance of long-term debt are reported as other financing sources and the payment of principal and interest is reported as expenditures in the fund financial statements and government-wide statements. Debt service expenditures are recognized in the period paid.

Compensated Absences

Compensated absences for vacation and sick leave are recorded when paid.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Equity

Government-Wide Statements

The Township classifies net position into the following components:

Restricted - This component of net position consists of constraints placed on net position use either by (a) external groups such as creditors, grantors, contributors or laws and regulations of other governments or (b) law through constitutional provisions or enabling legislation.

Unrestricted - This component of net position consists of net position that do not meet the definition of "restricted" or "invested in capital assets, net of related debt."

Governmental Fund Financial Statements

The Township classifies fund balance as follows:

Nonspendable - This classification consists of amounts that cannot be spent because they are either not in spendable form or are legally required to be maintained intact.

Restricted - This classification consists of amounts that are restricted to specific purposes either by (a) external groups such as creditors, grantors, contributors or laws and regulations of other governments or (b) law through constitutional provisions or enabling legislation. The restriction is binding unless removed with the consent of the resource provider.

Committed - This classification consists of amounts used for specific purposes imposed by formal action of the Township's highest level of decision-making authority. The commitment is binding unless removed in the same manner imposed. Formal action must occur prior to fiscal year-end, however, the amount may be determined subsequent to year-end.

Assigned - This classification consists of amounts constrained by the Township's intent to be used for specific purposes that are neither restricted nor committed.

Unassigned - This classification consists of amounts that have not been assigned to other funds and that have not been restricted, committed or assigned to specific purposes within the General Fund. The General Fund should be the only fund that reports a positive unassigned fund balance.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Revenues and Expenditure Policy Disclosures

Program Revenues

All revenues are recognized when received.

In the statement of activities, revenues that are derived directly from each activity or from parties outside the Township's taxpayers are program revenues. Amounts reported as program revenues include (a) charges to customers or applicants for goods and services or privileges provided, (b) operating grants and contributions and (c) capital grants and contributions, including special assessments.

All other governmental revenues are reported as general. All taxes are classified as general revenue even if restricted for a specific purpose.

Proprietary funds distinguish operating revenues and expenditures from nonoperating items. Operating revenues and expenditures generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the sewer fund are sewer usage charges. The Township also recognizes as operating revenues, the portion of tapping fees intended to recover the cost of connecting new customers to the sewer system. Operating expenditures of the Sewer and Country Club Funds include the cost of the services. All revenues and expenditures not meeting this definition are reported as nonoperating revenues and expenditures. The principal nonoperating revenues of the Township's proprietary funds are interest income and transfers in and transfers out. The principal operating revenues of the Country Club Fund are charges for services at the Country Club.

Property Taxes

The Township is permitted by state law to levy taxes up to 14 mills of assessed valuation for general purposes. State law also permits additional millage to be levied for specific purposes as defined in the law. The millage rate levied by the Township for 2013 was 2.87 mills, consisting of 1.815 mills for general purposes, .505 mills for purchase of fire apparatus and .55 mills for debt service, as established by the Board of Supervisors. Current tax collections for the Township were approximately 97% of the total tax levy.

The Township's real estate taxes are based on assessed values established by the County's Board of Assessments. The taxes are collected by elected local tax collectors. Real estate taxes attach an enforceable lien on property when levied on March 1. A discount of 2% is applied to payments made prior to April 30. A penalty of 10% is added to the face amount of taxes paid after June 30. The County of Berks Tax Claim Bureau collects delinquent real estate taxes on behalf of itself and other taxing authorities. Return of unpaid real estate taxes to the County Tax Claim Bureau is made by January 15 of the subsequent year.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 2 - Summary of Significant Accounting Policies (continued)

Revenues and Expenditure Policy Disclosures (continued)

Intergovernmental Revenues

Intergovernmental revenues represent revenues received from the Commonwealth of Pennsylvania, federal agencies and local governmental units, generally to fund specific programs and are recognized when received.

Expenditures/Expenses

Expenditures and expenses are recognized when paid.

Internal and Interfund Balances and Activities

Fund Financial Statements

Interfund activity, if any, within and among the governmental and proprietary fund categories is reported as follows in the fund financial statements:

Interfund Services

Sales or purchases of goods and services between funds are reported as revenues and expenditures.

Interfund Reimbursements

Repayments from funds responsible for certain expenditures to the funds that initially paid for them are not reported as reimbursements, but as adjustments to expenditures in the respective funds.

Interfund Transfers

Flow of assets from one fund to another where repayment is not expected is reported as transfers in and out.

Recent Accounting Pronouncement

In June 2012, Governmental Accounting Standards Board (GASB) issued Statement No. 68, *Financial Reporting for Pensions*, an amendment of GASB Statement No. 27. The objective of this Statement is to improve accounting and reporting by governments for pension plans, including recognition as a liability the unfunded pension liability. This Statement is effective for periods beginning after June 15, 2014 and the Township will adopt this Statement in its December 31, 2015 financial statements.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 3 - Stewardship, Compliance and Accountability

Compliance with Finance-Related Legal and Contractual Provisions

The Township had no material violations of finance-related legal and contractual provisions.

Excess of Expenditures over Appropriations in Individual Funds

No individual fund, which was budgeted as required by the Commonwealth of Pennsylvania, contained an excess of expenditures over appropriations that was not covered by the cash balance at December 31, 2012 and the cash received for the year ended December 31, 2013. Expenditures exceeded appropriations in the General Fund by \$44,518.

Note 4 - Deposits

The Township's available cash is invested in demand deposit accounts and a certificate of deposit. The carrying amount of cash and investments at December 31, 2013 consists of the following:

Demand deposits	\$ 11,816,658
Time deposit	7,000,000
Petty cash	<u>2,152</u>
	<u>\$ 18,818,810</u>

Reconciliation to Statement of Net Position/Balance Sheet

Cash:	
Unrestricted	\$ 7,734,317
Restricted	<u>4,084,493</u>
	11,818,810
Certificate of deposit, business-type activities	<u>7,000,000</u>
	<u>\$ 18,818,810</u>

Custodial Credit Risk, Deposits

Custodial credit risk is the risk that, in the event of a financial institution failure, the Township's deposits may not be returned. At December 31, 2013, the carrying amount of the Township's bank deposits was \$18,816,658 and the corresponding bank balances were \$19,018,167, of which \$507,385 was covered by Federal Depository Insurance. The remaining \$18,510,782 of deposits were exposed to custodial risk because they were uninsured and collateralized with securities held by the pledging financial institution's trust department or agent, but not in the Township's name.

Exeter TownshipNotes to Financial Statements
December 31, 2013**Note 5 - Restricted Cash**

Cash and investments whose use is limited to a specific purpose have been classified as "restricted" in the financial statements. Restricted assets at December 31, 2013 consist of the following:

Governmental Activities

General Fund:

Police equipment	\$	64,203
Fire police		5,991
Developer escrows		39,324
Police National Night Out committee		2,977
K-9 Fund		9,687
State Liquid Fuels Highway Aid Fund		109,390
Capital Improvement Fund		264,177
Golf Acquisition Fund		766,498
Traffic Improvement Fund		43,260
Debt Service Fund		542,328

Total Governmental Activities **1,847,835**

Business-Type ActivitiesSewer Fund, unspent note proceeds, Series A
of 20092,236,658

Total Restricted Cash **\$ 4,084,493**

Note 6 - Interfund Transfers and Balances

Transfers between funds for the year ended December 31, 2013 were as follows:

	<u>Transfers In</u>	<u>Transfers Out</u>
Governmental Funds:		
General Fund	\$ 346	\$ 83,100
Utility Fund	-	10,000
Fire Fund	-	133,900
Capital Expenditure Fund	83,100	-
Capital Improvement Fund	10,000	-
Apparatus Fund	133,900	-
Debt Service Fund	270,000	-
Total Governmental Funds	<u>497,346</u>	<u>227,000</u>

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 6 - Interfund Transfers and Balances (continued)

	<u>Transfers In</u>	<u>Transfers Out</u>
Proprietary Funds:		
Sewer Fund	\$ -	\$ 346
Country Club Fund	-	270,000
	<u>-</u>	<u>270,346</u>
Total Proprietary Funds	<u>\$ 497,346</u>	<u>\$ 497,346</u>

Note 7 - Long-Term Debt

At December 31, 2013, long-term debt consists of the following:

	<u>Balance Outstanding December 31, 2012</u>	<u>Additions</u>	<u>Payments</u>	<u>Balance Outstanding December 31, 2013</u>
Governmental Activities				
Pennsylvania Infrastructure Investment Authority Loan, initial issue of \$299,193, interest due monthly at 1.387%, principal payments due monthly through February 2026	\$ 211,126	\$ -	\$ 13,473	\$ 197,653
General Obligation Notes, Series of 2007, in the initial amount of \$17,810,000, interest due semiannually at rates ranging from 4.200% to 4.700%, principal due annually through August 2046	17,615,000	-	45,000	17,570,000
General Obligation Notes, Series of 2012, in the initial amount of \$3,615,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2024	3,615,000	-	275,000	3,340,000

Exeter Township
Notes to Financial Statements
December 31, 2013

Note 7 - Long-Term Debt (continued)

	Balance Outstanding December 31, 2012	Additions	Payments	Balance Outstanding December 31, 2013
Governmental Activities				
(continued)				
Loan payable to the County of Berks, original principal amount of \$261,411, without interest, annual payments of \$37,344 through June 2019	\$ -	\$ 261,411	\$ 37,344	\$ 224,067
Loan payable to the County of Berks, original principal amount of \$31,997, without interest, annual payments of \$4,571 through June 2019	-	31,997	4,571	27,426
Loan payable to the County of Berks, original principal amount of \$17,812, without interest, annual payments of \$2,545 through June 2019	-	17,812	2,545	15,267
Loan payable to the County of Berks, original principal amount of \$120,811, without interest, annual payments of \$17,259 through June 2019	-	120,811	17,259	103,552
Loan payable to the County of Berks, original principal amount of \$17,110, without interest, annual payments of \$2,444 through June 2019	-	17,110	2,444	14,666

Exeter Township
Notes to Financial Statements
December 31, 2013

Note 7 - Long-Term Debt (continued)

	Balance Outstanding December 31, 2012	Additions	Payments	Balance Outstanding December 31, 2013
Governmental Activities				
(continued)				
Loan payable to the County of Berks, original principal amount of \$21,856, without interest, annual payments of \$3,122 through June 2019	\$ -	\$ 21,856	\$ 3,122	\$ 18,734
Loan payable to the County of Berks, original principal amount of \$6,692, without interest, annual payments of \$956 through June 2019	-	6,692	956	5,736
Total Governmental Activities	21,441,126	477,689	401,714	21,517,101
Business-Type Activities				
General Obligation Notes, Series of 2007, in the initial amount of \$21,380,000, interest due semiannually at rates ranging from 4.750% to 5.300%, principal due annually through July 2021	15,390,000	-	1,385,000	14,005,000
General Obligation Notes, Series of 2012, in the initial amount of \$6,055,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2026	6,055,000	-	75,000	5,980,000

Exeter Township
Notes to Financial Statements
December 31, 2013

Note 7 - Long-Term Debt (continued)

	Balance Outstanding December 31, 2012	Additions	Payments	Balance Outstanding December 31, 2013
Business-Type Activities (continued)				
General Obligation Bonds, Series of 2013, in the initial amount of \$7,755,000, interest due semiannually at rates ranging from .400% to 2.000%, principal due annually through July 2024	\$ -	\$ 7,755,000	\$ 135,000	\$ 7,620,000
General Obligation Notes, Series A of 2009, in the initial amount of \$12,358,444, interest due semiannually at rates ranging from 1.000% to 4.100%, principal due annually through July 2026	7,140,000	-	7,140,000	-
Total Business-Type Activities	28,585,000	7,755,000	8,735,000	27,605,000
Total Debt	\$ 50,026,126	\$ 8,232,689	\$ 9,136,714	\$ 49,122,101

Refunding of Series of 2009 General Obligation Bonds

In January 2013, the Township issued \$7,755,000 in General Obligation Bonds, Series of 2013, to advance refund \$7,140,000 of outstanding General Obligation Notes, Series of 2009, and to pay refinancing costs of approximately \$47,000. The net proceeds were used to purchase securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2009 Series Notes. As a result, the 2009 Series Notes are considered to be defeased. The Township completed the advance refunding to reduce its total future debt service payments by approximately \$920,000, and realize an economic gain of approximately \$837,000. The outstanding balance of the defeased debt as of December 31, 2013 is \$7,120,000.

Exeter Township
Notes to Financial Statements
December 31, 2013

Note 7 - Long-Term Debt (continued)

Aggregate maturities required on long-term debt at December 31, 2013 are as follows:

Governmental Activities

	<u>Principal</u>	<u>Interest</u>	<u>Total Debt Service</u>
2014	\$ 407,093	\$ 879,705	\$ 1,286,798
2015	412,482	871,691	1,284,173
2016	417,882	863,566	1,281,448
2017	433,293	855,330	1,288,623
2018	438,717	846,669	1,285,386
2019-2023	2,047,390	4,115,274	6,162,664
2024-2028	2,410,244	3,816,390	6,226,634
2029-2033	3,010,000	3,228,525	6,238,525
2034-2038	3,780,000	2,462,782	6,242,782
2039-2043	4,745,000	1,492,015	6,237,015
2044-2046	3,415,000	325,945	3,740,945
	<u>\$ 21,517,101</u>	<u>\$ 19,757,892</u>	<u>\$ 41,274,993</u>

Business-Type Activities

	<u>Principal</u>	<u>Interest</u>	<u>Total Debt Service</u>
2014	\$ 1,590,000	\$ 1,001,373	\$ 2,591,373
2015	1,665,000	924,768	2,589,768
2016	1,745,000	841,765	2,586,765
2017	1,830,000	754,540	2,584,540
2018	1,920,000	662,853	2,582,853
2019-2023	11,295,000	1,827,983	13,122,983
2024-2026	7,560,000	301,700	7,861,700
	<u>\$ 27,605,000</u>	<u>\$ 6,314,982</u>	<u>\$ 33,919,982</u>

Substantially all of the Township's assets are pledged as collateral to the long-term debt.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 8 - Fund Balance

The fund balances of the Township's governmental funds at December 31, 2013 consist of the following:

	<u>Restricted</u>	<u>Committed</u>	<u>Unassigned</u>	<u>Total Fund Balance</u>
Reported in:				
General Fund	<u>\$ 73,171</u>	<u>\$ 514,292</u>	<u>\$ 2,350,416</u>	<u>\$ 2,937,879</u>
Other governmental funds:				
Utility Fund	-	35,802	-	35,802
Fire protection	-	268,609	-	268,609
Detention pond/storm water maintenance	-	76,571	-	76,571
K-9 Program	9,687	-	-	9,687
Parks	-	67,785	-	67,785
Public works, highways and streets	109,390	-	-	109,390
Debt service	-	542,328	-	542,328
Capital projects	<u>1,073,935</u>	<u>930,465</u>	<u>-</u>	<u>2,004,400</u>
	<u>1,193,012</u>	<u>1,921,560</u>	<u>-</u>	<u>3,114,572</u>
	<u>\$ 1,266,183</u>	<u>\$ 2,435,852</u>	<u>\$ 2,350,416</u>	<u>\$ 6,052,451</u>

Fund Balance Policy

The Township established and maintains reservations of fund balance in accordance with its policy, which applies to the Township's General Fund and all governmental funds. Fund balance is composed of nonspendable, restricted, committed, assigned and unassigned amounts.

Fund balance information is used to identify the available resources to repay long-term debt, reduce property taxes, add new governmental programs, expand existing programs or enhance the financial position of the Township in accordance with policies established by the Board of Supervisors.

Spending Policy

The Township's policy is to first use restricted fund balance when expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available.

The Township's policy is to use unrestricted fund balance in the following order: committed, assigned and unassigned, when expenditure is incurred for purposes for which each of these fund balance classifications is available.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 8 - Fund Balance (continued)

Minimum Fund Balance Policy

The Township has not formally adopted a minimum fund balance policy.

Committed Fund Balance

The Board of Supervisors is the Township's highest level of decision-making authority. The Township has not formally adopted a policy as to the formal action that is required to be taken to establish, modify or rescind a fund balance commitment.

Assigned Fund Balance

The Township has not formally adopted a policy regarding the body or official authorized to assign amounts to a specific purpose and the policy established by the governing body pursuant to which that authorization is given.

Reservations of Fund Balance

Restricted - General Fund

The Township's restricted fund balance in the General Fund consists of contributions from third parties and funds held which are restricted to be used on specific expenditures.

Restricted - Other Governmental Funds

The Township hereby establishes the following restricted fund balance reserves in the other governmental funds:

K-9 Program Reserve - The Township's restricted fund balance in the K-9 Fund consists of contributions from third parties which are restricted for Exeter Police K-9 Unit expenses.

Highways and Streets Reserve - The Township's restricted fund balance in the State Highway Aid Fund consists of proceeds from the State Motor License Fund accounted for in the State Liquid Fuels Highway Aid Fund. Expenditure of these funds is legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations.

Capital Project Reserves - The Township's restricted fund balances in the Capital Improvement Fund and the Golf Acquisition Fund consist of unspent bond proceeds which are restricted for specific capital projects. The Township's restricted fund balance in the Traffic Improvement Fund consists of unspent grant funds and contributions from third parties restricted for expenditures for traffic improvements.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 8 - Fund Balance (continued)

Reservations of Fund Balance (continued)

Committed - General Fund

The Township's committed fund balance in the General Fund consists of an amount to be used for tree replacement as approved by the Board of Supervisors and contract commitments.

Committed - Other Governmental Funds

The Township established the following committed fund balance reserves in the other governmental funds:

Utility Reserve - is committed as set forth by Township ordinance and consists of funds to be used for public street lighting and fire hydrant services. Revenues are generated from assessments collected from Township residents.

Fire Protection Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for support of the volunteer fire department and is generated from the .505 mill assessment received from Township residents.

Detention Pond/Storm Water Maintenance Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to provide funds for the maintenance of detention ponds and storm water systems within the Township.

Park Improvement Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to collect certain fees to be used for park improvement projects within the Township.

Debt Service Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for the repayment of principal and interest on Township debt.

Capital Project Reserves - Township committed fund balances in the Capital Expenditure Fund and Apparatus Fund are committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for capital projects.

Disbursement of Fund Balance Reserves

No formal policy has been adopted by the Township regarding disbursement of funds within the fund balance reserves, however, disbursement is approved by the Board of Supervisors by inclusion in the approved annual budget and amendments thereto.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 8 - Fund Balance (continued)

Annual Review and Determination of Fund Balance Reserve Amounts

Compliance with the provisions of this policy shall be reviewed as a part of the annual budget adoption process and the amounts of nonspendable, restricted, committed, assigned and the minimum level of unassigned fund balance shall be determined during this process.

Note 9 - Pension Plans

The Township administers and contributes to two defined benefit pension plans: the Exeter Township Police Pension Plan and the Exeter Township Employees' Pension Plan. The assets of the plans are invested separately and each plan's assets may be used only for the payment of benefits to the members of that plan, in accordance with the terms of the plan.

Valuation of Investments

All investments of the pension plans are reported at fair value based on quoted market values.

Plan Description and Funding Policy

Exeter Township Police Pension Plan

Plan Description

The Exeter Township Police Pension Plan (the Police Plan) provides retirement benefits, as well as death and disability benefits. All benefits vest after 12 years of service. Employees who retire at or after age 50 with 25 years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 50% of their average monthly pay, plus a service increment equal to \$50 per year of service in excess of 25 years of service, up to a maximum service increment of \$100 per month. Average monthly pay is based upon the last 36 months of employment. An option for early retirement is available for employees after completion of 20 years of service.

Contributions

Active, covered employees are required to contribute to the Police Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Police Plan. The current rate is 16.9% of annual covered payroll. Employees currently contribute to the Police Plan at a rate of 8.0% of their compensation for 2013. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 9 - Pension Plans (continued)

Plan Description and Funding Policy (continued)

Exeter Township Employees' Pension Plan

Plan Description

The Exeter Township Employees' Pension Plan (the Employees' Plan) provides retirement benefits, as well as death and disability benefits. All benefits vest at 100% after five years of service. Employees who retire at or after age 62 and completion of five years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1.75% of average monthly pay multiplied by the number of years of service. If a member was a participant prior to December 31, 1995, an additional monthly benefit is payable of \$10 multiplied by the number of years of service as of December 31, 1995. Average monthly pay is based upon the employee's last 36 months of W-2 earnings excluding unused vacation, sick and personal days. An option for early retirement is available for employees who reach the age of 55 and have completed 15 years of service.

Contributions

Active, covered employees are required to contribute to the Employees' Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Employees' Plan. The current rate is 8.1% of annual covered payroll. Member contributions are currently suspended. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Plan Membership

Membership in the pension plans as of January 1, 2013, the most recent actuarial valuation date, is comprised of the following:

	<u>Police Plan</u>	<u>Employees' Plan</u>
Active employees	29	8
Retirees and beneficiaries currently receiving benefits	11	5
Terminated employees entitled to benefits, but not yet receiving benefits	<u>1</u>	<u>3</u>
	<u>41</u>	<u>16</u>

Exeter Township
Notes to Financial Statements
December 31, 2013

Note 9 - Pension Plans (continued)

Annual Pension Cost and Net Pension Obligation (Asset)

The Township's annual pension cost and net pension obligation (asset) to the pension plans for the current year are as follows:

	Police Plan	Employees' Plan
Annual required contribution	\$ 424,764	\$ 99,466
Adjustment to annual required contribution	-	-
Annual pension cost	424,764	99,466
Contributions made	424,764	99,466
Change in net pension obligation (asset)	-	-
Net pension obligation (asset) beginning of year	-	-
Net pension obligation (asset) end of year	\$ -	\$ -

Exeter Township Police Pension Plan

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal actuarial cost method. The actuarial assumptions included (a) 8% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-Year Trend Information

Year Ended	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension (Asset)
12/31/11	\$ 447,195	100%	\$ -
12/31/12	387,491	100%	-
12/31/13	424,764	100%	-

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 9 - Pension Plans (continued)

Annual Pension Cost and Net Pension Obligation (Asset) (continued)

Exeter Township Employees' Pension Plan

The annual required contribution for the current year was determined as part of the January 1, 2011 actuarial valuation using the entry age normal cost method. The actuarial assumptions included (a) 7.75% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-Year Trend Information

<u>Year Ended</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension (Asset)</u>
12/31/11	\$ 107,469	100%	\$ -
12/31/12	93,998	100%	-
12/31/13	99,466	100%	-

Funded Status and Funding Progress

The funded status of Exeter Township's Police Pension Plan as of January 1, 2013, the most recent actuarial valuation date, is as follows:

<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Liability (AAL) - Entry Age (b)</u>	<u>Unfunded AAL (UAAL) (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ((b-a)/c)</u>
\$ 11,057,915	\$ 13,363,704	\$ 2,305,789	83%	\$ 2,717,672	85%

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 9 - Pension Plans (continued)

Funded Status and Funding Progress (continued)

The funded status of Exeter Township's Employees' Pension Plan as of January 1, 2013, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 1,029,208	\$ 1,496,670	\$ 467,462	69%	\$ 556,565	84%

The Schedules of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits. The information about the funded status is prepared using the entry age normal actuarial cost method.

Note 10 - Central Pennsylvania Teamsters Pension Fund

The Township contributes to the Central Pennsylvania Teamsters Pension Fund, a union sponsored, multiemployer retirement plan in accordance with negotiated labor contracts. The plan covers all of the Township's eligible union employees. Contributions to the plan are based on varying rates for hours worked by the employees. Contributions totaled \$182,040 for the year ended December 31, 2013.

Governmental regulations impose certain requirements relative to multiemployer plans. In the event of plan termination or employer withdrawal, an employer may be liable for a portion of the plan's unfunded vested benefits. The Township has not received information from the plan's administrators to determine its share of unfunded vested benefits. The Township does not anticipate withdrawal from the plan, nor is the Township aware of any expected plan termination.

Note 11 - Post-Employment Benefits Other than Pensions

Plan Descriptions

The Township sponsors a post-employment benefits plan that covers health and life insurance benefits for eligible retirees. Groups of retirees that are eligible for these benefits are police, teamsters and management. The plan does not issue a publicly available financial report. Benefit provisions are established and amended through negotiations between the Township and the respective union.

Exeter Township**Notes to Financial Statements**

December 31, 2013

Note 11 - Post-Employment Benefits Other than Pensions (continued)**Funding Policy and Annual OPEB Cost**

The Township currently funds OPEB costs as they occur. For 2013, the Township's contribution to the plan was \$93,420 for current premiums, including the implicit rate study.

The Township's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The Township's annual OPEB cost for the current year and the related information for each plan are as follows:

Annual required contribution (ARC)	\$ 842,145
Interest on net OPEB obligation	141,798
Adjustment to the annual required contribution	<u>(193,448)</u>
Annual OPEB cost	790,495
Contributions made	<u>(93,420)</u>
Increase in net OPEB obligation	697,075
Net OPEB obligation at beginning of year	<u>3,151,060</u>
Net OPEB obligation at end of year	<u>\$ 3,848,135</u>

The Township's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation for each of the plans were as follows:

Year Ended	Annual OPEB Cost (APC)	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/11	\$ 814,512	9%	\$ 2,430,905
12/31/12	802,299	10%	3,151,060
12/31/13	790,495	12%	3,848,135

Funded Status and Funding Progress

The funded status of the plan as of January 1, 2011, the most recent actuarial valuation, was as follows:

Actuarial present value at attained age (APVAA):	
Active members	\$ 11,666,727
Retired members	<u>1,100,114</u>
Total APVAA	<u>\$ 12,766,841</u>

Exeter TownshipNotes to Financial Statements
December 31, 2013**Note 11 - Post-Employment Benefits Other than Pensions (continued)****Funded Status and Funding Progress (continued)**

Actuarial accrued liability (AAL):	
Active members	\$ 6,107,089
Retired members	<u>1,100,114</u>
Total AAL	<u>\$ 7,207,203</u>
Actuarial value of assets (AVA)	<u>\$ -</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 7,207,203</u>
Funded ratio	<u>-%</u>
Covered payroll	<u>\$ 4,995,780</u>
Unfunded actuarial accrued liability (funding excess) as a percentage of covered payroll	<u>144%</u>
Annual required contribution (ARC):	
Normal cost	\$ 399,684
30-year amortization of UAAL	<u>442,461</u>
Total ARC	<u>\$ 842,145</u>

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required Schedules of Funding Progress presented as supplementary information provide multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial liability for benefits.

Exeter Township

Notes to Financial Statements

December 31, 2013

Note 11 - Post-Employment Benefits Other than Pensions (continued)

Actuarial Methods and Assumptions

Projections of benefits are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between the Township and the plan members to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions are as follows:

Actuarial valuation date	January 1, 2011
Actuarial cost method	Entry age normal
Amortization method	Level dollar method
Remaining amortization period	30-year closed period
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	4.50% per annum
Projected salary increases	5.00% per annum
Healthcare inflation rate	Declining scale from 8% in 2011, decreasing by .5% each year to 5.5% in 2016.

Note 12 - Exeter Township Tax Increment Financing District

In March 2008, the Township, along with the County of Berks and the Exeter Township School District, entered into a Cooperation Agreement with the Berks County Industrial Development Authority (the Authority). The Authority has prepared a Tax Increment Financing (TIF) Plan referred to as the Exeter Township TIF District. The agreement sets forth the terms by which Tax Increment Revenues shall be raised from the Exeter Township TIF District and the means of financing.

Under the terms of this agreement, the taxing bodies (the Township, the County of Berks and the Exeter Township School District) will remit their respective share of the positive real estate tax increments to the Authority. The Authority will deposit these funds into the Tax Increment Fund established for this project and use these funds for repayment of debt service incurred in connection with the project. The Exeter Township TIF District began on December 1, 2007 and has a term of 20 years.

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 12 - Exeter Township Tax Increment Financing District (continued)

In 2013, the Township remitted \$59,352 to the Authority. This amount represents less than 2% of total real estate taxes collected by the Township.

At December 31, 2013, the outstanding balance was \$5,282,000. The Township has guaranteed the Series of 2008 Tax Incremental Financing Revenue Note issued by the Authority.

Note 13 - Commitments and Contingencies

Commitments

Capital Projects

The Township is committed to make payments on various capital construction projects in the approximate amount of \$218,000 at December 31, 2013.

Recycling Contract

In 2011, the Township entered into an agreement for the processing and marketing of recycling materials. The contract is for a term of three years beginning January 1, 2012 and ending December 31, 2014. Minimum payments under this agreement for the year ending December 31, 2014 were \$212,134.

Sewer System Management

The Township entered into an agreement with Exeter Township, Berks County, Authority for the management of Exeter Township's Sewer System. Under the terms of the agreement, payments of up to \$60,000 from Exeter Township are due the Authority in semiannual payments of \$30,000 for administrative expenses through 2022, when the management agreement dated July 15, 2002 expires. For the year ended December 31, 2013, \$40,000 was paid to the Authority under this agreement.

Leases

The Township has entered into lease agreements, as lessee, for financing the acquisition of vehicles and other equipment. The leases have expiration dates extending through 2017.

As of December 31, 2013, the future minimum lease payments are as follows for the year ending December 31:

2014	\$	99,671
2015		86,647
2016		50,700
2017		4,286
2018		2,122
		<hr/>
	\$	<u>243,426</u>

Exeter Township

Notes to Financial Statements
December 31, 2013

Note 13 - Commitments and Contingencies (continued)

Contingencies

Litigation

The Township is a defendant in lawsuits that have been referred to the lawyers who represent the Township's insurance carrier. While it is not feasible to determine the outcome of these matters, in the opinion of management, any total ultimate liability would not have a material effect on the Township's financial position.

Concentration of Labor

The Township entered into a collective bargaining agreement with the Police Officers Association, effective January 1, 2014 through December 31, 2016. The Township also entered into a collective bargaining agreement with nonuniform employees, effective January 1, 2013 through December 31, 2014. Of the Township's total workforce, 40% is covered by the agreement with the police officers and 49% is covered by the agreement with the nonuniform employees.

Note 14 - Subsequent Events

The Township has evaluated subsequent events through June 11, 2014. This date is the date the financial statements were available to be issued. The following event subsequent to December 31, 2013 was noted:

In January 2014, the Township ordered the dissolution of the Exeter Township, Berks County, Authority.

Exeter Township

Schedules of Funding Progress

Exeter Township Police Pension Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2009	\$ 8,211,475	\$ 10,186,585	\$ 1,975,110	80.6%	\$ 2,538,835	77.8%
January 1, 2011	9,759,266	11,371,131	1,611,865	85.8%	2,562,468	63.1%
January 1, 2013	11,057,915	13,363,704	2,305,789	82.7%	2,717,672	84.8%

Exeter Township Employees' Pension Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2009	\$ 566,223	\$ 1,081,790	\$ 515,567	52.3%	\$ 535,326	96.3%
January 1, 2011	787,611	1,320,042	532,431	59.7%	546,007	97.5%
January 1, 2013	1,029,208	1,496,670	467,462	68.8%	556,565	84.0%

Exeter Township Post-Employment Benefits Other than Pensions

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2008	\$ -	\$ 5,314,263	\$ 5,314,263	-	\$ 4,718,187	113.0%
January 1, 2011	-	7,207,203	7,207,203	-	4,995,780	144.0%

Exeter Township**Budgetary Comparison Schedule - Modified Cash Basis - General Fund**

	Year Ended December 31, 2013			
	Budgeted Amounts		Actual Amounts	Variance with Final Budget
	Original	Final		
Revenues				
Taxes:				
Real estate	\$ 2,437,391	\$ 2,437,391	\$ 2,398,168	\$ (39,223)
Real estate transfer	240,000	240,000	403,938	163,938
Per capita	72,090	72,090	64,934	(7,156)
Earned income	3,055,000	3,055,000	3,241,515	186,515
Local services	311,000	311,000	314,403	3,403
Business privilege	475,000	475,000	432,241	(42,759)
Licenses and permits	358,350	358,350	391,107	32,757
Fines and forfeits	127,640	127,640	124,535	(3,105)
Interest and rents	41,484	41,484	36,715	(4,769)
Intergovernmental revenues	718,725	718,725	682,873	(35,852)
Charges for services	1,229,076	1,229,076	1,050,565	(178,511)
Miscellaneous	138,000	138,000	315,126	177,126
Total Revenues	9,203,756	9,203,756	9,456,120	252,364
Expenditures				
Current:				
General government	773,198	773,198	755,293	17,905
Public safety	5,244,809	5,244,809	5,115,478	129,331
Health and human services	24,900	24,900	25,813	(913)
Public works - sanitation	200,000	200,000	195,796	4,204
Public works - highways and streets	1,715,198	1,715,198	1,724,627	(9,429)
Culture and recreation	568,886	568,886	559,670	9,216
Community development	40,000	40,000	43,879	(3,879)
Debt service:				
Principal	-	-	295,096	(295,096)
Interest	338,010	338,010	49,536	288,474
Benefits	38,466	38,466	236,550	(198,084)
Property and casualty insurance	159,895	159,895	166,118	(6,223)
Capital outlay	122,008	122,008	89,579	32,429
Miscellaneous	170,250	170,250	182,703	(12,453)
Total Expenditures	9,395,620	9,395,620	9,440,138	(44,518)
Excess (Deficiency) of Revenues over (under) Expenditures	(191,864)	(191,864)	15,982	207,846

Exeter Township**Budgetary Comparison Schedule - Modified Cash Basis - General Fund (continued)**

	Year Ended December 31, 2013			
	Budgeted Amounts		Actual Amounts	Variance with Final Budget
	Original	Final		
Other Financing Sources (Uses)				
Transfers in	\$ -	\$ -	\$ 346	\$ 346
Transfers out	-	-	(83,100)	(83,100)
Sale of assets	-	-	4,655	4,655
Total Other Financing Sources (Uses)	-	-	(78,099)	(78,099)
Net Change in Fund Balances	<u>\$ (191,864)</u>	<u>\$ (191,864)</u>	(62,117)	<u>\$ 129,747</u>
Fund Balance at Beginning of Year			<u>2,999,996</u>	
Fund Balance at End of Year			<u>\$ 2,937,879</u>	

Exeter Township

Note to Budgetary Comparison Schedule
December 31, 2013

Note 1 - Budget Matters

The Board of Supervisors annually adopts the budget for the General, Utility, Fire, Park Improvement, State Liquid Fuels Highway Aid, Capital Expenditure, Capital Improvement, Golf Acquisition, Apparatus, Traffic Improvement, Debt Service, Sewer and Country Club Funds. Budgetary control is legally maintained at the fund level.

The Second Class Township Code provides for the modification of the budget and supplemental appropriations and transfers.

Appropriations, except open project appropriations, encumbrances and unexpended grant appropriations, lapse at the end of each fiscal year.

The budget is prepared on the same modified cash basis of accounting as applied to the governmental funds in the basic financial statements.

Exeter Township

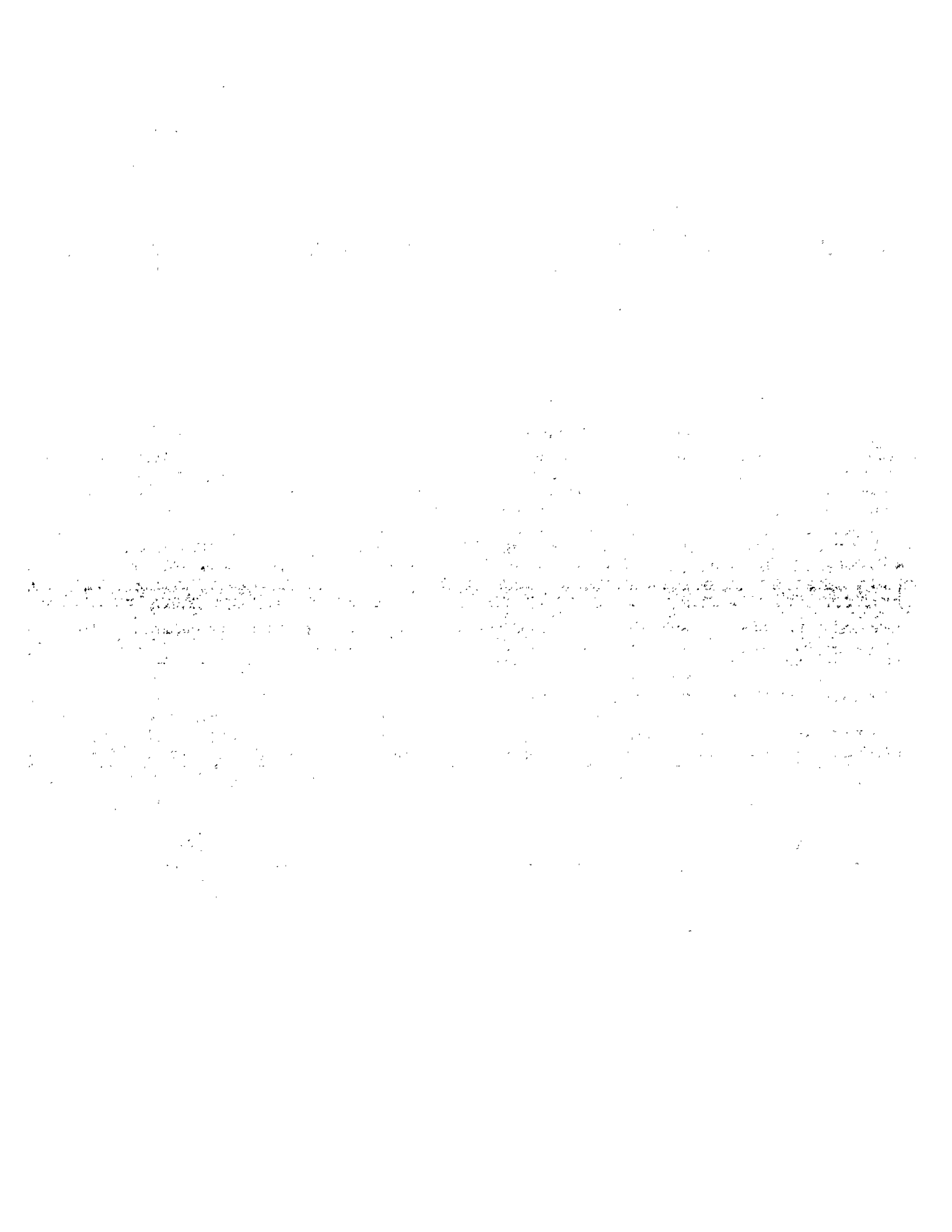
Combining Statement of Assets and Fund Balances - Modified Cash Basis - Other Governmental Funds

	December 31, 2013												
	Special Revenue Funds					Capital Project Funds						Debt Service Fund	Total Other Governmental Funds
	Utility	Fire	Detention Pond/ Storm Water	K-9	Park Improvement	State Liquid Fuels Highway Aid	Capital Expenditures	Capital Improvement	Golf Acquisition	Apparatus	Traffic Improvement		
Assets													
Cash													
Unrestricted	\$ 35,902	\$ 288,908	\$ 76,571	\$ -	\$ 67,785	\$ -	\$ 585,077	\$ -	\$ -	\$ 365,388	\$ -	\$ -	\$ 1,378,232
Restricted	-	-	-	6,887	-	100,390	-	284,177	768,488	-	43,280	542,328	1,738,340
Total Assets	\$ 35,902	\$ 288,908	\$ 76,571	\$ 6,887	\$ 67,785	\$ 100,390	\$ 585,077	\$ 284,177	\$ 768,488	\$ 365,388	\$ 43,280	\$ 542,328	\$ 3,114,572
Fund Balances													
Restricted	\$ -	\$ -	\$ -	\$ 9,847	\$ -	\$ 100,390	\$ -	\$ 284,177	\$ 768,488	\$ -	\$ 43,280	\$ -	\$ 1,193,012
Committed	35,902	288,908	76,571	-	67,785	-	585,077	-	-	365,388	-	542,328	1,921,560
Total Fund Balances	\$ 35,902	\$ 288,908	\$ 76,571	\$ 9,847	\$ 67,785	\$ 100,390	\$ 585,077	\$ 284,177	\$ 768,488	\$ 365,388	\$ 43,280	\$ 542,328	\$ 3,114,572

Exeter Township

Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis - Other Governmental Funds

	Year Ended December 31, 2013												
	Special Revenue Funds					Capital Project Funds					Debt Service Fund	Total Other Governmental Funds	
	Utility	Fire	Detention Pond/ Storm Water	K-9	Park Improvement	State Liquid Fuels Highway Aid	Capital Expenditure	Capital Improvement	Golf Acquisition	Apparatus			Traffic Improvement
Revenues													
Taxes, real estate	\$ 205,278	\$ 632,587	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 888,848	\$ 1,528,791
Interest and rents	186	1,285	238	21	416	987	41,638	812	2,480	734	318	848	50,081
Intergovernmental revenues	-	72,817	-	-	-	587,829	-	-	-	-	-	-	670,746
Charges for services	-	-	-	-	32,725	-	-	-	-	-	-	-	32,725
Miscellaneous	75	-	2,503	7,137	-	-	-	421	1,411	-	-	-	11,547
Total Revenues	205,540	708,700	2,741	7,158	33,141	588,828	41,638	1,233	3,871	734	318	889,892	2,291,870
Expenditures													
Current													
Public safety	77,081	414,212	-	-	-	-	-	-	-	-	-	-	491,293
Public works - highways and streets	88,926	-	-	-	-	201,804	-	-	-	114,119	-	-	404,948
Culture and recreation	-	-	-	-	158,719	-	-	-	2,000	-	-	-	158,719
Community development	2,178	-	-	-	-	-	-	-	-	-	-	13,287	15,473
Debt service													
Principal	-	18,703	-	-	-	80,881	41,815	-	-	-	-	45,000	187,279
Interest	-	-	-	-	-	4,481	-	-	-	-	-	818,035	820,488
Capital outlay	-	-	-	-	780	316,837	6,454	10,000	15,185	-	-	-	348,028
Miscellaneous	36	-	-	-	-	-	-	-	-	-	-	531	565
Total Expenditures	168,218	433,915	-	-	157,499	582,863	48,389	10,000	17,185	-	114,118	874,883	2,408,788
Excess (Deficiency) of Revenues over (under) Expenditures	37,322	274,785	2,741	7,158	(124,328)	16,163	(6,731)	(8,767)	(13,314)	734	(113,801)	(184,871)	(114,928)
Other Financing Sources (Uses)													
Transfers in	-	-	-	-	-	-	83,100	10,000	-	133,900	-	270,000	497,000
Transfers out	(10,000)	(133,900)	-	-	-	-	-	-	-	-	-	-	(143,900)
Total Other Financing Sources (Uses)	(10,000)	(133,900)	-	-	-	-	83,100	10,000	-	133,900	-	270,000	353,100
Net Change in Fund Balances	27,322	140,885	2,741	7,158	(124,328)	16,163	7,368	1,233	(13,314)	134,834	(113,801)	85,029	238,171
Fund Balances at Beginning of Year	8,488	129,855	73,830	2,528	192,113	83,227	488,708	282,844	778,812	230,754	157,081	487,289	2,878,401
Fund Balances at End of Year	\$ 35,810	\$ 270,740	\$ 76,571	\$ 9,686	\$ 67,785	\$ 100,300	\$ 595,077	\$ 284,077	\$ 765,498	\$ 365,368	\$ 43,280	\$ 572,318	\$ 3,116,572



**Exeter Township,
Berks County, Pennsylvania**

**Financial Statements and
Supplementary Information**

December 31, 2014



REINSEL KUNTZ LESHER
certified public accountants & consultants

FOCUSED. ON YOU.

Exeter Township

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December 31, 2014

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Independent Auditor's Report

To the Board of Supervisors
Exeter Township
Berks County, Pennsylvania

Report on the Financial Statements

We have audited the accompanying modified cash basis financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information and the related notes to the financial statements of Exeter Township (the Township), Berks County, Pennsylvania, as of and for the year ended December 31, 2014, which collectively comprise the Township's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified cash basis of accounting described in Note 2. This includes that the modified cash basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Township's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Auditor's Responsibility (continued)

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Basis for Qualified Opinion

Management has not included financial information for Exeter Township's component units, Exeter Township, Berks County, Authority and the Exeter Community Library, in the Township's financial statements. Accounting principles applicable to the Township's modified cash basis of accounting requires inclusion of the financial information of Exeter Township, Berks County, Authority and the Exeter Community Library with the financial information of the Township.

Qualified Opinion

In our opinion, except for the effects of not including financial information for the component units, Exeter Township, Berks County, Authority and the Exeter Community Library, as described in the basis for qualified opinion paragraph, the financial statements referred to above present fairly, in all material respects, the modified cash basis financial position of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of Exeter Township, Berks County, Pennsylvania, as of December 31, 2014, and the respective changes - modified cash basis financial position thereof for the year then ended in accordance with the basis of accounting described in Note 2.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on Pages 4 to 13 and other required supplementary information on Pages 50 to 53 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole that collectively comprise Exeter Township's basic financial statements. The supplementary information presented in the table of contents under the heading Supplementary Information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole on the basis of accounting described in Note 2.

Basis of Accounting

We draw attention to Note 2 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted on the United States of America. Our opinion is not modified with respect to this matter.

Reinsel Kuntz Leaker LLP

June 3, 2015
Wyomissing, Pennsylvania

EXETER TOWNSHIP

MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of Exeter Township's (the Township) financial performance provides an overview of the Township's financial activities for the year ended December 31, 2014, within the limitations of the Township's modified cash basis of accounting. Please read it in conjunction with the Township's financial statements that begin on page 14.

Financial Highlights

- The Township's total expenditures exceeded total revenues on the modified cash basis of accounting by \$257,419 for the year ended December 31, 2014, compared to an excess of expenditures over revenues of \$50,534 for the year ended December 31, 2013. This resulted in a decrease of total net position of 1.4% for the year ended December 31, 2014, compared to a decrease of .3% for the year ended December 31, 2013.
- At December 31, 2014, the Township's governmental funds reported combined ending fund balances of \$6,139,131 an increase of \$86,680 from the prior year. \$2,221,310 or 36.2% of the ending fund balance is *available for spending* at the Township's discretion (*unassigned fund balance*). The General Fund highlights are as follows:
 - The Township's General Fund had an increase in its fund balance of \$1,015 to \$2,938,894. As part of managing the finances of the Township, a fund balance is maintained in order to provide adequate financial resources to pay for services to the citizens of the Township during periods when tax and other revenue collections are not sufficient to fund daily operating costs. This generally occurs in the first few months of each year. This enables the Township to avoid having to borrow money to cover operating expenses prior to the receipt of tax revenues, which are assessed March 1 of each year. At December 31, 2014, the unassigned fund balance of the General Fund was \$2,221,310 or 22.9% of total General Fund expenditures.
- At December 31, 2014, the Township's business-type activities reported net position of \$12,382,036 a decrease of \$344,099 from the prior year.

USING THIS ANNUAL REPORT

This annual report is presented in a format consistent with the presentation requirements of the Governmental Accounting Standards Board (GASB) Statement No. 34, as applicable to the Township's modified cash basis of accounting.

Report Components

This annual report consists of five parts as follows:

Government-Wide Financial Statements: The statement of net position – modified cash basis and the statement of activities – modified cash basis (pages 14 and 15) provide information about the activities of the Township government-wide (or "as a whole") and present a longer-term view of the Township's finances. The statement of activities reports revenues and expenditures utilizing the modified cash basis of accounting as described in Note 2 to the financial statements.

Fund Financial Statements: Fund financial statements (starting on page 16) focus on the individual parts of the Township's government. Fund financial statements also report the Township's operations in more detail than the government-wide statements by providing information about the Township's most significant ("major") funds. For governmental funds, these statements tell how these services were financed in the short-term as well as what remains for future spending. For the proprietary funds, these statements offer information about the funds the Township operates like a business, such as the sewer fund and the country club.

Notes to the Financial Statements: The notes to the financial statements are an integral part of the government-wide and fund financial statements and provide expanded explanation and detail regarding the information reported in the statements.

Required Supplementary Information: The management's discussion and analysis (pages 4 through 13), the schedules of funding progress (page 50) and the budgetary comparison schedule (pages 51 and 52) represent financial information required by GASB to be presented. Such information provides users of this report with additional data that supplements the government-wide statements, fund financial statements and notes (referred to as "the basic financial statements").

Other Supplementary Information: This part of the annual report (starting on page 54) includes optional financial information such as combining statements for nonmajor funds (which are added together and shown in the fund financial statements in a single column). This other supplemental financial information is provided to address certain specific needs of various users of the Township's annual report.

Basis of Accounting

The Township has elected to present its financial statements on the modified cash basis of accounting. The modified cash basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America. The term "basis of accounting" is a reference to when financial events are recorded. Under the modified cash basis of accounting, only revenues collected and expenditures paid and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned and expenditures are generally recognized when paid rather than when the related liability is incurred.

USING THIS ANNUAL REPORT (CONTINUED)

Basis of Accounting (Continued)

As a result of the use of the modified cash basis of accounting, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation are not recorded in these financial statements. Therefore, when reviewing the financial information and discussion within this annual report, the reader should keep in mind the limitations resulting from the use of the modified cash basis of accounting.

Reporting the Township as a Whole

The Township's Reporting Entity Presentation

This annual report includes only the primary government of the Township which consists of all funds, organizations, institutions, agencies, departments, and offices that comprise the Township's legal entity. Accounting principles generally accepted in the United States of America require that the reporting entity include the primary government, organizations for which the primary government is financially accountable and other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define the reporting entity, we have considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the significance of their operational or financial relationships with the Township. The following component units meet the requirements for inclusion under the above criteria, but are not included in the Township's annual report: Exeter Township, Berks County, Authority which was terminated on April 16, 2014 and the Exeter Community Library.

The Government-Wide Statement of Net Position and the Statement of Activities

The government-wide financial statements are presented on pages 14 and 15. One of the most important questions asked about the Township's finances is, "Is the Township as a whole better off or worse as a result of the year's activities?" The statement of net position – modified cash basis and the statement of activities – modified cash basis report information about the Township as a whole and about its activities in a way that helps answer this question. These statements include only the Township's assets and the related liabilities referred to above resulting from the use of the modified cash basis of accounting.

These two statements report the Township's net position and changes in them. Over time, increases or decreases in the Township's net position are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors to assess the overall health of the Township, i.e., changes in the Township's tax base, the condition of the Township's roads, etc. In addition, the limitations of the modified cash basis of accounting should be considered when analyzing the overall financial health of the Township.

USING THIS ANNUAL REPORT (CONTINUED)

Reporting the Township as a Whole (Continued)

The Government-Wide Statement of Net Position and the Statement of Activities (continued)

In the Statement of Net Position and the Statement of Activities, we divide the Township into two kinds of activities:

Governmental activities: Most of the Township's basic services are reported here, including general government services, public safety, public works, and culture and recreation. Charges for services finance a portion of the costs to provide these services. Costs not recovered through charges are financed from grants, contributions and general revenues of the Township, including real estate taxes and income taxes.

Business-type activities: The Township charges a fee to customers to help it cover all or most of the cost of certain services it provides. The Township's sewer system and country club are reported here.

Reporting the Township's Most Significant Funds

The Fund Financial Statements

The fund financial statements begin on page 16 and provide detailed information about the most significant funds – not the Township as a whole. Some funds are required to be established by state law or by bond covenants. However, the Township establishes certain other funds to help it control and manage money for particular purposes or to show that it is meeting legal responsibilities for using certain taxes, grants and other money. The Township's two kinds of funds – governmental and proprietary – under the modified cash basis of accounting use the same accounting approaches.

Governmental funds – Most of the Township's basic services are reported in governmental funds which focus on how money flows into and out of those funds and the balances remaining at year-end that are available for spending. These funds report the acquisition of capital assets and payments for debt principal as cash disbursements and not as changes to asset and debt balances. The governmental fund statements provide a detailed short-term view of the Township's general government operations and the basic services it provides. Governmental fund information helps you determine (through a review of changes to fund balance) whether there are more or fewer financial resources that can be spent in the near future to finance the Township's programs.

Proprietary funds – When the Township charges customers for the services it provides, these services are generally reported in proprietary funds. Proprietary funds are reported in the same way that all activities are reported in the statement of net position and the statement of activities.

Fiduciary funds – Fiduciary funds are often used to account for assets that are held in a trustee or fiduciary capacity such as pension plan assets, assets held per trust agreements and similar arrangements.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE

Net Position – Modified Cash Basis

The Township's Primary Government net position, resulting from modified cash basis transactions, decreased by \$257,419 or 1.4%, from fiscal year 2013 to 2014. Combined net position was \$18,521,167 and \$18,778,586 at December 31, 2014 and 2013, respectively. Looking at the net position of governmental and business-type activities separately, governmental activities had an increase of \$86,680 while business-type activities had a decrease of \$344,099.

A condensed summary of the Township's Statement of Net Position at December 31, 2014 and 2013 is presented below:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2014	2013	2014	2013	2014	2013
Assets						
Total Assets (Non-Capital)	\$ 6,187,857	\$ 6,092,675	\$ 12,387,036	\$ 12,726,135	\$ 18,574,893	\$ 18,818,810
Liabilities						
Deposits held in escrow	\$ 48,726	\$ 40,224	\$ 5,000.00	\$ -	\$ 53,726	\$ 40,224
Total liabilities	\$ 48,726	\$ 40,224	\$ 5,000.00	\$ -	\$ 53,726	\$ 40,224
Net Position						
Unrestricted	4,942,636	4,786,268	10,544,270	10,489,477	15,486,906	15,275,745
Restricted	1,196,495	1,266,183	1,837,766	2,236,658	3,034,261	3,502,841
Total Net Position	\$ 6,139,131	\$ 6,052,451	\$ 12,382,036	\$ 12,726,135	\$ 18,521,167	\$ 18,778,586

Net position is shown as restricted if it can only be used for a specific purpose. Net position of \$3,034,261 and \$3,502,841 at December 31, 2014 and 2013, respectively, is restricted and the remaining net position is unrestricted at the end of the year.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Changes in Net Position – Modified Cash Basis

For the year ended December 31, 2014 and 2013, net position of the Township (resulting from modified cash basis transactions) changed as follows:

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2014	2013	2014	2013	2014	2013
Program revenues:						
Charges for services	\$ 1,599,986	\$ 1,598,932	\$ 7,741,673	\$ 7,811,328	\$ 9,341,659	\$ 9,410,260
Operating grants and contributions	1,691,554	1,353,619	19,331	-	1,710,885	1,353,619
General revenues:						
Real estate taxes	4,006,637	3,924,959	-	-	4,006,637	3,924,959
Per capita taxes	67,621	64,934	-	-	67,621	64,934
Real estate transfer taxes	331,340	403,938	-	-	331,340	403,938
Earned income taxes	3,342,864	3,241,515	-	-	3,342,864	3,241,515
Local services tax	329,174	314,403	-	-	329,174	314,403
Business privilege tax	474,185	432,241	-	-	474,185	432,241
Interest and rents	86,564	86,776	382,249	389,032	468,813	475,808
Sale of assets	28,215	4,655	-	-	28,215	4,655
Other income	191,400	326,673	-	-	191,400	326,673
Proceeds of bond issuance and bond premium	-	-	-	7,802,592	-	7,802,592
Total revenues	\$ 12,149,540	\$ 11,752,645	\$ 8,143,253	\$ 16,002,952	\$ 20,292,793	\$ 27,755,597
Expenditures:						
General government	\$ 772,880	\$ 755,293	\$ -	\$ -	\$ 772,880	\$ 755,293
Public safety	6,108,383	5,606,771	-	-	6,108,383	5,606,771
Health and human services	26,383	25,813	-	-	26,383	25,813
Public works - sanitation	195,796	195,796	-	-	195,796	195,796
Public works - highways and streets	2,096,249	2,129,575	-	-	2,096,249	2,129,575
Culture and recreation	633,087	718,389	-	-	633,087	718,389
Community development	59,352	59,352	-	-	59,352	59,352
Debt service	1,351,943	1,332,407	-	-	1,351,943	1,332,407
Benefits	113,710	236,550	-	-	113,710	236,550
Property and casualty insurance	189,753	166,118	-	-	189,753	166,118
Capital outlay	622,214	437,605	-	-	622,214	437,605
Miscellaneous	173,110	183,268	-	-	173,110	183,268
Sewer	-	-	5,589,126	13,245,794	5,589,126	13,245,794
Country club	-	-	2,618,226	2,713,400	2,618,226	2,713,400
Total expenditures	\$ 12,342,860	\$ 11,846,937	\$ 8,207,352	\$ 15,959,194	\$ 20,550,212	\$ 27,806,131
Excess (deficiency) of revenues over (under) expenditures before transfers	\$ (193,320)	\$ (94,292)	\$ (64,099)	\$ 43,758	\$ (257,419)	\$ (50,534)
Transfers:						
Transfers	\$ 280,000	\$ 270,346	\$ (280,000)	\$ (270,346)	\$ -	\$ -
Changes in net position	\$ 86,680	\$ 176,054	\$ (344,099)	\$ (226,588)	\$ (257,419)	\$ (50,534)
Net position, beginning of year	6,052,451	5,876,397	12,726,135	12,952,723	18,778,586	18,829,120
Net position, end of year	\$ 6,139,131	\$ 6,052,451	\$ 12,382,036	\$ 12,726,135	\$ 18,521,167	\$ 18,778,586

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Governmental Activities

To aid in the understanding of the statement of activities, some additional explanation is given. Of particular interest is the format that is significantly different from a typical statement of revenues, expenditures and changes in net position. You will notice that expenditures are listed in the first column, with revenues from that particular program reported to the right. The result is a net revenue or expenditure. This type of format highlights the relative financial burden of each of the functions on the Township's taxpayers. It also identifies how much each function draws from the general revenues or if it is self-financing through fees and grants or contributions. All other governmental revenues are reported as general. It is important to note that all taxes are classified as general revenues, even if restricted for a specific purpose.

For the years ended December 31, 2014 and 2013, total revenues for governmental activities, resulting from modified cash basis transactions amounted to \$12,149,540 and \$11,752,645 respectively.

For the year ended December 31, 2014, total disbursements for governmental activities, resulting from modified cash basis transactions, amounted to \$12,342,860. Of these total disbursements, taxpayers and other general revenues funded \$8,858,000 while those directly benefiting from the program funded \$1,691,554 from operating grants and contributions and \$1,599,986 from charges for services.

Some noteworthy events occurred in 2014 that are highlighted as follows:

- The Township real estate tax for 2014 was 1.815 mills for general purposes, .505 mills for the purchase of fire apparatus and making appropriations to fire companies, and .55 mills for the purpose of debt service related to the acquisition of the Reading Country Club.
- Earned Income Taxes increased \$101,349 or 3% from 2013.
- Business Privilege Tax increased \$41,944 or 10% from 2013.
- Operating grants and contributions increased \$337,935 from 2013. A majority of the increase was due to the receipt of two years of recycling grants for \$259,105 along with a \$44,600 increase in Liquid Fuels and the \$35,000 Early Intervention Grant from DCED.

A FINANCIAL ANALYSIS OF THE TOWNSHIP AS A WHOLE (CONTINUED)

Business-Type Activities

In reviewing the business-type activities net revenues/expenditures resulting from the modified cash basis transactions, there are certain activities that need to be examined more closely. The business-type activities reported a net loss before transfers of \$64,099, transfers to other funds totaled \$280,000, resulting in a decrease in net position of \$344,099. The Sewer Fund had a \$297,718 decrease in net position. The decrease was due mainly to the use of 2009 unspent bond proceeds to pay for the 2014 capital expenditures. The Country Club had a \$46,381 decrease in net position. Net income before transfers was \$233,619. Transfers of \$280,000 to the debt service fund will be used to pay off the debt incurred to purchase the property.

A FINANCIAL ANALYSIS OF THE TOWNSHIP'S FUNDS

In reviewing individual funds of the Township, certain funds experienced significant changes to be considered in analyzing the Township's funds:

- Golf Acquisition Fund – During 2014, \$57,373 was expended for capital improvements to the Country Club including \$29,862 for furnishings and kitchen equipment, \$22,956 for building and grounds improvements and \$4,555 for point of sale computer equipment.
- Park Improvement Fund – During 2014, \$4,186 was expended for improvements to the Dunn Barn Community Center. \$41,944 was expended for construction of Farming Ridge Park. \$6,924 was expended for improvements to Community Park.
- Capital Improvement Fund – During 2014, \$61,524 was expended for capital improvements, including \$28,645 partial payment for replacement of the Gas Fueling System, \$13,666 towards replacement of the phone system, \$17,531 for equipment for the Fire Police and \$1,682 for a laser printer in GIS department.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The acquisition of capital assets by the Township is reported as expenditures in the year of acquisition in the fund acquiring the related assets.

Long-Term Debt

Proceeds from the acquisition of long-term debt are reported as revenues in the respective fund acquiring the debt in the year the proceeds are received. Correspondingly, debt service payments are reported as expenditures in the year payment is made by the fund making the related debt service payments.

CAPITAL ASSETS AND DEBT ADMINISTRATION (CONTINUED)

Long-Term Debt (Continued)

As of December 31, 2014, the Township had \$21,110,008 and \$26,015,000 of general obligation debt outstanding in the Governmental and Business-Type Activities, respectively. See Note 7 to the financial statements for a detailed analysis of long-term debt. The following details activity related to the general obligation debt during 2014:

	Governmental Activities	Business-Type Activities
Beginning Balance at January 1, 2014	\$ 21,517,101	\$ 27,605,000
Principal Payments	(407,093)	(1,590,000)
Ending Balance at December 31, 2014	<u>\$ 21,110,008</u>	<u>\$ 26,015,000</u>

Budgetary Highlights

Over the course of the year, the Township's Board of Supervisors monitored actual results with budgeted results. Although actual results and budgeted results may differ due to circumstances that arise during the course of the year, the Township generally does not amend its budget after adoption.

For the year ended December 31, 2014, General Fund expenditures were \$51,121 above final appropriations, while actual revenues available for appropriation were \$353,750 above the budgeted amount.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

Several events have occurred in 2014 that will have a positive benefit on Exeter Township. The Township received a \$78,240 Early Intervention Program (EIP) Grant from the Pa Department of Community and Economic Development (DCED) for the Plan Implementation Phase II Project. The grant funds will be used toward the cost of addressing some of the recommendations provided within the PA Economy League (PEL) study from Phase I of the Project. The Fire and EMS study has been completed and in March of 2015 the 911 EMS services have been combined within the Fire Department. A consultant is currently reviewing the feasibility of implementing the accounting recommendations and a portion of the administration recommendations. Nine new businesses have joined Exeter's family of businesses. ALDI Inc. completed construction and opened in December 2014. Angio Tech Surgical Specialties is slated to close by December 2015 which will mean a loss of 250 jobs. To spur more commercial economic development to broaden the Township's commercial tax base, the nine-member Economic Development Advisory Council (EDAC) in conjunction with the Township Board of Supervisors continue to actively seek new commercial business in the Township. The Board hired a professional planner to lead the visioning and community input portion of the Strategic Planning Project which has been completed. The Strategic Planning Steering Committee has formed several subcommittees to investigate and evaluate the focal priorities which is currently underway. The Township's general tax millage for 2015 remained unchanged at 1.815 mills. Due to the overall economic climate many revenue sources are expected to remain stagnant through 2015. However, the Township is fortunate to have a healthy General Fund balance to bridge any unexpected shortfalls. In addition, the Debt Service millage decreased from .55 mills to .50 mills. The Fire Tax millage increased from .505 mills to .555 mills. The Street Light Tax and the Fire Hydrant Tax remained unchanged.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES (CONTINUED)

The Township's current retail and service industry employment base is strong with several large employers already adding to the local economy. Some of the largest employers within the Township are as follows:

Employer	Number of Employees
Boscov's	1,011
Godiva Chocolatier	534
Wal-Mart	301
Angio Tech Surgical Specialties	250
Giant Food	214
Genesis Eldercare, Berkshire Center	165
Golden Living Center	160
Target	138
Lowe's	130
Redners	102
Home Depot	95

During 2015, the Township has budgeted to undertake or complete several major infrastructure and capital projects to add to the overall quality of life in the Township. These projects and the estimated costs include the following:

• Start-up equipment for Farming Ridge Park	\$ 11,000
• Improvements to Dunn Barn Community Center	34,500
• Fitness equipment for Community Park	11,373
• Improvements to Reading Country Club	332,200
• Harvey Avenue Bridge repairs	150,000
• Capital projects for the Sewer plant and Collection system	526,920

All of these factors were considered in preparing the Township's budget for the 2015 fiscal year. As a result, General Fund revenues are anticipated to increase 2 percent to \$ 9,555,653, while expenditures are budgeted to increase 1.9 percent to \$ 9,815,661. Other governmental fund revenues for 2015 are budgeted at \$ 2,930,289 while expenditures are budgeted for \$ 4,561,638. The excess of budgeted expenditures over revenues will be covered by the fund balances at December 31, 2014. Proprietary Fund revenues are budgeted at \$7,408,591 while expenditures are budgeted for \$7,726,794.

CONTACTING THE TOWNSHIP'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, customers and creditors with a general overview of the Township's finances and to demonstrate the Township's accountability for the monies it receives. If you have questions about this report or need additional financial information, contact Exeter Township, 4975 DeMoss Road, Reading, PA 19606.

Exeter Township**Statement of Net Position - Modified Cash Basis**

	December 31, 2014		
	Primary Government		
	Governmental Activities	Business-Type Activities	Total
Assets			
Cash:			
Unrestricted	\$ 4,298,994	\$ 3,549,270	\$ 7,848,264
Restricted	1,888,863	1,837,766	3,726,629
Certificate of deposit	-	7,000,000	7,000,000
Total Assets	6,187,857	12,387,036	18,574,893
Liabilities			
Deposits held in escrow	48,726	5,000	53,726
Total Liabilities	48,726	5,000	53,726
Net Position			
Net Position			
Unrestricted	4,942,636	10,544,270	15,486,906
Restricted	1,196,495	1,837,766	3,034,261
Total Net Position	\$ 6,139,131	\$ 12,382,036	\$ 18,521,167

See accompanying notes.

Exeter Township

Statement of Activities - Modified Cash Basis

Functions/Programs	Year Ended December 31, 2014				
	Expenditures	Program Revenues		Net (Expenditures) Revenues and Changes in Net Position	
		Charges for Services	Operating Grants and Contributions	Primary Government	
				Governmental Activities	Business-Type Activities
					Total
Governmental Activities					
General government	\$ 772,000	\$ 406,453	\$ 389,058	\$ 22,631	\$ 22,631
Public safety	6,108,383	309,208	396,775	(5,402,400)	(5,402,400)
Health and human services	26,383	-	-	(26,383)	(26,383)
Public works - sanitation	195,796	690,292	-	494,496	494,496
Public works - highways and streets	2,096,249	16,496	255,116	(1,824,637)	(1,824,637)
Culture and recreation	633,067	177,537	-	(455,530)	(455,530)
Community development	58,352	-	-	(58,352)	(58,352)
Debt service	1,351,943	-	65,239	(1,286,704)	(1,286,704)
Benefits	113,710	-	-	(113,710)	(113,710)
Property and casualty insurance	189,753	-	-	(189,753)	(189,753)
Capital outlay	622,214	-	412,949	(209,265)	(209,265)
Miscellaneous	173,110	-	172,417	(693)	(693)
Total Governmental Activities	12,342,860	1,599,986	1,691,554	(9,051,320)	(9,051,320)
Business-Type Activities					
Sewer	5,589,128	4,892,010	19,331	-	(677,785)
Country Club	2,618,228	2,848,663	-	-	231,437
Total Business-Type Activities	8,207,352	7,741,673	19,331	-	(446,348)
	\$ 20,550,212	\$ 9,341,659	\$ 1,710,885	(9,051,320)	(9,497,668)
General Revenues					
Taxes:					
Real estate				4,006,637	4,006,637
Real estate transfer				331,340	331,340
Per capita				67,621	67,621
Earned income				3,342,864	3,342,864
Local services				329,174	329,174
Business privilege				474,185	474,185
Interest and rents				86,564	468,813
Sale of assets				28,215	28,215
Miscellaneous				191,400	191,400
Transfers				260,000	(280,000)
Total General Revenues and Transfers				9,138,000	102,249
Changes in Net Position				66,680	(344,099)
Net Position at Beginning of Year				6,052,451	12,726,135
Net Position at End of Year				\$ 6,119,131	\$ 12,382,036

See accompanying notes

Exeter Township**Statement of Assets, Liabilities and Fund Balances - Modified Cash Basis - Governmental Funds**

	December 31, 2014		
	General Fund	Other Governmental Funds	Total Governmental Funds
Assets			
Cash:			
Unrestricted	\$ 2,847,357	\$ 1,451,637	\$ 4,298,994
Restricted	140,263	1,748,600	1,888,863
Total Assets	2,987,620	3,200,237	6,187,857
Liabilities			
Deposits held in escrow	48,726	-	48,726
Total Liabilities	48,726	-	48,726
Fund Balances			
Restricted	92,437	1,104,058	1,196,495
Committed	625,147	2,096,179	2,721,326
Unassigned	2,221,310	-	2,221,310
Total Fund Balances	\$ 2,938,894	\$ 3,200,237	\$ 6,139,131

See accompanying notes.

Exeter Township

Statement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis Governmental Funds

	Year Ended December 31, 2014		
	General Fund	Other Governmental Funds	Total Governmental Funds
Revenues			
Taxes:			
Real estate	\$ 2,458,587	\$ 1,548,050	\$ 4,006,637
Real estate transfer	331,340	-	331,340
Per capita	67,621	-	67,621
Earned income	3,342,864	-	3,342,864
Local services	329,174	-	329,174
Business privilege	474,185	-	474,185
Licenses and permits	306,061	-	306,061
Fines and forfeits	127,620	-	127,620
Interest and rents	35,134	51,430	86,564
Intergovernmental revenues	950,230	741,324	1,691,554
Charges for services	1,126,683	39,622	1,166,305
Miscellaneous	170,827	20,573	191,400
Total Revenues	9,720,326	2,400,999	12,121,325
Expenditures			
Current:			
General government	772,880	-	772,880
Public safety	5,334,830	773,553	6,108,383
Health and human services	26,383	-	26,383
Public works - sanitation	195,796	-	195,796
Public works - highways and streets	1,766,561	329,688	2,096,249
Culture and recreation	578,730	54,357	633,087
Community development	43,879	15,473	59,352
Debt service:			
Principal	295,475	173,492	468,967
Interest	65,488	817,488	882,976
Benefits	113,710	-	113,710
Property and casualty insurance	189,753	-	189,753
Capital outlay	131,534	490,680	622,214
Miscellaneous	172,787	323	173,110
Total Expenditures	9,687,806	2,655,054	12,342,860

See accompanying notes.

Exeter TownshipStatement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis
Governmental Funds (continued)

	Year Ended December 31, 2014		
	General Fund	Other Governmental Funds	Total Governmental Funds
Excess (Deficiency) of Revenues over (under) Expenditures	\$ 32,520	\$ (254,055)	\$ (221,535)
Other Financing Sources (Uses)			
Transfers in	380	488,017	488,397
Transfers out	(60,100)	(148,297)	(208,397)
Sale of assets	28,215	-	28,215
Total Other Financing Sources (Uses)	(31,505)	339,720	308,215
Net Change in Fund Balances	1,015	85,665	86,680
Fund Balances at Beginning of Year	2,937,879	3,114,572	6,052,451
Fund Balances at End of Year	\$ 2,938,894	\$ 3,200,237	\$ 6,139,131

See accompanying notes.

Exeter Township**Statement of Net Position - Modified Cash Basis - Proprietary Funds**

	December 31, 2014		
	Sewer	Country Club	Total
Assets			
Cash:			
Unrestricted	\$ 2,933,928	\$ 615,342	\$ 3,549,270
Restricted	1,837,766	-	1,837,766
Certificate of deposit	7,000,000	-	7,000,000
Total Assets	11,771,694	615,342	12,387,036
Liabilities			
Deposits held in escrow	5,000	-	5,000
Total Liabilities	5,000	-	5,000
Net Position			
Unrestricted	9,928,928	615,342	10,544,270
Restricted	1,837,766	-	1,837,766
Total Net Position	\$ 11,766,694	\$ 615,342	\$ 12,382,036

See accompanying notes.

Exeter TownshipStatement of Revenues, Expenditures and Changes in Net Position - Modified Cash Basis
Proprietary Funds

	Year Ended December 31, 2014		
	Sewer	Country Club	Total
Operating Revenues			
Sewer charges	\$ 4,776,238	\$ -	\$ 4,776,238
Tapping fees	64,785	-	64,785
Charges for services	-	2,849,663	2,849,663
Intergovernmental revenues	19,331	-	19,331
Miscellaneous	50,987	-	50,987
Total Operating Revenues	4,911,341	2,849,663	7,761,004
Operating Expenditures			
Wastewater collection and treatment	2,591,166	-	2,591,166
Culture and recreation expenses	-	2,618,226	2,618,226
Capital outlay	405,388	-	405,388
Total Operating Expenditures	2,996,554	2,618,226	5,614,780
Operating Income	1,914,787	231,437	2,146,224
Nonoperating Revenues (Expenses)			
Interest income	380,067	2,182	382,249
Debt service:			
Principal	(1,590,000)	-	(1,590,000)
Interest	(1,001,015)	-	(1,001,015)
Fiscal agent fees	(1,557)	-	(1,557)
Total Nonoperating Revenues (Expenses)	(2,212,505)	2,182	(2,210,323)
Income (Loss) before Other Financing Sources (Uses)	(297,718)	233,619	(64,099)
Other Financing Sources (Uses)			
Transfers out	-	(280,000)	(280,000)
Total Other Financing Sources (Uses)	-	(280,000)	(280,000)
Change in Net Position	(297,718)	(46,381)	(344,099)
Net Position at Beginning of Year	12,064,412	661,723	12,726,135
Net Position at End of Year	\$ 11,766,694	\$ 615,342	\$ 12,382,036

See accompanying notes.

Exeter Township

Notes to Financial Statements

December 31, 2014

Note 1 - Nature of Activity

Exeter Township, Pennsylvania (the Township), founded in 1741, has an approximate population of 25,550, based on a 2010 census report, living within an area of 24.1 square miles. The Township is in the southeastern portion of the Commonwealth of Pennsylvania and is located in Berks County.

Note 2 - Summary of Significant Accounting Policies

The accompanying primary government financial statements conform to the modified cash basis method of accounting as applicable to governmental units. The modified cash basis of accounting differs from accounting principles generally accepted in the United States of America (GAAP). Accounting principles generally accepted in the United States of America include all relevant Governmental Accounting Standards Board (GASB) pronouncements. The following is a summary of the more significant accounting policies used by the Township.

The Financial Reporting Entity

The Township is a Pennsylvania Second Class Township which operates under a Board of Supervisors form of government. Accounting principles generally accepted in the United States of America require that the reporting entity consists of the primary government and organizations for which the primary government is financially accountable. In addition, the primary government may determine through the exercise of management's professional judgment that the inclusion of an organization that does not meet the financial accountability criteria is necessary in order to prevent the reporting entity's financial statements from being misleading. In such instances, that organization should be included as a component unit if the nature and significance of their relationship with the primary government or other component units, are such that exclusion from the financial reporting entity would render the financial reporting entity's financial statements incomplete or misleading. In evaluating how to define the reporting entity, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made based upon the above criteria. The component units, as determined under the above criteria and as discussed below, are not included in the Township's reporting entity, as these financial statements include only the activities of the primary government.

Individual Component Unit Disclosures

Exeter Township, Berks County, Authority

Exeter Township, Berks County, Authority (the Authority) is governed by a five-member board appointed by the Township Board of Supervisors. Although it is legally separate from the Township, the Authority is a component unit and its primary purpose is to provide sewer utilities to the Township. The Authority was terminated on April 16, 2014.

Exeter Community Library

The Exeter Community Library (the Library) is governed by a nine-member self-appointed board. Although it is legally separate from the Township, the Library is a component unit and its primary purpose is to provide library services to Township residents. The Township considers the Library to be fiscally dependent on the Township due to the Township's annual appropriation given to the Library.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation

Government-Wide Financial Statements

The statement of net position and the statement of activities display information about the reporting government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues. Business-type activities are financed in whole, or in part, by fees charged to external parties for goods or services.

Fund Financial Statements

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures. Funds are organized into two major categories: governmental and proprietary. An emphasis is placed on major funds within the governmental and proprietary categories. A fund is considered major if it is the primary operating fund of the Township or meets the following criteria:

Total assets, liabilities, revenues or expenditures of that individual governmental or enterprise fund are at least 10% of the corresponding total for all funds of that category or types, and total assets, liabilities, revenues or expenditures of the individual governmental fund or enterprise fund are at least 5% of the corresponding total for all governmental and enterprise funds combined.

The Township may also report as a major fund any fund it believes to be of particular importance to the financial statement users.

The funds of the financial reporting entity are described below:

Governmental Funds

Governmental funds are those through which most governmental functions of the Township are financed. The acquisition, use and balances of the Township's expendable financial resources and the related liabilities (except those accounted for in proprietary funds) are accounted for through governmental funds. The measurement focus is based upon determination of changes in financial position rather than upon net income determination.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation (continued)

Fund Financial Statements (continued)

Governmental Funds (continued)

The following are the Township's governmental funds:

General Fund - is the primary operating fund of the Township and is always classified as a major fund. It is used to account for and report all financial resources not accounted for or reported in another fund.

Special Revenue Funds - are used to account for and report the proceeds of specific revenue sources that are restricted, committed or assigned to expenditures for specified purposes other than debt service or capital projects. The term "proceeds of specific revenue sources" establishes that one or more specific restricted, committed or assigned revenues should be the foundation for a special revenue fund. The reporting entity includes the following special revenue funds, which are reported as nonmajor funds:

Utility Fund - is used to account for the assessment received from property owners benefiting from public street lighting and fire hydrant service, and the expenditures incurred by the Township to provide these services.

Fire Fund - is used to account for revenues generated from the .505 mill assessment received from Township residents for the purpose of providing support for the Township's volunteer fire department.

Detention Pond/Storm Water Fund - is used to account for monies received from developers for the acceptance of Deeds of Dedication for detention or retention ponds within the Township.

K-9 Fund - is used to account for contributions to be used specifically for the improvement and continuation of the police K-9 program.

Park Improvement Fund - is used to account for monies received from developers to be used in the acquisition, improvement and/or maintenance of public open space areas.

State Liquid Fuels Highway Aid Fund - is used to account for the proceeds from the State Motor License Fund. Under the Act of June 1, 1956, P.L. 1944, No. 145, this fund must be kept separate from all other funds and no other funds shall be commingled with this fund. Expenditures are legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations. County liquid fuels tax payments to the local government are not accounted for in this fund.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Presentation (continued)

Fund Financial Statements (continued)

Governmental Funds (continued)

Capital Project Funds - are used to account for and report financial resources that are restricted, committed or assigned expenditures for capital outlays including the acquisition or construction of major capital improvements. Capital project funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations or other governments. The reporting entity includes the following capital project funds, which are reported as nonmajor funds:

Capital Expenditure Fund - is used to account for the financial resources to be used for the acquisition of assets.

Capital Improvement Fund - is used to account for the financial resources to be used primarily for storm sewer improvements.

Golf Acquisition Fund - is used to account for the financial resources to be used to acquire and make improvements to a municipal golf course and banquet facility within the Township.

Apparatus Fund - is used to account for the financial resources to assist the fire company in purchasing equipment.

Traffic Improvement Fund - is used to account for the collection of transportation impact assessments against new developments that adversely affect the transportation facilities within the Township.

Debt Service Fund - is used to account for and report financial resources that are restricted, committed or assigned to expenditures for principal and interest (debt service) resources. This fund includes financial resources that are being accumulated for principal and interest maturing in future years and also includes financial resources that are legally mandated to be accounted for and reported in a debt service fund and is reported as a nonmajor fund.

Proprietary Funds

Enterprise Funds - are used to account for business-like activities provided to the general public. These activities are financed primarily by user charges and the measurement of financial activity focuses on net income measurement similar to the private-sector. The reporting entity includes the following enterprise funds which are reported as major funds:

Sewer Fund - is used to account for the operation of the sewer system, which is operated as a public utility.

Country Club Fund - is used to account for the operation of the Reading Country Club.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Basis of Accounting and Measurement Focus

Basis of Accounting

Basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the primary government financial statements.

Modified Cash Basis

The Township's policy is to prepare its financial statements on the modified cash basis under which only revenues collected and expenditures paid, deposits held in escrow and intergovernmental due to and due from receivables and payables are recorded. Under this basis, revenue is recognized when collected rather than when earned and expenditures are generally recognized when paid rather than when the related liability is incurred. Consequently, other receivables, other payables, inventories, long-lived assets, accrued income and expenses, and amortization and depreciation, which may be material in amount, are not reflected in the accompanying financial statements, which are not intended to present the financial position, results of operations or cash flows in conformity with accounting principles generally accepted in the United States of America.

If the Township utilized the basis of accounting recognized as generally accepted, the fund financial statements for governmental funds would use the modified accrual basis of accounting, while the fund financial statements for proprietary fund types would use the accrual basis of accounting. All government-wide financial statements would be presented on the accrual basis of accounting.

Measurement Focus

The accounting and reporting treatment applied to a fund is determined by its measurement focus. Governmental funds are accounted for on a spending or "financial flow" measurement focus. Governmental fund type operating statements present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets.

Proprietary funds and nonexpendable trust funds are accounted for on a cost of services or "capital maintenance" measurement focus. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in net position.

Assets and Liabilities

Cash

The Township considers all cash accounts that are not subject to withdrawal restrictions or penalties to be cash.

For the purpose of financial reporting, cash includes all demand and savings accounts and certificates of deposit or short-term investments with an original maturity of three months or less.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Assets and Liabilities (continued)

Due To and From Other Funds

Interfund receivables and payables arise from interfund transactions and are recorded by all funds affected in the period in which transactions are executed.

Capital Assets

Purchased capital assets are recorded as expenditures in the governmental fund types. Proprietary fund type capital assets are recorded as expenditures in the fund in which they are utilized. Infrastructure assets consisting of certain improvements other than buildings, including roads, bridges, curbs and gutters, streets and sidewalks, drainage systems and lighting systems, are recorded as expenditures in the fund types expending the funds.

Long-Term Debt

Debt proceeds from issuance of long-term debt are reported as other financing sources and payments of principal and interest are reported as expenditures in the fund financial statements and government-wide statements. Debt service expenditures are recognized in the period paid.

Compensated Absences

Compensated absences for vacation and sick leave are recorded when paid.

Equity

Government-Wide Statements

The Township classifies net position into the following components:

Restricted - This component of net position consists of constraints placed on net position use either by (a) external groups, such as creditors, grantors, contributors or laws and regulations of other governments or (b) law through constitutional provisions or enabling legislation.

Unrestricted - This component of net position consists of net position that does not meet the definition of "restricted" or "invested in capital assets, net of related debt."

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Equity (continued)

Governmental Fund Financial Statements

The Township classifies fund balance as follows:

Nonspendable - This classification consists of amounts that cannot be spent because they are either not in spendable form or are legally required to be maintained intact.

Restricted - This classification consists of amounts that are restricted to specific purposes either by (a) external groups such as creditors, grantors, contributors or laws and regulations of other governments or (b) law through constitutional provisions or enabling legislation. The restriction is binding unless removed with the consent of the resource provider.

Committed - This classification consists of amounts used for specific purposes imposed by formal action of the Township's highest level of decision-making authority. The commitment is binding unless removed in the same manner imposed. Formal action must occur prior to fiscal year-end; however, the amount may be determined subsequent to year-end.

Assigned - This classification consists of amounts constrained by the Township's intent to be used for specific purposes that are neither restricted nor committed.

Unassigned - This classification consists of amounts that have not been assigned to other funds and that have not been restricted, committed or assigned to specific purposes within the General Fund. The General Fund should be the only fund that reports a positive unassigned fund balance.

Revenues and Expenditures

Program Revenues

All revenues are recognized when received.

In the statement of activities, revenues that are derived directly from each activity or from parties outside the Township's taxpayers are program revenues. Amounts reported as program revenues include (a) charges to customers or applicants for goods and services or privileges provided, (b) operating grants and contributions and (c) capital grants and contributions, including special assessments.

All other governmental revenues are reported as general. All taxes are classified as general revenue even if restricted for a specific purpose.

Note 2 - Summary of Significant Accounting Policies (continued)

Revenues and Expenditures (continued)

Program Revenues (continued)

Proprietary funds distinguish operating revenues and expenditures from nonoperating items. Operating revenues and expenditures generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the sewer fund are sewer usage charges. The Township also recognizes as operating revenues, the portion of tapping fees intended to recover the cost of connecting new customers to the sewer system. The principal operating revenues of the Country Club Fund are charges for services at the Country Club. Operating expenditures of the Sewer and Country Club Funds include the cost of the services. All revenues and expenditures not meeting this definition are reported as nonoperating revenues and expenditures. The principal nonoperating revenues of the Township's proprietary funds are interest income and transfers in and transfers out.

Property Taxes

The Township is permitted by state law to levy taxes up to 14 mills of assessed valuation for general purposes. State law also permits additional millage to be levied for specific purposes as defined in the law. The millage rate levied by the Township for 2014 was 2.87 mills, consisting of 1.815 mills for general purposes, .505 mills for purchase of fire apparatus and .55 mills for debt service, as established by the Board of Supervisors. Current tax collections for the Township were approximately 98% of the total tax levy.

The Township's real estate taxes are based on assessed values established by the County's Board of Assessments. The taxes are collected by elected local tax collectors. Real estate taxes attach an enforceable lien on property when levied on March 1. A discount of 2% is applied to payments made prior to April 30. A penalty of 10% is added to the face amount of taxes paid after June 30. The County of Berks Tax Claim Bureau collects delinquent real estate taxes on behalf of itself and other taxing authorities. Return of unpaid real estate taxes to the County Tax Claim Bureau is made by January 15 of the subsequent year.

Intergovernmental Revenues

Intergovernmental revenues represent revenues received from the Commonwealth of Pennsylvania, federal agencies and local governmental units, generally to fund specific programs and are recognized when received.

Expenditures/Expenses

Expenditures and expenses are recognized when paid.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 2 - Summary of Significant Accounting Policies (continued)

Internal and Interfund Balances and Activities

Fund Financial Statements

Interfund activity, if any, within and among the governmental and proprietary fund categories is reported as follows in the fund financial statements:

Interfund Services

Sales or purchases of goods and services between funds are reported as revenues and expenditures.

Interfund Reimbursements

Repayments from funds responsible for certain expenditures to the funds that initially paid for them are not reported as reimbursements, but as adjustments to expenditures in the respective funds.

Interfund Transfers

Flow of assets from one fund to another where repayment is not expected is reported as transfers in and out.

Recent Accounting Pronouncement

In June 2012, Governmental Accounting Standards Board (GASB) issued Statement No. 68, *Accounting and Financial Reporting for Pensions—An Amendment of GASB Statement No. 27*. The objective of this Statement is to improve accounting and reporting by governments for pension plans, including recognition as a liability the unfunded pension liability. This Statement is effective for periods beginning after June 15, 2014 and the Township will adopt this Statement in its December 31, 2015 financial statements.

Note 3 - Stewardship, Compliance and Accountability

Compliance with Finance-Related Legal and Contractual Provisions

The Township had no material violations of finance-related legal and contractual provisions.

Excess of Expenditures over Appropriations in Individual Funds

No individual fund, which was budgeted as required by the Commonwealth of Pennsylvania, contained an excess of expenditures over appropriations that was not covered by the cash balance at December 31, 2013 and the cash received for the year ended December 31, 2014. Expenditures exceeded appropriations in the General Fund by \$51,121.

Exeter Township

Notes to Financial Statements

December 31, 2014

Note 4 - Deposits

The Township's available cash is invested in demand deposit accounts and a certificate of deposit. The carrying amount of cash and investments at December 31, 2014 consist of the following:

Demand deposits	\$ 11,572,741
Time deposit	7,000,000
Petty cash	<u>2,152</u>
	<u>\$ 18,574,893</u>

Reconciliation to Statement of Net Position/Balance Sheet

Cash:	
Unrestricted	\$ 7,848,264
Restricted	<u>3,726,629</u>
	11,574,893
Certificate of deposit, business-type activities	<u>7,000,000</u>
	<u>\$ 18,574,893</u>

Custodial Credit Risk, Deposits

Custodial credit risk is the risk that, in the event of a financial institution failure, the Township's deposits may not be returned to the Township. At December 31, 2014, the carrying amount of the Township's bank deposits was \$18,572,741, and the corresponding bank balances were \$18,998,072, of which \$500,000 was covered by Federal Depository Insurance. The remaining \$18,498,072 of deposits was exposed to custodial risk because it was uninsured and collateralized with securities held by the pledging financial institution's trust department or agent, but not in the Township's name.

Exeter TownshipNotes to Financial Statements
December 31, 2014**Note 5 - Restricted Cash**

Cash and investments whose use is limited to a specific purpose have been classified as "restricted" in the financial statements. Restricted assets at December 31, 2014 consist of the following:

Governmental Activities

General Fund:

Police equipment	\$	83,428
Fire police		6,023
Developer escrows		47,826
Police National Night Out committee		2,986
K-9 Fund		10,932
State Liquid Fuels Highway Aid Fund		128,962
Capital Improvement Fund		213,394
Golf Acquisition Fund		713,018
Traffic Improvement Fund		37,752
Debt Service Fund		<u>644,542</u>

Total Governmental Activities **1,888,863**

Business-Type Activities

Sewer Fund, unspent note proceeds, Series A of 2009		<u>1,837,766</u>
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Total Restricted Cash **\$ 3,726,629**

Note 6 - Interfund Transfers

Transfers between funds for the year ended December 31, 2014 were as follows:

	<u>Transfers In</u>	<u>Transfers Out</u>
Governmental Funds:		
General Fund	\$ 380	\$ 60,100
Utility Fund	-	10,000
Fire Fund	-	137,917
K-9 Fund	-	380
Capital Expenditure Fund	60,100	-
Capital Improvement Fund	10,000	-
Apparatus Fund	137,917	-
Debt Service Fund	<u>280,000</u>	<u>-</u>
Total Governmental Funds	<u>488,397</u>	<u>208,397</u>

Exeter Township
 Notes to Financial Statements
 December 31, 2014

Note 6 - Interfund Transfers (continued)

	<u>Transfers In</u>	<u>Transfers Out</u>
Proprietary Funds:		
Country Club Fund	\$ -	\$ 280,000
Total Proprietary Funds	<u>-</u>	<u>280,000</u>
	<u>\$ 488,397</u>	<u>\$ 488,397</u>

Note 7 - Long-Term Debt

At December 31, 2014, long-term debt consists of the following:

	<u>Balance Outstanding December 31, 2013</u>	<u>Additions</u>	<u>Payments</u>	<u>Balance Outstanding December 31, 2014</u>
Governmental Activities				
Pennsylvania Infrastructure Investment Authority Loan, initial issue of \$299,193, interest due monthly at 1.387%, principal payments due monthly through February 2026	\$ 197,653	\$ -	\$ 13,852	\$ 183,801
General Obligation Notes, Series of 2007, in the initial amount of \$17,810,000, interest due semiannually at rates ranging from 4.200% to 4.700%, principal due annually through August 2046	17,570,000	-	50,000	17,520,000
General Obligation Notes, Series of 2012, in the initial amount of \$3,615,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2024	3,340,000	-	275,000	3,065,000

Exeter Township**Notes to Financial Statements
December 31, 2014****Note 7 - Long-Term Debt (continued)**

	Balance Outstanding December 31, 2013	Additions	Payments	Balance Outstanding December 31, 2014
Governmental Activities (continued)				
Loan payable to the County of Berks, original principal amount of \$261,411, without interest, annual payments of \$37,344 through June 2019	\$ 224,067	\$ -	\$ 37,344	\$ 186,723
Loan payable to the County of Berks, original principal amount of \$31,997, without interest, annual payments of \$4,571 through June 2019	27,426	-	4,571	22,855
Loan payable to the County of Berks, original principal amount of \$17,812, without interest, annual payments of \$2,545 through June 2019	15,267	-	2,545	12,722
Loan payable to the County of Berks, original principal amount of \$120,811, without interest, annual payments of \$17,259 through June 2019	103,552	-	17,259	86,293
Loan payable to the County of Berks, original principal amount of \$17,110, without interest, annual payments of \$2,444 through June 2019	14,666	-	2,444	12,222

Exeter TownshipNotes to Financial Statements
December 31, 2014**Note 7 - Long-Term Debt (continued)**

	Balance Outstanding December 31, 2013	Additions	Payments	Balance Outstanding December 31, 2014
Governmental Activities				
(continued)				
Loan payable to the County of Berks, original principal amount of \$21,856, without interest, annual payments of \$3,122 through June 2019	\$ 18,734	\$ -	\$ 3,122	\$ 15,612
Loan payable to the County of Berks, original principal amount of \$6,692, without interest, annual payments of \$956 through June 2019	5,736	-	956	4,780
Total Governmental Activities	21,517,101	-	407,093	21,110,008
Business-Type Activities				
General Obligation Notes, Series of 2007, in the initial amount of \$21,380,000, interest due semiannually at rates ranging from 4.750% to 5.300%, principal due annually through July 2021	14,005,000	-	1,455,000	12,550,000
General Obligation Notes, Series of 2012, in the initial amount of \$6,055,000, interest due semiannually at rates ranging from 1.250% to 2.000%, principal due annually through July 2026	5,980,000	-	60,000	5,920,000

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 7 - Long-Term Debt (continued)

	Balance Outstanding December 31, 2013	Additions	Payments	Balance Outstanding December 31, 2014
Business-Type Activities (continued)				
General Obligation Bonds, Series of 2013, in the initial amount of \$7,755,000, interest due semiannually at rates ranging from .400% to 2.000%, principal due annually through July 2024	\$ 7,620,000	\$ -	\$ 75,000	\$ 7,545,000
Total Business-Type Activities	27,605,000	-	1,590,000	26,015,000
Total Debt	\$ 49,122,101	\$ -	\$ 1,997,093	\$ 47,125,008

Aggregate maturities required on long-term debt at December 31, 2014 are as follows:

Governmental Activities

	Principal	Interest	Total Debt Service
2015	\$ 412,482	\$ 871,691	\$ 1,284,173
2016	417,882	863,566	1,281,448
2017	433,294	855,330	1,288,624
2018	438,717	846,669	1,285,386
2019	449,151	837,897	1,287,048
2020-2024	2,021,512	4,074,335	6,095,847
2025-2029	2,536,970	3,717,955	6,254,925
2030-2034	3,150,000	3,089,705	6,239,705
2035-2039	3,955,000	2,286,600	6,241,600
2040-2044	4,965,000	1,269,000	6,234,000
2045-2046	2,330,000	165,440	2,495,440
	\$ 21,110,008	\$ 18,878,188	\$ 39,988,196

Exeter Township
 Notes to Financial Statements
 December 31, 2014

Note 7 - Long-Term Debt (continued)

Business-Type Activities

	<u>Principal</u>	<u>Interest</u>	<u>Total Debt Service</u>
2015	\$ 1,665,000	\$ 924,768	\$ 2,589,768
2016	1,745,000	841,765	2,586,765
2017	1,830,000	754,540	2,584,540
2018	1,920,000	662,852	2,582,852
2019	2,020,000	565,713	2,585,713
2020-2024	11,765,000	1,413,470	13,178,470
2025-2026	5,070,000	150,500	5,220,500
	<u>\$ 26,015,000</u>	<u>\$ 5,313,608</u>	<u>\$ 31,328,608</u>

Substantially all of the Township's assets are pledged as collateral on the long-term debt.

Debt Defeasance

In January 2013, the Township advance refunded a portion of the General Obligation Note, Series of 2009, by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the 2009 note. For financial reporting purposes, the debt has been considered defeased. As of December 31, 2014, there was no amount of defeased debt outstanding.

Exeter Township
 Notes to Financial Statements
 December 31, 2014

Note 8 - Fund Balance

The fund balances of the Township's governmental funds at December 31, 2014 consist of the following:

	<u>Restricted</u>	<u>Committed</u>	<u>Unassigned</u>	<u>Total Fund Balance</u>
Reported in:				
General Fund	\$ 92,437	\$ 623,497	\$ 2,222,960	\$ 2,938,894
Other governmental funds:				
Utility Fund	-	26,545	-	26,545
Fire protection	-	230,981	-	230,981
Detention pond/storm water maintenance	-	81,630	-	81,630
K-9 Program	10,932	-	-	10,932
Parks	-	53,207	-	53,207
Public works, highways and streets	128,962	-	-	128,962
Debt service	-	644,542	-	644,542
Capital projects	964,164	1,059,274	-	2,023,438
	<u>1,104,058</u>	<u>2,096,179</u>	<u>-</u>	<u>3,200,237</u>
	<u>\$ 1,196,495</u>	<u>\$ 2,719,676</u>	<u>\$ 2,222,960</u>	<u>\$ 6,139,131</u>

Fund Balance Policy

The Township established and maintains reservations of fund balance in accordance with its policy, which applies to the Township's General Fund and all governmental funds. Fund balance is composed of nonspendable, restricted, committed, assigned and unassigned amounts.

Fund balance information is used to identify the available resources to repay long-term debt, reduce property taxes, add new governmental programs, expand existing programs or enhance the financial position of the Township in accordance with policies established by the Board of Supervisors.

Spending Policy

The Township's policy is to first use restricted fund balance when expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available.

The Township's policy is to use unrestricted fund balance in the following order: committed, assigned and unassigned, when expenditure is incurred for purposes for which each of these fund balance classifications is available.

Exeter Township

Notes to Financial Statements

December 31, 2014

Note 8 - Fund Balance (continued)

Minimum Fund Balance Policy

The Township has not formally adopted a minimum fund balance policy.

Committed Fund Balance

The Board of Supervisors is the Township's highest level of decision-making authority. The Township has not formally adopted a policy as to the formal action that is required to be taken to establish, modify or rescind a fund balance commitment.

Assigned Fund Balance

The Township has not formally adopted a policy regarding the body or official authorized to assign amounts to a specific purpose and the policy established by the governing body pursuant to which that authorization is given.

Reservations of Fund Balance

Restricted - General Fund

The Township's restricted fund balance in the General Fund consists of contributions from third parties and funds held which are restricted to be used on specific expenditures.

Restricted - Other Governmental Funds

The Township hereby establishes the following restricted fund balance reserves in the other governmental funds:

K-9 Program Reserve - The Township's restricted fund balance in the K-9 Fund consists of contributions from third parties which are restricted for Exeter Police K-9 Unit expenses.

Highways and Streets Reserve - The Township's restricted fund balance in the State Highway Aid Fund consists of proceeds from the State Motor License Fund accounted for in the State Liquid Fuels Highway Aid Fund. Expenditure of these funds is legally restricted to expenditures for highway purposes in accordance with Department of Transportation regulations.

Capital Project Reserves - The Township's restricted fund balances in the Capital Improvement Fund and the Golf Acquisition Fund consist of unspent bond proceeds which are restricted for specific capital projects. The Township's restricted fund balance in the Traffic Improvement Fund consists of contributions from third parties restricted for expenditures for traffic improvements.

Exeter Township

Notes to Financial Statements

December 31, 2014

Note 8 - Fund Balance (continued)

Reservations of Fund Balance (continued)

Committed - General Fund

The Township's committed fund balance in the General Fund consists of an amount to be used for tree replacement as approved by the Board of Supervisors and contract commitments.

Committed - Other Governmental Funds

The Township established the following committed fund balance reserves in the other governmental funds:

Utility Reserve - is committed as set forth by Township ordinance and consists of funds to be used for public street lighting and fire hydrant services. Revenues are generated from assessments collected from Township residents.

Fire Protection Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for support of the volunteer fire department and is generated from the .505 mill assessment received from Township residents.

Detention Pond/Storm Water Maintenance Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to provide funds for the maintenance of detention ponds and storm water systems within the Township.

Park Improvement Reserve - is committed by the Township Board of Supervisors, as set forth by Township Ordinance, to collect certain fees to be used for park improvement projects within the Township.

Debt Service Reserve - is committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for the repayment of principal and interest on Township debt.

Capital Project Reserves - Township committed fund balances in the Capital Expenditure Fund and Apparatus Fund are committed by the Township Board of Supervisors as set forth in the annual budget and any amendments thereto to provide funds for capital projects.

Disbursement of Fund Balance Reserves

No formal policy has been adopted by the Township regarding disbursement of funds within the fund balance reserves, however, disbursement is approved by the Board of Supervisors by inclusion in the approved annual budget and amendments thereto.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 8 - Fund Balance (continued)

Annual Review and Determination of Fund Balance Reserve Amounts

Compliance with the provisions of this policy shall be reviewed as a part of the annual budget adoption process and the amounts of nonspendable, restricted, committed, assigned and the minimum level of unassigned fund balance shall be determined during this process.

Note 9 - Pension Plans

The Township administers and contributes to two defined benefit pension plans: the Exeter Township Police Pension Plan and the Exeter Township Employees' Pension Plan. The assets of the plans are invested separately and each plan's assets may be used only for the payment of benefits to the members of that plan, in accordance with the terms of the plan.

Valuation of Investments

All investments of the pension plans are reported at fair value based on quoted market values.

Plan Description and Funding Policy

Exeter Township Police Pension Plan

Plan Description

The Exeter Township Police Pension Plan (the Police Plan) provides retirement benefits, as well as death and disability benefits. All benefits vest after 12 years of service. Employees who retire at or after age 50 with 25 years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 50% of their average monthly pay, plus a service increment equal to \$50 per year of service in excess of 25 years of service, up to a maximum service increment of \$100 per month. Average monthly pay is based upon the last 36 months of employment. An option for early retirement is available for employees after completion of 20 years of service.

Contributions

Active, covered employees are required to contribute to the Police Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Police Plan. The current rate is 16.9% of annual covered payroll. Employees currently contribute to the Police Plan at a rate of 8.0% of their compensation for 2014. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 9 - Pension Plans (continued)

Plan Description and Funding Policy (continued)

Exeter Township Employees' Pension Plan

Plan Description

The Exeter Township Employees' Pension Plan (the Employees' Plan) provides retirement benefits, as well as death and disability benefits. All benefits vest at 100% after five years of service. Employees who retire at or after age 62 and completion of five years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1.75% of average monthly pay multiplied by the number of years of service. If a member was a participant prior to December 31, 1995, an additional monthly benefit is payable of \$10 multiplied by the number of years of service as of December 31, 1995. Average monthly pay is based upon the employee's last 36 months of W-2 earnings excluding unused vacation, sick and personal days. An option for early retirement is available for employees who reach the age of 55 and have completed 15 years of service.

Contributions

Active, covered employees are required to contribute to the Employees' Plan. The Township is required by statute, principally Pennsylvania Act 205, to contribute the remaining amounts necessary to finance the Employees' Plan. The current rate is 8.1% of annual covered payroll. Member contributions are currently suspended. Benefit and contribution provisions are established by Pennsylvania law and may be amended only as allowed by Pennsylvania law.

Plan Membership

Membership in the pension plans as of January 1, 2013, the most recent actuarial valuation date, is comprised of the following:

	<u>Police Plan</u>	<u>Employees' Plan</u>
Active employees	29	8
Retirees and beneficiaries currently receiving benefits	11	5
Terminated employees entitled to benefits, but not yet receiving benefits	<u>1</u>	<u>3</u>
	<u>41</u>	<u>16</u>

Exeter Township**Notes to Financial Statements**

December 31, 2014

Note 9 - Pension Plans (continued)**Annual Pension Cost and Net Pension Obligation (Asset)**

The Township's annual pension cost and net pension obligation (asset) to the pension plans for the current year are as follows:

	<u>Police Plan</u>	<u>Employees' Plan</u>
Annual required contribution	\$ 456,349	\$ 115,181
Adjustment to annual required contribution	-	-
Annual pension cost	<u>456,349</u>	<u>115,181</u>
Contributions made	<u>456,349</u>	<u>115,181</u>
Change in net pension obligation (asset)	-	-
Net pension obligation (asset) beginning of year	-	-
Net pension obligation (asset) end of year	<u>\$ -</u>	<u>\$ -</u>

Exeter Township Police Pension Plan

The annual required contribution for the current year was determined as part of the January 1, 2013 actuarial valuation using the entry age normal actuarial cost method. The actuarial assumptions included (a) 8% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-Year Trend Information

<u>Year Ended</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension (Asset)</u>
12/31/12	\$ 387,491	100%	\$ -
12/31/13	424,764	100%	-
12/31/14	456,349	100%	-

Exeter Township**Notes to Financial Statements**

December 31, 2014

Note 9 - Pension Plans (continued)**Annual Pension Cost and Net Pension Obligation (Asset) (continued)****Exeter Township Employees' Pension Plan**

The annual required contribution for the current year was determined as part of the January 1, 2013 actuarial valuation using the entry age normal cost method. The actuarial assumptions included (a) 7.75% investment rate of return and (b) a salary scale of 5%. Provisions for administrative expenses are added to normal cost. The assumptions included postretirement mortality, preretirement mortality, disability, percent married and withdrawal provisions. Retirement is based upon normal retirement age. Annual investment gain (excess of actual investment income, including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Three-Year Trend Information

Year Ended	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension (Asset)
12/31/12	\$ 93,998	100%	\$ -
12/31/13	99,466	100%	-
12/31/14	115,181	100%	-

Funded Status and Funding Progress

The funded status of Exeter Township's Police Pension Plan as of January 1, 2013, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 11,057,915	\$ 13,363,704	\$ 2,305,789	83%	\$ 2,717,672	85%

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 9 - Pension Plans (continued)

Funded Status and Funding Progress (continued)

The funded status of Exeter Township's Employees' Pension Plan as of January 1, 2013, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 1,029,208	\$ 1,496,670	\$ 467,462	69%	\$ 556,565	84%

The Schedules of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits. The information about the funded status is prepared using the entry age normal actuarial cost method.

Note 10 - Central Pennsylvania Teamsters Pension Fund

The Township contributes to the Central Pennsylvania Teamsters Pension Fund, a union sponsored, multiemployer retirement plan in accordance with negotiated labor contracts. The plan covers all of the Township's eligible union employees. Contributions to the plan are based on varying rates for hours worked by the employees. Contributions totaled \$177,940 for the year ended December 31, 2014.

Governmental regulations impose certain requirements relative to multiemployer plans. In the event of plan termination or employer withdrawal, an employer may be liable for a portion of the plan's unfunded vested benefits. The Township has not received information from the plan's administrators to determine its share of unfunded vested benefits. The Township does not anticipate withdrawal from the plan, nor is the Township aware of any expected plan termination.

Note 11 - Post-Employment Benefits Other than Pensions

Plan Descriptions

The Township sponsors a post-employment benefit plan that covers health and life insurance benefits for eligible retirees. Groups of retirees that are eligible for these benefits are police, teamsters and management. The plan does not issue a publicly available financial report. Benefit provisions are established and amended through negotiations between the Township and the respective union.

Exeter Township
 Notes to Financial Statements
 December 31, 2014

Note 11 - Post-Employment Benefits Other than Pensions (continued)

Funding Policy and Annual OPEB Cost

The Township currently funds other post-employment benefit (OPEB) costs as they occur. For 2014, the Township's contribution to the plan was \$111,716 for current premiums, including the implicit rate study.

The Township's annual other OPEB cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The Township's annual OPEB cost for the current year and the related information for each plan are as follows:

Annual required contribution (ARC)	\$ 948,327
Interest on net OPEB obligation	173,166
Adjustment to the annual required contribution	<u>(236,243)</u>
Annual OPEB cost	885,250
Contributions made	<u>(111,716)</u>
Increase in net OPEB obligation	773,534
Net OPEB obligation at beginning of year	<u>3,848,135</u>
Net OPEB obligation at end of year	<u>\$ 4,621,669</u>

The Township's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation for each of the plans were as follows:

Year Ended	Annual OPEB Cost (APC)	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/12	\$ 802,299	10%	\$ 3,151,060
12/31/13	790,495	12%	3,848,135
12/31/14	885,250	13%	4,621,669

Funded Status and Funding Progress

The funded status of the plan as of January 1, 2014, the most recent actuarial valuation, was as follows:

Actuarial present value at attained age (APVAA):	
Active members	\$ 12,581,563
Retired members	<u>964,086</u>
Total APVAA	<u>\$ 13,545,649</u>

Exeter Township
 Notes to Financial Statements
 December 31, 2014

Note 11 - Post-Employment Benefits Other than Pensions (continued)

Funded Status and Funding Progress (continued)

Actuarial accrued liability (AAL):	
Active members	\$ 7,631,983
Retired members	<u>964,086</u>
Total AAL	<u>\$ 8,596,069</u>
Actuarial value of assets (AVA)	<u>\$ -</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 8,596,069</u>
Funded ratio	<u>-%</u>
Covered payroll	<u>\$ 5,082,182</u>
Unfunded actuarial accrued liability (funding excess) as a percentage of covered payroll	<u>169%</u>
Annual required contribution (ARC):	
Normal cost	\$ 420,601
30-year amortization of UAAL	<u>527,726</u>
Total ARC	<u>\$ 948,327</u>

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required Schedules of Funding Progress presented as supplementary information provide multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial liability for benefits.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 11 - Post-Employment Benefits Other than Pensions (continued)

Actuarial Methods and Assumptions

Projections of benefits are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between the Township and the plan members to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions are as follows:

Actuarial valuation date	January 1, 2014
Actuarial cost method	Entry age normal
Amortization method	Level dollar method
Remaining amortization period	30-year closed period
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	4.50% per annum
Projected salary increases	5.00% per annum
Healthcare inflation rate	6.5% in 2014, decreasing by 0.5% each year to 5.5% in 2016

Note 12 - Exeter Township Tax Increment Financing District

In March 2008, the Township, along with the County of Berks and the Exeter Township School District, entered into a Cooperation Agreement with the Berks County Industrial Development Authority (the Authority). The Authority has prepared a Tax Increment Financing (TIF) Plan referred to as the Exeter Township TIF District. The agreement sets forth the terms by which Tax Increment Revenues shall be raised from the Exeter Township TIF District and the means of financing.

Under the terms of this agreement, the taxing bodies (the Township, the County of Berks and the Exeter Township School District) will remit their respective share of the positive real estate tax increments to the Authority. The Authority will deposit these funds into the Tax Increment Fund established for this project and use these funds for repayment of debt service incurred in connection with the project. The Exeter Township TIF District began on December 1, 2007 and has a term of 20 years.

In 2014, the Township remitted \$59,352 to the Authority. This amount represents less than 2% of total real estate taxes collected by the Township.

At December 31, 2014, the outstanding balance was \$4,999,000. The Township has guaranteed the Series of 2008 Tax Incremental Financing Revenue Note issued by the Authority.

Exeter Township

Notes to Financial Statements

December 31, 2014

Note 13 - Commitments and Contingencies

Commitments

Capital Projects

The Township is committed to make payments on various capital construction projects in the approximate amount of \$76,000 at December 31, 2014.

Recycling Contract

In 2014, the Township extended an agreement for the processing and marketing of recycling materials. The contract extension is for a term of two years beginning January 1, 2015 and ending December 31, 2016. Minimum payments under this agreement for the years ending December 31, 2015 and December 31, 2016 are \$200,183 and \$200,183, respectively.

Leases

The Township has entered into lease agreements, as lessee, for financing the acquisition of vehicles and other equipment. The leases have expiration dates extending through 2018.

As of December 31, 2014, the future minimum lease payments are as follows for the year ending December 31:

2015	\$	86,647
2016		50,700
2017		4,286
2018		<u>2,122</u>
	\$	<u>143,755</u>

Contingencies

Litigation

The Township is a defendant in lawsuits that have been referred to the lawyers who represent the Township's insurance carrier. While it is not feasible to determine the outcome of these matters, in the opinion of management, any total ultimate liability would not have a material effect on the Township's financial position.

Concentration of Labor

The Township entered into a collective bargaining agreement with the Police Officers Association effective January 1, 2014 through December 31, 2016. The Township also entered into a collective bargaining agreement with the nonuniform employees, effective January 1, 2015 through December 31, 2017. Of the Township's total workforce, 40% is covered by the agreement with the police officers and 49% is covered by the agreement with the nonuniform employees.

Exeter Township

Notes to Financial Statements
December 31, 2014

Note 14 - Subsequent Events

The Township has evaluated subsequent events through June 3, 2015. This date is the date the financial statements were available to be issued. No material events subsequent to December 31, 2014 were noted.

Exeter Township

Schedules of Funding Progress

Exeter Township Police Pension Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2009	\$ 8,211,475	\$ 10,186,585	\$ 1,975,110	80.6%	\$ 2,538,835	77.8%
January 1, 2011	9,759,266	11,371,131	1,611,865	85.8%	2,552,468	63.1%
January 1, 2013	11,057,915	13,363,704	2,305,789	82.7%	2,717,672	84.8%

Exeter Township Employees' Pension Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2009	\$ 566,223	\$ 1,081,790	\$ 515,567	52.3%	\$ 535,326	96.3%
January 1, 2011	787,611	1,320,042	532,431	59.7%	546,007	97.5%
January 1, 2013	1,029,208	1,496,670	467,462	68.8%	556,565	84.0%

Exeter Township Post-Employment Benefits Other than Pensions

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Underfunded AAL UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
January 1, 2008	\$ -	\$ 5,314,263	\$ 5,314,263	-	\$ 4,718,187	112.6%
January 1, 2011	-	7,207,203	7,207,203	-	4,995,780	144.3%
January 1, 2014	-	8,596,069	8,596,069	-	5,082,182	169.1%

Exeter Township**Budgetary Comparison Schedule - Modified Cash Basis - General Fund**

	Year Ended December 31, 2014			
	Budgeted Amounts		Actual Amounts	Variance with Final Budget
	Original	Final		
Revenues				
Taxes:				
Real estate	\$ 2,415,715	\$ 2,415,715	\$ 2,458,587	\$ 42,872
Real estate transfer	250,000	250,000	331,340	81,340
Per capita	72,180	72,180	67,621	(4,559)
Earned income	3,232,000	3,232,000	3,342,864	110,864
Local services	316,200	316,200	329,174	12,974
Business privilege	437,688	437,688	474,185	36,497
Licenses and permits	388,400	388,400	306,061	(82,339)
Fines and forfeits	131,650	131,650	127,620	(4,030)
Interest and rents	42,188	42,188	35,134	(7,054)
Intergovernmental revenues	891,740	891,740	950,230	58,490
Charges for services	1,125,815	1,125,815	1,126,683	868
Miscellaneous	63,000	63,000	170,827	107,827
Total Revenues	9,366,576	9,366,576	9,720,326	353,750
Expenditures				
Current:				
General government	747,763	747,763	772,880	(25,117)
Public safety	5,364,487	5,364,487	5,334,830	29,657
Health and human services	23,900	23,900	26,383	(2,483)
Public works - sanitation	200,000	200,000	195,796	4,204
Public works - highways and streets	1,736,830	1,736,830	1,766,561	(29,731)
Culture and recreation	588,554	588,554	578,730	9,824
Community development	40,000	40,000	43,879	(3,879)
Debt service:				
Principal	-	-	295,475	(295,475)
Interest	354,435	354,435	65,488	288,947
Benefits	43,089	43,089	113,710	(70,621)
Property and casualty insurance	164,628	164,628	189,753	(25,125)
Capital outlay	192,749	192,749	131,534	61,215
Miscellaneous	180,250	180,250	172,787	7,463
Total Expenditures	9,636,685	9,636,685	9,687,806	(51,121)
Excess (Deficiency) of Revenues over (under) Expenditures	(270,109)	(270,109)	32,520	302,629

Exeter Township**Budgetary Comparison Schedule - Modified Cash Basis - General Fund (continued)**

	Year Ended December 31, 2014			
	Budgeted Amounts		Actual Amounts	Variance with Final Budget
	Original	Final		
Other Financing Sources (Uses)				
Transfers in	\$ 2,250	\$ 2,250	\$ 380	\$ (1,870)
Transfers out	-	-	(60,100)	(60,100)
Sale of assets	-	-	28,215	28,215
Total Other Financing Sources (Uses)	2,250	2,250	(31,505)	(33,755)
Net Change in Fund Balances	\$ (267,859)	\$ (267,859)	1,015	\$ 268,874
Fund Balance at Beginning of Year			2,937,879	
Fund Balance at End of Year			\$ 2,938,894	

Exeter Township

Note to Budgetary Comparison Schedule
December 31, 2014

Note 1 - Budget Matters

The Board of Supervisors annually adopts the budget for the General, Utility, Fire, Park Improvement, State Liquid Fuels Highway Aid, Capital Expenditure, Capital Improvement, Golf Acquisition, Apparatus, Traffic Improvement, Debt Service, Sewer and Country Club Funds. Budgetary control is legally maintained at the fund level.

The Second Class Township Code provides for the modification of the budget and supplemental appropriations and transfers.

Appropriations, except open project appropriations, encumbrances and unexpended grant appropriations, lapse at the end of each fiscal year.

The budget is prepared on the same modified cash basis of accounting as applied to the governmental funds in the basic financial statements.

Exeter Township

Combining Statement of Assets and Fund Balances - Modified Cash Basis - Other Governmental Funds

December 31, 2014

	Special Revenue Funds					Capital Project Funds						Debt Service Fund	Total Other Governmental Funds
	Utility	Fire	Detention Pond/ Storm Water	K-9	Park Improvement	State Liquid Fuels Highway Aid	Capital Expenditure	Capital Improvement	Golf Acquisition	Apparatus	Traffic Improvement		
Assets													
Cash													
- Interest due	\$ 26,546	\$ 230,981	\$ 81,830	\$ -	\$ 53,207	\$ -	\$ 554,870	\$ -	\$ -	\$ 504,404	\$ -	\$ -	\$ 1,451,837
Restricted	-	-	-	10,932	-	128,992	-	213,394	713,018	-	37,752	644,542	1,748,600
Total Assets	\$ 26,546	\$ 230,981	\$ 81,830	\$ 10,932	\$ 53,207	\$ 128,992	\$ 554,870	\$ 213,394	\$ 713,018	\$ 504,404	\$ 37,752	\$ 644,542	\$ 3,200,237
Fund Balances													
Restricted	\$ -	\$ -	\$ -	\$ 10,932	\$ -	\$ 128,992	\$ -	\$ 213,394	\$ 713,018	\$ -	\$ 37,752	\$ -	\$ 1,104,088
Committed	26,545	230,981	81,830	-	53,207	-	554,870	-	-	504,404	-	644,542	2,096,179
Total Fund Balances	\$ 26,545	\$ 230,981	\$ 81,830	\$ 10,932	\$ 53,207	\$ 128,992	\$ 554,870	\$ 213,394	\$ 713,018	\$ 504,404	\$ 37,752	\$ 644,542	\$ 3,200,237

Exeter Township

Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Modified Cash Basis - Other Governmental Funds

	Year Ended December 31, 2014												
	Special Revenue Funds					Capital Project Funds					Debt Service Fund	Total Other Governmental Funds	
	Utility	Fire	Detention Pond/ Storm Water	K-8	Park Improvement	State Liquid Fuels Highway Aid	Capital Expenditure	Capital Improvement	Golf Acquisition	Apparatus			Traffic Improvement
Revenues													
Taxes real estate	\$ 207,728	\$ 641,588	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 688,758	\$ 1,548,050
Interest and rents	231	1,482	238	32	157	1,021	42,868	741	2,233	1,088	127	1,188	51,430
Intergovernmental revenues	-	98,898	-	-	-	842,428	-	-	-	-	-	-	741,324
Charges for services	-	-	-	-	38,822	-	-	-	-	-	-	-	38,822
Miscellaneous	-	-	4,820	1,583	-	-	12,500	-	1,880	-	-	-	28,573
Total Revenues	207,957	741,944	5,058	1,625	38,770	843,448	55,368	741	3,883	1,088	127	688,967	2,400,889
Expenditures													
Current													
Public safety	110,228	621,952	-	-	-	-	41,373	-	-	-	-	-	773,553
Public works - highways and streets	94,810	-	-	-	-	229,243	-	-	-	-	5,835	-	328,888
Culture and recreation	-	-	-	-	54,357	-	-	-	-	-	-	-	54,357
Community development	2,178	-	-	-	-	-	-	-	-	-	-	13,297	15,473
Debt service													
Principal	-	18,703	-	-	-	81,874	41,915	-	-	-	-	50,000	173,482
Interest	-	-	-	-	-	3,385	-	-	-	-	-	814,123	817,488
Capital outlay	-	-	-	-	-	328,388	42,388	81,524	57,373	-	-	-	480,680
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	323	323
Total Expenditures	207,214	641,655	-	-	54,357	823,877	125,678	81,524	57,373	-	5,835	877,743	2,655,054
Excess (Deficiency) of Revenues over (under) Expenditures	743	100,289	5,058	1,625	(14,576)	19,572	(70,307)	(80,783)	(53,480)	1,088	(6,508)	(177,786)	(254,085)
Other Financing Sources (Uses)													
Transfers in	-	-	-	-	-	-	60,100	10,000	-	137,917	-	280,000	488,017
Transfers out	(10,000)	(137,917)	-	(380)	-	-	-	-	-	-	-	-	(148,287)
Total Other Financing Sources (Uses)	(10,000)	(137,917)	-	(380)	-	-	60,100	10,000	-	137,917	-	280,000	339,720
Net Change in Fund Balances	(8,257)	(37,628)	5,058	1,245	(14,578)	19,572	(10,207)	(50,783)	(53,480)	138,018	(6,508)	102,214	85,685
Fund Balances at Beginning of Year	35,802	288,608	76,571	8,887	87,785	108,380	885,077	284,177	786,408	385,388	43,280	542,328	3,114,572
Fund Balances at End of Year	\$ 28,545	\$ 250,980	\$ 81,629	\$ 10,132	\$ 53,207	\$ 128,952	\$ 554,870	\$ 213,384	\$ 713,018	\$ 504,404	\$ 37,752	\$ 644,542	\$ 3,200,237