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June 7, 2021

Mr. Scott D. Fogelsanger
Senior Manager - Business Development
Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

RE: UVE Market Value Appraisal of York City Sewer Authority's Wastewater Collection and Treatment System

Enclosed is AUS Consultants' fair market value appraisal report for York City's wastewater collection and treatment system (System) as of April 6, 2021, prepared for Pennsylvania American Water Company (PAWC). The report was prepared based on the 2020-2021 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statues (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 York City's wastewater System's property, plant, and equipment operating as a Pennsylvania rate regulated wastewater utility is $240,336,741 determined based on the cost, income, and market approaches to value, as detailed in the following table:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

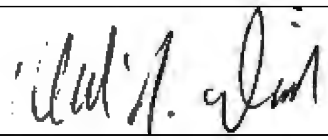
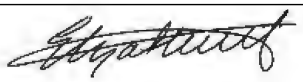
Fair Market Value Appraisal

Appraisal Approach		Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach				
Inventory of Assets				
Original Cost ($OC)		155,875,776		
Depreciated Original Cost ($OCLD)		97,106,105		
Intangible Assets (Treatement contracts)		18,621,674		
Cost Approach of all assets Conclusion		115,727,779		
Replacement Cost				
Replacement Cost New (COR)		474,152,569		
Depreciated Replacement Cost New (CORLD)	**$**	**218,366,227**		
External or Economic Obsolescence	**$**	-	AUS Input	
Market Value of Tangible Assets	**$**	**218,366,227**		
Intangible Assets (Treatement contracts)	$	18,621,674		
Cost Approach of all assets Conclusion		**236,987,901**		
Cost Approach Conclusion		**236,987,901**	**50%**	**118,493,951**
Income Approach				
Required Rate Increases: 30% period 3,25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)		249,288,076		
Income Approach Conclusion		**249,288,076**	**40%**	**99,715,230**
Market Approach				
Market Comparables (to)				
OCLD		214,026,955		
CORLD		221,275,603		
Customers		193,268,502		
Cash Flows (EBITDA)		249,742,796		
Market Financials (to)				
OCLD		204,893,882		
Market Approach Conclusion		**221,275,603**	**10%**	**22,127,560**
Appraisal Conclusion	**$**	**240,336,741**	**100%**	**240,336,741**
Conclusion (cost approach)	**$**	**236,987,901**		

As the purpose of this appraisal was to fulfill the requirements of Act 12 in the establishment of value for rate making of the York City's wastewater collection system's property, plant and equipment, the appraisal's conclusion of $240,336,741 is consistent with the purpose of this appraisal. As the cost approach work papers detail 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 allocate the appraisal conclusion to establish the booked value for future accounting and rate making.

Respectfully Submitted,
AUS Consultants, Depreciation & Valuation
June 7, 2021

By:

	
Jerome C. Weinert, AM, 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

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P.E.: Registered Professional Engineer State of Wisconsin
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York City Sewer Authority's
Wastewater Collection and Treatment System

Fair Market Value Appraisal Report
As of April 6, 2021
for
Pennsylvania American Water Company

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AUS CONSULTANTS

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June 7, 2021

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Mechanicsburg, Pennsylvania

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RE: UVE Market Value Appraisal of York City's Wastewater Collection and Treatment System

Enclosed is AUS Consultants' fair market value appraisal report of the York City's (Pennsylvania) wastewater collection and treatment system (System) as of April 6, 2021, prepared for our client Pennsylvania American Water Company (PAWC). The report was prepared based on the 2020-2021 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) Statues 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 York City's wastewater collection and treatment system's property, plant, and equipment operating as Pennsylvania rate regulated wastewater utility is $240,336,741 determined based on the cost, income, and market approaches to value, as detailed in the following table:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Fair Market Value Appraisal

Appraisal Approach		Investor-owned Utility	Weight	Wtd Valuation Indications
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Appraisal Conclusion	**$**	**240,336,741**	**100%**	**240,336,741**
Conclusion (cost approach)	**$**	**236,987,901**		

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 the York City's wastewater system's property, plant and equipment this appraisal's conclusion of $240,455,235 is consistent with the purpose of the appraisal. As the cost approach work papers detail 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 allocate the appraisal conclusion to establish the booked value for future accounting and rate making.

Respectfully Submitted,
AUS Consultants, Depreciation & Valuation
June 7, 2021

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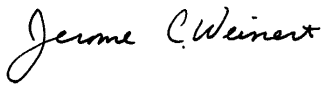	
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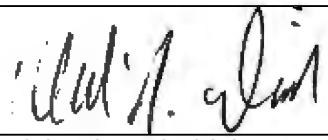	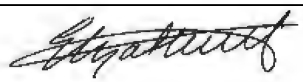
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APPRAISAL CERTIFICATION
for the Fair Market Appraisal of
York City Sewer Authority, Pennsylvania's
Wastewater Collection and Treatment System
As of April 6, 2021
Prepared for
Pennsylvania American Water Company

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.

- Prior to this appraisal during the last three-year period, AUS Consultants has not previously 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.

- Neither AUS Consultants, Depreciation & Valuation, nor its professional staff has 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 2020-2021 Edition.

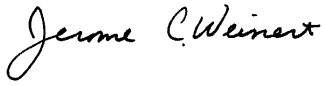
- The signers of this report have made personal inspections of the property that is the subject of this report.

- No individuals provided significant professional assistance to the persons signing this report. However, Scott Fogelsanger of Pennsylvania American Wastewater Company provided assistance in obtaining information and data from the York City, Pennsylvania and the Engineer's Assessment report prepared by Buchart Horn Engineers which was the inventory starting point of the Cost Approach.

AUS CONSULTANTS

AUS Consultants, Depreciation & Valuation
June 7, 2021

By: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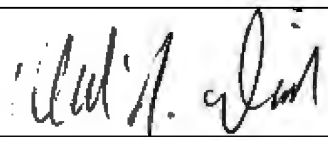	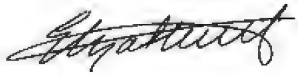
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NARRATIVE REPORT

EXECUTIVE SUMMARY

The purpose of this value appraisal is the determination of the fair market value of the property plant and equipment of the York City's wastewater collection and treatment system (System) for our client Pennsylvania American Water Company (PAWC). The report was prepared based on the 2020-2021 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statues 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 (PA 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 the System'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's tangible assets 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 most of the property's cost new was determined based on its reproduction/replacement cost new. However, for the easements and land the replacement cost were developed based on current costs.

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, York City's investment in wastewater collection 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 Buchart Horn Engineers (Engineer's Assessment tab) as the starting point of the Cost Approach. Utilizing the Engineer's Assessment AUS Consultants developed the System's original cost less depreciation (OCLD) and replacement cost new less depreciation (CORLD) in property, plant and equipment on April 6, 2021 (Cost Approach tab).

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

[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

indexes 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 which includes the Commonwealth of Pennsylvania, the 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
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(3)				
		(3a)	(3b)	(3c)	(3d)	(3e)
Account Number	Description	Costing Parameters				Reproduction to Replacement Cost Factor
		Index Series	Table	Line Reference	Lookup	AUS Input
353.00	Land & Land Rights - Land	USBLS	PPI	3.00	USBLS3	1.00
353.05	Land & Land Rights - Easements	USBLS	PPI	3.00	USBLS3	1.00
354.30	Stuctures & Improvements - Pumping	HW	W-1	8.00	HWW-18	1.00
354.40	Stuctures & Improvements - Treatment	HW	W-1	15.00	HWW-115	1.00
355.30	Generating Equipment - Pumping	USBLS	PPI	4.00	USBLS4	1.00
360.21	Collection Sewers - Force - Mains	HW	W-1	44.00	HWW-144	1.00
361.00	Mains Gravity	HW	W-1	44.00	HWW-144	1.00
361.70	Collection Sewers - Gravity - Manholes	HW	W-1	45.00	HWW-145	1.00
363.00	Service Laterals	HW	W-1	39.00	HWW-139	1.00
364.00	Flow Measuring Devices	HW	W-1	40.00	HWW-140	1.00
371.20	Pumping Equipment	HW	W-1	9.00	HWW-19	1.00
380.00	Treatment and Disposal Equipment	HW	W-1	17.00	HWW-117	1.00
390.00	Office Furniture and Equipment	AUS	T-1	15.00	AUST-115	1.00
391.00	Transportation Equipment	AUS	T-1	4.00	AUST-14	1.00
394.00	Laboratory Equipment	AUS	T-1	7.00	AUST-17	1.00

Using the trended original cost method, the System's investment in plant, property and equipment of $155,875,776.15 was determined to have a reproduction cost new of $470,735,872 and a replacement cost new of $474,152,569 as summarized in the following table:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(9)	(10)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Original Cost	Costing Parameter	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
			OC $s			RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input			AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Original Cost	Cost Index Table	Translator	RCN	COR / RCN Factor	COR
353.00	353.00	Land & Land Rights - Land	40,501.00	USBLS3	4.42	179,118	19.69	3,527,270
353.05	353.05	Land & Land Rights - Easements	94,374.54	USBLS3	18.29	1,726,290	1.04	1,794,835
354.30	354.30	Stuctures & Improvements - Pumping	141,754.43	HWW-18	4.21	596,786	1.00	596,786
354.40	354.40	Stuctures & Improvements - Treatment	85,546,239.79	HWW-115	2.73	233,812,447	1.00	233,812,447
355.30	355.30	Generating Equipment - Pumping	15,032.64	USBLS4	2.71	40,784	1.00	40,784
360.21	360.21	Collection Sewers - Force - Mains	42,592.47	HWW-144	3.90	166,068	1.00	166,068
361.00	361.00	Mains Gravity	26,712,768.07	HWW-144	3.33	88,834,842	1.00	88,834,842
361.70	361.70	Collection Sewers - Gravity - Manholes	5,351,533.58	HWW-145	6.08	32,534,869	1.00	32,534,869
363.00	363.00	Service Laterals	2,039,891.94	HWW-139	21.62	44,097,551	1.00	44,097,551
364.00	364.00	Flow Measuring Devices	90,155.20	HWW-140	1.58	142,103	1.00	142,103
371.20	371.20	Pumping Equipment	36,252.00	HWW-19	9.88	358,069	1.00	358,069
380.00	380.00	Treatment and Disposal Equipment	34,672,151.67	HWW-117	1.93	66,780,665	1.00	66,780,665
390.00	390.00	Office Furniture and Equipment	60,303.60	AUST-115	1.10	66,154	1.00	66,154
391.00	391.00	Transportation Equipment	436,060.94	AUST-14	1.28	556,990	1.00	556,990
394.00	394.00	Laboratory Equipment	596,164.28	AUST-17	1.41	843,136	1.00	843,136
		Grand Total	155,875,776.15	-	3.02	470,735,872	1.01	474,152,569

Easements - For easements, the appraisal date cost to obtain and register an easement was developed as follows:

Current cost of Easements

Activity	Engineer	Legal	Fees	Total
Determine the facilities for which a Easment is need	1	0	0	
Locate the Land owner for the property needing a easement	1	1	0	
Develop a diagram o the Property, the facilities, and the easement	2	0	0	
Develop the easement document	1	1	0	
Visit the property owner to obtain permission for the easement and sign the easment documentation	4	0	0	
Register the easement with the Municipal Clerk	0	1	250	
Total	9	3	250	
Labor Costs per Hour	54	100		
Total Cost	486	300	250	1,036

Land - For the land associated with the wastewater treatment plant (30.38 acres) appraisal date value was determined based on $116,105 per acre based on market sales and offerings in the City of York near and around the wastewater treatment plant.

Price					
For sale & UC/Pending	$ 45,000	$ 1,218,001	$ 839,700	$ 5,000,000	30
Sold Transactons	$ 1,760	$ 911,748	$ 450,000	$ 6,500,000	33
Parcel Size (acres)					
For sale & UC/Pending	0.21	15.87	5.395	116.87	34
Sold Transactons	0.06	12.17	1.59	202.61	49
Price per Acre					
For sale & UC/Pending	$ 23,260	$ 77,740	$ 150,357	$ 1,244,344	30
Sold Transactons	$ 164	$ 45,943	$ 116,105	$ 1,936,000	23
Days on the Market					
For sale & UC/Pending	45	1,433	859	7,775	34
Sold Transactons	26	557	250	4,920	26
Sale Price to Asking Price Ratio					
Sold Transactons	55.70%	81.03%	79.31%	108.33%	6.00%

The individual land sales are contained in the Land Sales section of the workpapers.

Replacement Cost New Less Depreciation - The replacement cost described above reflects the cost of new property; however, York City's Sewer Authority's wastewater collection and treatment 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

[4] The Dictionary of Real Estate Appraisal, 4th Edition

efficient of 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.

Based on our experience in regard to water and wastewater depreciation studies and our analysis of York City's wastewater collection and treatment system operating performance; we found that the York City's wastewater utility's property experiences normal depreciation but not any significant functional obsolescence; economic obsolescence is best evaluated after the results of the income and market approaches to values are determined (see Cost Approach Revisited).

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 and depreciation studies filed with PAWC and Aqua America rate cases. With each of their recent rate case filings PAWC and Aqua America have filed depreciation studies in support of their depreciation service lives and associated depreciation expenses contained within their revenue requirements. The depreciation studies were prepared by Gannett Fleming Rate Consultants a recognized firm in the depreciation consulting area. AUS Consultants has reviewed the PAWC studies which are summarized in the following table:

[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.

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)	(4a)	(4b)	(5)	(6)	(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve		Normal Service Life	Economic Obsolescence	Tax Depreciation		
				years	% of CORLD		Table	Life
353.00	Land & Land Rights - Land	ZNonDep		0.00	0.00%	Non-Depr		0.00
353.05	Land & Land Rights - Easements	ZNonDep		0.00	0.00%	Non-Depr		0.00
354.30	Stuctures & Improvements - Pumping	R4.0		45.00	0.00%	MACRS		25.00
354.40	Stuctures & Improvements - Treatment	R4.0		55.00	0.00%	MACRS		25.00
355.30	Generating Equipment - Pumping	R3.0		35.00	0.00%	MACRS		25.00
360.21	Collection Sewers - Force - Mains	R3.0		75.00	0.00%	MACRS		25.00
361.00	Mains Gravity	R2.5		80.00	0.00%	MACRS		25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0		75.00	0.00%	MACRS		25.00
363.00	Service Laterals	R3.0		50.00	0.00%	MACRS		25.00
364.00	Flow Measuring Devices	S2.0		30.00	0.00%	MACRS		25.00
371.20	Pumping Equipment	R3.0		35.00	0.00%	MACRS		25.00
380.00	Treatment and Disposal Equipment	R2.0		45.00	0.00%	MACRS		25.00
390.00	Office Furniture and Equipment	R3.0		12.00	0.00%	MACRS		12.00
391.00	Transportation Equipment	R3.0		15.00	0.00%	MACRS		10.00
394.00	Laboratory Equipment	R3.0		20.00	0.00%	MACRS		20.00

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 formulas:

$$\text{Depreciation (\%)} = \frac{\text{Age (years) x100\%}}{\text{Service Life (years)}}$$

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

where: the property's Service Life = Age + Remaining Life and
Remaining Life = *f*(Survival Characteristic, Service Life, and Age)

However, due to the age of some of the assets the extent of the depreciation was limited to 85% of the asset's original cost and its replacement cost new.

When the above depreciation lives are used to quantify the property's depreciation is applied to the replacement cost new (COR) of $474,152,569 the resultant COR less normal depreciation (CORLD) was found to be $218,366,227 detailed as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	City of York Wastewater Assets Detail by Buchart Horn Engineers		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.00	Land & Land Rights - Land	73.39	3,527,270	ZNonDep	-	-	-	-	3,527,270
353.05	Land & Land Rights - Easements	93.94	1,794,835	ZNonDep	-	-	-	-	1,794,835
354.30	Stuctures & Improvements - Pumping	40.50	596,786	R4.0	45.00	9.04	49.54	45.00	108,901
354.40	Stuctures & Improvements - Treatment	33.18	233,812,447	R4.0	55.00	25.40	58.57	55.00	106,434,616
355.30	Generating Equipment - Pumping	40.50	40,784	R3.0	35.00	5.25	45.75	35.00	6,118
360.21	Collection Sewers - Force - Mains	40.50	166,068	R3.0	75.00	37.88	78.38	75.00	80,258
361.00	Mains Gravity	42.65	88,834,842	R2.5	80.00	44.32	86.97	80.00	46,659,867
361.70	Collection Sewers - Gravity - Manholes	65.46	32,534,869	S2.0	75.00	25.66	91.12	75.00	9,902,159
363.00	Service Laterals	76.98	44,097,551	R3.0	50.00	8.44	85.42	50.00	7,389,193
364.00	Flow Measuring Devices	13.75	142,103	S2.0	30.00	18.72	32.47	30.00	85,852
371.20	Pumping Equipment	47.62	358,069	R3.0	35.00	7.11	54.73	35.00	71,710
380.00	Treatment and Disposal Equipment	18.98	66,780,665	R2.0	45.00	29.75	48.74	45.00	41,866,791
390.00	Office Furniture and Equipment	6.50	66,154	R3.0	12.00	6.06	12.56	12.00	31,919
391.00	Transportation Equipment	26.49	556,990	R3.0	15.00	2.67	29.17	15.00	97,104
394.00	Laboratory Equipment	19.09	843,136	R3.0	20.00	7.54	26.63	20.00	309,634
Grand Total		39.75	474,152,569		58.42	27.62	66.47	0.46	218,366,227

The preliminary cost approach to value of York City's tangible wastewater system property was found to be $218,366,227.

Intangible Assets

In addition to the above-described tangible assets are the intangible assets, in York City's case which consist of the contracts associated with its wastewater treatment contracts with the following seven communities:

York City Wastewater System

Municipality	Residential	Commercil / Industrial	Total		2020 Budget Revenues
Collection & Treatment					
City of York	~~17,360~~	~~1,302~~	~~18,662~~	**13,733**	**2,941,956**
Treatment Contracts					
Manchester Township	3,834	129	3,963		975,132
North York	718	64	782		131,363
Spring Garden Township	3,463	235	3,698		1,073,344
Springettsbury Township					273,842
West Manchester Township	2,180	318	2,498		976,106
West York Borough	1,510	160	1,670		889,714
York Township	3,012	205	3,217		1,035,977
Treatment Only	**14,717**	**1,111**	**15,828**		**5,355,478**
Treatment Only	~~32,077~~	~~2,413~~	~~34,490~~		**8,297,434**

Note: Customers as of 12-31-2018
City of York Updated to 13,733

These contracts represent value assets which are included in the overall income and market approaches which are not specifically addressed in the cost approach of the tangible assets; therefore, in order to make the cost approach comparable to the income and market approaches these intangible assets were separately appraised and included in the cost approach totals. AUS Consultants developed both a market and income approach estimate to the value of the above contracts.

Market Approach to Treatment Contracts – The previous water and wastewater Section 1329 acquisitions were analyzed which allowed for the determination of the purchase price per customer separately for wastewater collection and treatment and wastewater collection only which allowed for the estimation of the purchase price per customer for wastewater treatment only as follows:

Description of Service	Purchase Price per Customer	
	Mean	Median
Water Distribution and Treatment	6,123	5,021
Wastewater Collection and Treatment	9,579	8,754
Wastewater Collection	6,507	6,636
Wastewater Treatment Only	3,072	2,118

Based on the above analysis the market values of the wastewater treatment contracts were estimated as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Municipality	Residential	Commercil / Industrial	Total	Market Value Per Treatment only customer	Market Value of Treatment Contract
Manchester Township	3,834	129	3,963	2,118.00	8,393,634
North York	718	64	782	2,118.00	1,656,276
Spring Garden Township	3,463	235	3,698	2,118.00	7,832,364
West Manchester Township	2,180	318	2,498	2,118.00	5,290,764
West York Borough	1,510	160	1,670	2,118.00	3,537,060
York Township	3,012	205	3,217	2,118.00	6,813,606
Total	14,717	1,111	15,828		33,523,704

Income Approach to Treatment Contracts – AUS Consultants also developed an income approach analysis of the wastewater treatment contracts. Using the 2020 budget estimate the revenues and expenses of the wastewater treatment contracts in order to develop the estimated operating income as a surrogate for the cash flows associated the wastewater treatment contracts. The estimated cash flows were next discounted to appraisal date values using the cost of capital of 5.79% i.e., the cost of capital of 7.72% with the embedded growth rate of 1.82% removed; the development which is described in the Cost of Capital section of the workpapers. The income approach to the wastewater treatment contracts was developed as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Income Approach to Treatment Agreements Valuation

Municipality	2019 YTD Projected	2020 Proposed Budget	Expenses	Operating Income	Value Capitalized @ 5.79%
					5.79%
Manchester Township					
Treatment Charge	934,716	975,132			
Sewer charge	1,348	-			
Subtotal Manchester Twp	936,064	975,132	778,813	196,319	3,390,656
North York Borough					
Treatment Charge	162,028	131,363			
Sewer charge	1,698	-			
Subtotal North York Borough	163,726	131,363	104,916	26,447	456,770
Spring Garden Township					
Treatment Charge	1,254,860	1,073,344			
Sewer charge	12,122	-			
Subtotal Spring Garden Twp	1,266,982	1,073,344	857,252	216,092	3,732,159
Springettsbury Township					
Treatment Charge	230,000	230,000			
Sewer charge	66,968	43,842			
Subtotal Springettbury Twp	296,968	273,842	218,711	55,131	952,176
West Manchester Township					
Treatment Charge	1,165,146	976,106			
Sewer charge	12,909	-			
Subtotal West Manchester Twp	1,178,055	976,106	779,591	196,515	3,394,041
West York Borough					
Treatment Charge	939,536	889,714			
Sewer charge	6,073	-			
Subtotal West York Borough	945,609	889,714	710,592	179,122	3,093,644
York Township					
Treatment Charge	1,220,088	1,035,977			
Sewer charge	11,480	-			
Subtotal York Township	1,231,568	1,035,977	827,408	208,569	3,602,228
York City					
Treatment Charge	3,298,215	2,941,956			
Sewer charge					
Subtotal York City	3,298,215	2,941,956	2,349,665		
Total Revenues					
Treatment Charge	9,204,589	8,253,592	6,626,949		
Sewer charge	112,598	43,842			
Total Revenues	9,317,187	8,297,434	6,626,949		18,621,674

Based on the Market Approach analysis of the wastewater treatment contracts of $33,523,704 and the Income Approach analysis of the wastewater treatment contracts of $18,621,674 the value of the treatment contracts were determined to be $18,621,674 which was included in the final cost approach to value.

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 capitalization rate. The York City's wastewater system's 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 sewer 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 (debt-free after-tax net cash flows) from operations are discounted to the appraisal date using a market derived discount rate 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 income taxed (local, state, and federal) operation; thus, making the DCF approach preferable in this case.

In preparing this appraisal's DCF analysis (Income Approach tab), first the results from the York city's wastewater system's operations were evaluated based on an analysis of historical operating performances over the period 2011 through budgetary 2020 (Financials tab) 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 for a period of 20 years based on the migration of the York City's historical operations over time to operations of the wastewater operation similar to a public investor-owned water/wastewater utility. Finally, the resultant cash flows from future period operations on the System were discounted to the appraisal date using a market derived discount rate for a public investor-owned water/wastewater utility. The following

table details the market discount rate developed using the weighted average cost of capital (WACC) of the market debt and equity:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	**100.0%**						**7.72%**
Growth (g)							**1.82%**
Rate without Growth: [(1+r)/(1+g)]-1							**5.79%**

The following table presents the results of the discounted cash flow analysis:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(1) Period	(2) Age	(3) Revenues	(4) O&M Expenses	(5) Tax Depreciation	(6) Cash Flow from Operations (3)-(4)	(7) Taxable Income before State & Federal Taxes (6)-(5)	(8) State and Federal Taxes @ 28.89% (7) *28.89%	(9) Capital Expenditures	(10) Change in Working Capital	(11) Net Cash Flows (3)-(4)-(8)-(9)-(10)	(12) Period Present Worth Factor (PW)	(13) PW of Cashflow (11)*(12)	(14) Accumulated PW of Cashflows Sum (13)
1	0.5	23,519,433	13,876,085	10,538,130	9,643,348	(894,782)	(258,502)	5,045,467	-	4,856,383	0.964	4,681,553	4,681,553
2	1.5	23,519,433	13,867,066	10,706,768	9,652,367	(1,054,401)	(304,617)	5,083,310	-	4,873,674	0.894	4,357,065	9,038,618
3	2.5	30,575,263	13,863,599	10,878,341	16,711,664	5,833,323	1,685,247	5,121,433	381,016	9,523,968	0.830	7,904,893	16,943,511
4	3.5	30,575,263	13,865,677	11,052,884	16,709,586	5,656,702	1,634,221	5,159,843	-	9,915,522	0.771	7,644,867	24,588,378
5	4.5	30,575,263	13,873,301	11,230,430	16,701,962	5,471,532	1,580,726	5,198,542	-	9,922,694	0.716	7,104,649	31,693,027
6	5.5	38,219,079	13,796,046	11,411,016	24,423,033	13,012,017	3,759,172	5,237,533	412,765	15,013,563	0.664	9,969,006	41,662,033
7	6.5	38,219,079	13,729,765	11,324,695	24,489,314	13,164,619	3,803,259	4,276,880	-	16,409,175	0.617	10,124,461	51,786,494
8	7.5	38,219,079	13,674,212	11,479,142	24,544,867	13,065,725	3,774,688	4,308,955	-	16,461,224	0.573	9,432,281	61,218,775
9	8.5	45,862,895	13,629,150	11,636,194	32,233,745	20,597,551	5,950,633	4,341,273	412,767	21,529,072	0.531	11,431,937	72,650,712
10	9.5	45,862,895	13,594,359	11,795,877	32,268,536	20,472,659	5,914,551	4,373,832	-	21,980,153	0.493	10,836,215	83,486,927
11	10.5	45,862,895	13,569,627	11,958,226	32,293,268	20,335,042	5,874,794	4,406,638	-	22,011,836	0.458	10,081,421	93,568,348
12	11.5	50,449,185	13,554,757	12,123,267	36,894,428	24,771,161	7,156,388	4,439,686	247,659	25,050,695	0.425	10,646,545	104,214,893
13	12.5	50,449,185	13,549,561	12,291,035	36,899,624	24,608,589	7,109,421	4,472,984	-	25,317,219	0.395	10,000,302	114,215,195
14	13.5	50,449,185	13,553,864	12,461,560	36,895,321	24,433,761	7,058,914	4,506,531	-	25,329,876	0.366	9,270,735	123,485,930
15	14.5	53,476,136	13,567,502	12,634,873	39,908,634	27,273,761	7,879,389	4,540,329	163,455	27,325,461	0.340	9,290,657	132,776,587
16	15.5	53,476,136	13,804,762	9,956,507	39,671,374	29,714,867	8,584,625	4,574,383	-	26,512,366	0.316	8,377,908	141,154,495
17	16.5	53,476,136	14,046,766	10,094,596	39,429,370	29,334,774	8,474,816	4,608,690	-	26,345,864	0.293	7,719,338	148,873,833
18	17.5	56,684,704	14,293,611	10,234,860	42,391,093	32,156,233	9,289,936	4,643,255	173,263	28,284,639	0.272	7,693,422	156,567,255
19	18.5	56,684,704	14,545,393	10,377,325	42,139,311	31,761,986	9,176,038	4,678,080	-	28,285,193	0.253	7,156,154	163,723,409
20 and beyond	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	3.044	85,564,667	249,288,076
								93,730,810					

Age				19.5									
PW(Age) = 1/(1+Discount Rate)$^{(Age)}$				0.235				Net Plant		141,855,874			
PW to Perpetuity = 1/Capitalization Rate				12.953				ADIT		(10,929,899)			
PW$_{(20and Beyond)}$ = PW to Perpetuity * PW Factor$_{(19.5)}$				3.044				Rate Base		130,925,975	0.235	30,767,604	194,491,013
								Annual Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 19.5 years		299,258,981	0.235	70,325,861	234,049,270
								PP	235,000,000				
								OCLD	97,106,105				
								PP/OCLD	2.420				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										121,658,770.88	0.235	28,589,811	192,313,220
								Average					217,535,395

Based on the above-described discounted cash flow analysis, the Income Approach to value of the System's property operating as a rate regulated wastewater utility under the regulation of the Pennsylvania Public Utility Commission (PA PUC) was determined to be $249,288,076. To ensure that the above-described forecast captured the entire economic returns of the property an additional 40-year period beyond the original 20-year forecast was made. This additional forecast indicated the reasonableness of the initial forecast results.

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 water and wastewater systems and market value to book value ratios based on investor-owned water utilities' financial performance as reported in Value Line Investment Survey (April 10, 2020).

Market Sales – In the comparable sale market approach, the sales of Pennsylvania municipal water and 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 York City's wastewater system 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 following sales were considered:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

RowID	Approximate Date	Buyer	Seller	County	Type of Facility	Initial Purchase Price	Final Purchase Price[1]	Number of Total Customers	Relationship to the passage of Section 1329
1	9/1/2016	PA American Water	City of McKeesport	Allegheny	Wastewater Collection and Treatment	156,000,000	159,000,000	21,953	Post
2	8/1/2016	Aqua PA	New Garden Twp. SA	Chester	Wastewater Collection and Paid for and Owned Treatment	29,500,000	29,500,000	2,106	Post
3	11/16/2016	Aqua PA	Limerick Township	Montgomery	Wastewater Collection and Treatment System	75,100,000	64,373,378	5,434	Post
4	12/10/2017	Aqua PA	East Bradford Township	Chester	Wastewater Collection and paid for treatment Capacity	5,000,000	5,000,000	1,248	Post
5	4/20/2018	SUEZ	Mahoning	Carbon	Water Distribution System	4,734,800	4,734,800	1,186	Post
6	4/20/2018	SUEZ	Mahoning	Carbon	Wastewater Collection	4,765,200	4,765,200	1,451	Post
7	6/1/2018	Aqua PA	Cheltenham	Montgomery	Wastewater Collection	50,250,000	50,250,000	10,500	Post
8	11/14/2018	PA American Water	Steelton	Dauphin	Water Distribution and Treatment	22,500,000	21,750,000	2,325	Post
9	1/1/2017	PA American Water	Sadsbury	Chester	Wastewater Collection	9,250,000	8,600,000	998	Post
10	5/28/2018	PA American Water	Exeter	Berks	Wastewater Collection and Treatment	96,000,000	93,500,000	9,000	Post
11	10/29/2018	Aqua PA	East Norriton	Montgomery	Wastewater Collection	21,000,000	21,000,000	4,950	Post
12	9/30/2018	PA American	Kane	McKean	Wastewater Collection and Treatment	17,560,000	17,560,000	2,006	Post
13	12/10/2019	PA American	Royersford	Montgomery	Wastewater Collection and Treatment	13,000,000	13,000,000	1,596	Post
14	12/17/2019	PA American	Valley	Chester	Water Treatment and Distribution System	7,325,000	7,325,000	1,459	Post
15	12/17/2019	PA American	Valley	Chester	Wastewater Collection System	13,950,000	13,950,000	1,644	Post
16	12/31/2019	Aqua PA	Delaware County Regional Wa	Delaware	Wastewater Collection and Treatment	276,500,000	276,500,000	16,473	Post
17	4/28/2020	PA American Water	Upper Pottsgrove	Montgomery	Wastewater Collection	13,750,000	13,750,000	1,428	Post
18	9/17/2020	Aqua PA	Lower Makefield	Bucks	Wastewater Collection and Purchased Treatment Capacity	53,000,000	53,000,000	11,151	Post

In order to arrive at a measure of comparability, these system sales were analyzed in relationship of the purchase price to the properties' depreciated original cost (OCLD), depreciated replacement cost (CORLD), customers, and cashflow (EBITDA) for an average 5 year and 13-year periods (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 (April 2021) 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
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Central Tendancy and Reliability Analysis

Market Sales Analysis - PP/OCLD

	Simple	Weighted	
Mean	1.7594	1.8494	
Standard Deviation	0.5882	0.4204	
Median	1.49	1.4355	
Mode	1.4418	1.4418	
Conclusion		1.8494	AUS Input
The York City Sewer Authority Wastewater System OCLD		115,727,779	Cost Approach - OCLD
Market Value Indication		**214,026,955**	

Market Sales Analysis - PP/CORLD

	Simple	Weighted	
Mean	0.8087	0.9337	
Standard Deviation	0.1746	0.1695	
Median	0.8229	0.7558	
Mode	0.6918	0.6918	
Conclusion		0.9337	AUS Input
The York City Sewer Authority Wastewater System CORLD		236,987,901	Cost Approach - CORLD
Market Value Indication		**221,275,603**	

Market Sales Analysis - PP/Customer

	Simple	Weighted	
Water Tretment & Distribution			
Mean	6,123	10,962	
Standard Deviation		4,613	
Median	5,021	4,963	
Wastewater Collection & Treatment		16,785	
Mean	9,579		
Standard Deviation		-	AUS Input
Median	8,754		
Wastewater Collection			
Mean	6,507		
Standard Deviation			
Median	6,636		
Watewater Treatment Only			
Mean	3,072		
Standard Deviation			
Median	2,118		
The York City Sewer Authority Wastewater System Customers		13,733	AUS Input
Wastewater Collection & Treatment PP/Customer		8,754	AUS Input
Collection and Treatement Customers Market Value Indica		**120,218,682**	

Treatement Only Market Value Indication

Treatment Only PP/customer	2,118	AUS Input
York's Treatment Only Customers	34,490	AUS Input
Market Value Indication Treatment Only	**73,049,820**	

Total Market Value Indication **193,268,502**

Financial Basis[1]

Financial Markets	Market Value per Share to Book Value per Share	
Market to Book (equity)	3.40	
Market to Book (equity and debt)	2.11	
Use (equity and debt)	2.11	AUS Input
The York City Sewer Authority Wastewater System OCLD	97,106,105	Cost Approach - OCLD
Market Value Indication	**204,893,882**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-5)

	Simple	Weighted	
Mean	17.48	15.32	
Standard Deviation	5.71	5.10	
Median	17.41	18.13	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		18.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		13,874,600	Income Approach
Market Value Indication		**249,742,796**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-13)

	Simple	Weighted	
Mean	11.62	11.45	
Standard Deviation	2.67	2.14	
Median	11.65	12.07	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		12.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		18,001,021	Income Approach
Market Value Indication		**216,012,253**	

Summary of Market Analyses

Indicators	
OCLD	214,026,955
CORLD	221,275,603
Customers	193,268,502
Cash Flows	
EBITDA Periods 1-5	249,742,796
EBITDA Periods 1-13	216,012,253
Value Line	204,893,882
Mean	216,536,665
Median	215,019,604
Conclusion	**221,275,603**

The market approach conclusion of this appraisal was determined to be $221,275,603.

Cost Approach Revisited – Before concluding this appraisal's fair market value, the preliminary cost approach conclusion of $236,987,901 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 regard 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 $249,288,076 and the market approach conclusion of $221,275,603 for the York City's future wastewater system compared to the preliminary cost approach conclusion of $236,987,901 indicates no significant external obsolescence exists in the cost approach conclusion of $236,987,901 detailed as follows:

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

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Fair Market Value

(36)	(37)	(39)	(40)	(41)
Account	Description	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
		CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Prelim CORLD	EO%	FMV
353.00	Land & Land Rights - Land	3,527,270	0.00%	3,527,270
353.05	Land & Land Rights - Easements	1,794,835	0.00%	1,794,835
354.30	Stuctures & Improvements - Pumping	108,901	0.00%	108,901
354.40	Stuctures & Improvements - Treatment	106,434,616	0.00%	106,434,616
355.30	Generating Equipment - Pumping	6,118	0.00%	6,118
360.21	Collection Sewers - Force - Mains	80,258	0.00%	80,258
361.00	Mains Gravity	46,659,867	0.00%	46,659,867
361.70	Collection Sewers - Gravity - Manholes	9,902,159	0.00%	9,902,159
363.00	Service Laterals	7,389,193	0.00%	7,389,193
364.00	Flow Measuring Devices	85,852	0.00%	85,852
371.20	Pumping Equipment	71,710	0.00%	71,710
380.00	Treatment and Disposal Equipment	41,866,791	0.00%	41,866,791
390.00	Office Furniture and Equipment	31,919	0.00%	31,919
391.00	Transportation Equipment	97,104	0.00%	97,104
394.00	Laboratory Equipment	309,634	0.00%	309,634
	Grand Total	218,366,227	0.00%	218,366,227

Value Conclusion

The Fair Market Value of the York City's wastewater collection and treatment system's property, plant and equipment and its operation was determined to be $240,336,741 as follows:

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Fair Market Value Appraisal

Appraisal Approach		Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach				
Inventory of Assets				
Original Cost ($OC)		155,875,776		
Depreciated Original Cost ($OCLD)		97,106,105		
Intangible Assets (Treatement contracts)		18,621,674		
Cost Approach of all assets Conclusion		115,727,779		
Replacement Cost				
Replacement Cost New (COR)		474,152,569		
Depreciated Replacement Cost New (CORLD)	**$**	**218,366,227**		
External or Economic Obsolescence	**$**	-	AUS Input	
Market Value of Tangible Assets	**$**	**218,366,227**		
Intangible Assets (Treatement contracts)	$	18,621,674		
Cost Approach of all assets Conclusion		**236,987,901**		
Cost Approach Conclusion		**236,987,901**	**50%**	**118,493,951**
Income Approach				
Required Rate Increases: 30% period 3,25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)		249,288,076		
Income Approach Conclusion		**249,288,076**	**40%**	**99,715,230**
Market Approach				
Market Comparables (to)				
OCLD		214,026,955		
CORLD		221,275,603		
Customers		193,268,502		
Cash Flows (EBITDA)		249,742,796		
Market Financials (to)				
OCLD		204,893,882		
Market Approach Conclusion		**221,275,603**	**10%**	**22,127,560**
Appraisal Conclusion	**$**	**240,336,741**	**100%**	**240,336,741**
Conclusion (cost approach)	**$**	**236,987,901**		

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 the York City's property, plant and equipment this appraisal's conclusion of $240,336,741 is consistent with the purpose of the appraisal. As the cost approach work papers detail 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 allocate the appraisal conclusion to establish the booked value for future accounting and rate making.

PURPOSE AND SCOPE OF WORK

The purpose of this appraisal of the York City's wastewater collection and treatment system is the determination of the fair market value of the property plant and equipment of wastewater utility. The report was prepared based on the 2020-2021 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statues (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 our client Pennsylvania American Water Company and the 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-ending December 31) York City (Pennsylvania) wastewater collection and treatment operational financial statements cover the period 2011 through 2018 and budgets for 2019 and 2020.

- The Buchart Horn Engineers' Engineer's Assessment and inventory of York City's wastewater system's property dated May 2021.

- The Handy-Whitman (water industry) Index of Public Utilities Construction Costs for northeastern United States, AUS Consultant General Plant Cost Indexes for the period 1912 through January 1, 2021, and various cost indexes published by the United States Bureau of Labor Statistics (US BLS).

In preparing this fair market value appraisal of the 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 sewer 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

YORK CITY'S WASTEWATER COLLECTION AND TREATMENT SYSTEM 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. (on February 3, 2020 Aqua's name changed to Essential Utilities, Inc.) American and Aqua have been particularly active in the acquisition of municipal water and wastewater systems.

Pennsylvania Water / Wastewater Industry

The water and wastewater industry in Pennsylvania also consist of both municipal and investor-owned systems. Over last several years the need for infrastructure improvements has led the Pennsylvania legislature to pass legislation facilitating the acquisition of municipal water and/or wastewater systems to a private investor-owned rate regulated companies such as American Water and Aqua America. This legislation was 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, collectively referred to as Act 12. This appraisal was developed to meet the valuation criteria established by Section 1329 and the PA PUC's subsequent Implementation Orders in the valuation of acquired water and wastewater systems.

York City's Wastewater Collection and Treatment System Facilities, its Property and Operations[8]

The System is primarily comprised of the wastewater treatment plant (the "Plant"), the interceptors (the "Interceptors") and the collection system (the "Collection System"). The Interceptors are the pipes that convey sewage flow from the interconnected municipalities and include 65,000 linear feet (lf) of sewer main ranging in size from 8 to 72 inches in diameter and in age from 10 to 55 years old. The Collection System encompasses the pipes that convey sewage flow from the properties within the City and is comprised of 489,000 lf of sanitary sewer pipe, ranging in size from 6 to 27 inches in diameter and ranging in age from 10 to 85 years old, and includes one pumping station within the Collection System area. As a whole, the System provides sewer collection,

[8] Extracted from York City's RFP for the Sale of the York City Wastewater System

regional wastewater conveyance, wastewater treatment and industrial pretreatment compliance.

The Authority is permitted to discharge wastewater from the Plant through a National Pollutant Discharge Elimination System ("NPDES") permit, effective February 1, 2008, and discharges into Codorus Creek. The NPDES permit includes interim nutrient reporting requirements and final effluent nutrient limitations for total nitrogen and total phosphorous. An NPDES permit was reissued by the Pennsylvania Department of Environmental Protection ("PADEP") on September 1, 2017 and expires on August 31, 2022. The City received a Clean Water Act Section 308 Request for Information from the Federal Environmental Protection Agency ("EPA") on April 2, 2020 and provided a response on May 22, 2020. The EPA has not initiated any enforcement actions pursuant to the Request for Information.

The System serves the city and six additional municipalities: Manchester Township, West Manchester Township, York Township, North York Borough, West York Borough and Spring Garden Township. The City is a party to intermunicipal agreements with those municipalities, providing for sewage treatment and disposal. Those agreements also detail how additional reserve capacity in the Plant will be distributed among the municipalities. The City has a separate agreement with Springettsbury Township for the sale of a portion of the City's capacity.

The Plant itself was originally constructed in 1916 and has been enlarged and upgraded with six major projects. The Plant has a 26 million gallons per day ("MGD") hydraulic capacity and an organic capacity of 62,884 pounds per day and is located north of the City in Manchester Township on 41.6 acres.

The first major Plant project was completed in the early 1950s and converted the primary treatment plant to an activated sludge plant using the contact stabilization process. This project also added anaerobic sludge digestion. The rated plant capacity at the time was 18 MGD.

The next major upgrade was completed in the early 1980s and expanded the Plant from 18 MGD to the current rating of 26 MGD. This expansion was accomplished by the

construction of an 8 8 MGD pure oxygen treatment system designated as Train 1 and the existing 18 MGD treatment facility was designated as Train 2. This upgrade also added chemical phosphorus removal.

By the mid-1980s, nitrification became a regulatory requirement, and the Plant was then again upgraded. This time, a third treatment train, Train 3, was added on acquired property adjacent to the existing Plant property. Train 3 provided the additional tankage required to accomplish nitrification and allowed the phosphorus removal process to be converted from chemical to biological removal. The project also added an effluent filtration system and converted the disinfection process from chlorine to ultraviolet ("UV") light disinfection. At the time, the City's UV disinfection system was the largest in the eastern United States of America. A state-of-the-art, plant-wide computer control and monitoring system was added along with an engine-driven, 1,500 kW cogeneration system using the digester gas. Most of the other existing treatment facilities were improved under this major project completed by 1990.

In 1996, a need to increase the disinfection peak hydraulic treatment capacity to 57 MGD prompted a new design to replace the original UV disinfection system. To replace the existing system, a low-pressure, high-intensity system was selected and was installed within the existing channels with minor modifications. The installation of the new system was sequenced to maintain continuous operation of the Plant.

By the mid-2000s, nitrogen removal was required, and the treatment process was again modified to meet the new biological nutrient removal ("BNR") requirement. At this time, the aeration system was modified to include de-nitrification while maintaining biological phosphorus removal. The BNR capacity of the Plant was set at an average daily flow rate of 18 MGD, which it was not expected to exceed within the 20 years thereafter.

In 2009, the Ostara Pearl® process was implemented to treat liquid remaining from sludge dewatering (centrate) by removing ammonia and phosphorus and converting it into a high-quality, environmentally safe fertilizer. The process reduces the ammonia and phosphorus load in the centrate returned to the BNR treatment process. At this same time, the Plant-wide computer control and monitoring system was updated with more modern software and hardware.

The existing 1,500-kilowatt ("kW") cogeneration system was replaced in 2010 with newer technology consisting of Capstone Microturbines with a rated capacity of 1,600 kW. The new generating facility replaced the internal combustion-engine-driven generators with three methane gas-fired microturbines and five natural gas-fired units to generate electricity.

APPRAISAL PROCEDURES AND RESULTS

The purpose of this appraisal of the York City's wastewater collection and Treatment system is the determination of the fair market value of the wastewater's property plant and equipment as of April 6, 2021. The report was prepared based on the 2020-2021 Uniform Standards of Professional Practices (USPAP) and is intended to meet the criteria established with Title 66 (Public Utilities) of the Pennsylvania Consolidated Statues (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 the Pennsylvania Public Utility Commission (PA 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 conducting this appraisal, we utilized several sources of data:

- Annual (year-ending December 31) York City's wastewater system's operational financial statements cover the period 2011 through 2018.

- The Buchart Horn Engineers' Engineer's Assessment and inventory of the York City's wastewater system's property date May 2021.

- The Handy-Whitman (water industry) Index of Public Utilities Construction Costs for northeastern United States, AUS Consultant General Plant Cost Indexes for the period 1912 through January 1, 2021, and various cost indexes published by the United States Bureau of Labor Statistics (US BLS).

In preparing this fair market value appraisal of the System'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 sewer system's operation. Detailed explanation of each approach to value is included below.

Cost Approach (Cost Approach tab) - The philosophy in the cost approach to value is that the maximum value of a property's tangible assets 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 most of the property's

[9] The Appraisal of Real Estate, 13th Edition. Page 385
[10] ibid

cost new was determined based on its reproduction/replacement cost new. However, for the easements and land the replacement cost were developed based on current costs.

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 an indication of current cost. Simply put, trending reflects the movement of price over time."[11] In the trended original cost method, the System'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 Gateway Engineers (Engineer's Assessment tab) as the starting point of the Cost Approach. Utilizing the Engineer's Assessment of the System's original cost in property, plant and equipment AUS Consultants developed the plant's depreciated original cost (OCLD) and depreciated replacement cost (RCNLD) on December 22, 2020 (Cost Approach tab).

The cost trends are applied to each of the various investment categories (NARUC 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 which includes the Commonwealth of Pennsylvania (HW), the AUS Consultants of General Plant Indexes AUS), and various United States Bureau of Labor Statistics (US BLS) indexes. The following table details the costing parameters using in the trending costing procedures:

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

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Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(3)				
		(3a)	(3b)	(3c)	(3d)	(3e)
Account Number	Description	Costing Parameters				Reproduction to Replacement Cost Factor
		Index Series	Table	Line Reference	Lookup	AUS Input
353.00	Land & Land Rights - Land	USBLS	PPI	3.00	USBLS3	1.00
353.05	Land & Land Rights - Easements	USBLS	PPI	3.00	USBLS3	1.00
354.30	Stuctures & Improvements - Pumping	HW	W-1	8.00	HWW-18	1.00
354.40	Stuctures & Improvements - Treatment	HW	W-1	15.00	HWW-115	1.00
355.30	Generating Equipment - Pumping	USBLS	PPI	4.00	USBLS4	1.00
360.21	Collection Sewers - Force - Mains	HW	W-1	44.00	HWW-144	1.00
361.00	Mains Gravity	HW	W-1	44.00	HWW-144	1.00
361.70	Collection Sewers - Gravity - Manholes	HW	W-1	45.00	HWW-145	1.00
363.00	Service Laterals	HW	W-1	39.00	HWW-139	1.00
364.00	Flow Measuring Devices	HW	W-1	40.00	HWW-140	1.00
371.20	Pumping Equipment	HW	W-1	9.00	HWW-19	1.00
380.00	Treatment and Disposal Equipment	HW	W-1	17.00	HWW-117	1.00
390.00	Office Furniture and Equipment	AUS	T-1	15.00	AUST-115	1.00
391.00	Transportation Equipment	AUS	T-1	4.00	AUST-14	1.00
394.00	Laboratory Equipment	AUS	T-1	7.00	AUST-17	1.00

The following table presents the development of the cost approach for the force mains and associated pumping station (Accounts 361.12 / 361.10) portion of York City's wastewater service area this example will be used to describe the entire cost approach process:

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Average Year Installed	Average Year Installed	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input	Eng Assmnt	Eng Assmnt	AUS Input	Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date	Year Installed	Units	Quantity	COR Cost	Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
		Accounts 354.3, 355, 360 - Structures & Improvements - Pumping													
354.30	354.40	7.5 HP Smith & Loveles Package Pump Station	1980	1980	0	1	0	116,920.51	HWW-18	181	762	4.210	492,235	1.000	492,235
354.30	354.40	Wet Well Structure	1980	1980	0	1	0	15,032.64	HWW-18	181	762	4.210	63,287	1.000	63,287
354.30	354.40	Valve Vault	1980	1980	0	1	0	2,645.74	HWW-18	181	762	4.210	11,139	1.000	11,139
354.30	354.40	Plug Valves	1980	1980	0	2	0	2,766.01	HWW-18	181	762	4.210	11,645	1.000	11,645
354.30	354.40	Check Valves	1980	1980	0	2	0	2,284.96	HWW-18	181	762	4.210	9,620	1.000	9,620
355.30	380.00	Generator	1980	1980	0	1	0	15,032.64	USBLS4	79.7	216.2	2.713	40,784	1.000	40,784
354.30	354.40	Automatic Transfer Switch	1980	1980	0	1	0	2,104.57	HWW-18	181	762	4.210	8,860	1.000	8,860
360.21	354.40	Forcemain (ft)	1980	1980	0	1,700	0	42,592.47	HWW-144	173	674.5	3.899	166,068	1.000	166,068
		Subtotal Accounts 354.3, 355, 360 - Structures & Improvements - Pumping						199,379.54					803,638	1.000	803,638

Using the trended original cost method, York City's investment in this example of $199,379.54 was determined to have a replacement cost new of $803,638.

When the trended cost method is applied to each of York City's investment in plant, property and equipment of $155,875,776.15 was determined to have a reproduction cost new of $470,735,872 replacement cost new of $474,152,569 detailed as follows:

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Replacement Cost New (RCN)

(1)	(2)	(3)	(9)	(10)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Original Cost	Costing Parameter	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
			OC $s			RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input			AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Original Cost	Cost Index Table	Translator	RCN	COR / RCN Factor	COR
353.00	353.00	Land & Land Rights - Land	40,501.00	USBLS3	4.42	179,118	19.69	3,527,270
353.05	353.05	Land & Land Rights - Easements	94,374.54	USBLS3	18.29	1,726,290	1.04	1,794,835
354.30	354.30	Stuctures & Improvements - Pumping	141,754.43	HWW-18	4.21	596,786	1.00	596,786
354.40	354.40	Stuctures & Improvements - Treatment	85,546,239.79	HWW-115	2.73	233,812,447	1.00	233,812,447
355.30	355.30	Generating Equipment - Pumping	15,032.64	USBLS4	2.71	40,784	1.00	40,784
360.21	360.21	Collection Sewers - Force - Mains	42,592.47	HWW-144	3.90	166,068	1.00	166,068
361.00	361.00	Mains Gravity	26,712,768.07	HWW-144	3.33	88,834,842	1.00	88,834,842
361.70	361.70	Collection Sewers - Gravity - Manholes	5,351,533.58	HWW-145	6.08	32,534,869	1.00	32,534,869
363.00	363.00	Service Laterals	2,039,891.94	HWW-139	21.62	44,097,551	1.00	44,097,551
364.00	364.00	Flow Measuring Devices	90,155.20	HWW-140	1.58	142,103	1.00	142,103
371.20	371.20	Pumping Equipment	36,252.00	HWW-19	9.88	358,069	1.00	358,069
380.00	380.00	Treatment and Disposal Equipment	34,672,151.67	HWW-117	1.93	66,780,665	1.00	66,780,665
390.00	390.00	Office Furniture and Equipment	60,303.60	AUST-115	1.10	66,154	1.00	66,154
391.00	391.00	Transportation Equipment	436,060.94	AUST-14	1.28	556,990	1.00	556,990
394.00	394.00	Laboratory Equipment	596,164.28	AUST-17	1.41	843,136	1.00	843,136
		Grand Total	155,875,776.15	-	3.02	470,735,872	1.01	474,152,569

Easements - For easements, the appraisal date cost to obtain and register an easement was developed as follows:

Current cost of Easements

Activity	Engineer	Legal	Fees	Total
Determine the facilities for which a Easment is need	1	0	0	
Locate the Land owner for the property needing a easement	1	1	0	
Develop a diagram o the Property, the facilities, and the easement	2	0	0	
Develop the easement document	1	1	0	
Visit the property owner to obtain permission for the easement and sign the easment documentation	4	0	0	
Register the easement with the Municipal Clerk	0	1	250	
Total	9	3	250	
Labor Costs per Hour	54	100		
Total Cost	486	300	250	1,036

Land - For the land associated with the wastewater treatment plant (30.38 acres) appraisal date value was determined based on$116,105 per acre based on market sales and offerings in the City of York near and around the wastewater treatment plant based on the following statistics:

Price					
For sale & UC/Pending	$ 45,000	$ 1,218,001	$ 839,700	$ 5,000,000	30
Sold Transactons	$ 1,760	$ 911,748	$ 450,000	$ 6,500,000	33
Parcel Size (acres)					
For sale & UC/Pending	0.21	15.87	5.395	116.87	34
Sold Transactons	0.06	12.17	1.59	202.61	49
Price per Acre					
For sale & UC/Pending	$ 23,260	$ 77,740	$ 150,357	$ 1,244,344	30
Sold Transactons	$ 164	$ 45,943	$ 116,105	$ 1,936,000	23
Days on the Market					
For sale & UC/Pending	45	1,433	859	7,775	34
Sold Transactons	26	557	250	4,920	26
Sale Price to Asking Price Ratio					
Sold Transactons	55.70%	81.03%	79.31%	108.33%	6.00%

The individual sales statistics are contained the in Land Sales section of the work papers.

Replacement Cost New less Depreciation - The replacement cost described above reflects the cost of new property; however, the York City'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]
>
> 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.

Wastewater Depreciation Service Life Experience in Pennsylvania

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 and depreciation studies filed with PAWC and Aqua America rate cases. With each of their recent rate case filings PAWC and Aqua America have filed depreciation studies in support of their depreciation service lives and associated depreciation expenses contained within their revenue requirements. The depreciation studies were prepared by Gannett Fleming Rate Consultants a recognized firm in the depreciation consulting area. AUS Consultants has reviewed the PAWC studies which are summarized in the following table:

[12] The Dictionary of Real Estate Appraisal, 4th Edition
[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.

Summary of PAWC Depreciation Studies Prepared for Rate Case

Account	Account Description	Iowa Curves		Service Life		Remaining Life	
		12/31/2016	12/31/2019	12/31/2016	12/31/2019	12/31/2016	12/31/2019
				years	years	years	years
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	R3	R3	45	45	39.1	33.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	R2.5	S0	50	55	45.2	32.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	R2	S0	65	55	56.6	31.7
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	S1	S1	35	35	33.3	23.2
355.00	POWER GENERATION EQUIPMENT	R2.5	S0.5	35	35	29.7	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	S2	R3	70	75	53.1	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	R2.5	R2.5	70	80	56.9	54.8
361.20	MANHOLES	S1.5	S2.5	50	50	41.3	32.2
363.00	SERVICES	R3	R3	38	47	22.9	30.2
364.00	FLOW MEASURING DEVICES	L3	L2.5	20	15	13.3	5.1
365.00	FLOW MEASURING INSTALLATIONS	S1.5	S2	30	25	23.1	10.8
370.00	RECEIVING WELLS	R3	R3	50	50	42.7	33.7
371.00	PUMPING EQUIPMENT	SO	S0.5	40	30	35.5	18.2
380.00	TREATMENT EQUIPMENT	5-R2	S1.5	45	35	37.1	20.1
381.00	PLANT SEWERS	R3	R3	50	50	43.1	32.7
382.00	OUTFALL SEWER LINES	R3	R3	50	50	37.8	28.3
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	52.5	S2.5	20	20	13.6	11.3
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	SQ	SQ	20	5	12.3	3.5
390.00	OFFICE FURNITURE AND EQUIPMENT	L4	SQ	15	20	9.5	10.1
391.00	TRANSPORTATION EQUIPMENT	SQ	L4	25	14	19,9	9.8
392.00	STORES EQUIPMENT	SQ	SQ	20	25	16.4	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	SQ	SQ	15	20	11,3	15.4
394.00	LABORATORY EQUIPMENT	L2.5	SQ	16	15	8.7	10.4
395.00	POWER OPERATED EQUIPMENT	SQ	R2	15	22	10.3	13.2
396.00	COMMUNICATION EQUIPMENT	SQ	SQ	15	15	9.6	6.9
397.00	MISCELLANEOUS EQUIPMENT		SQ		15		12.8
398.00	OTHER TANGIBLE PLANT		SQ		25		21.5
	TOTAL DEPRECIABLE PLANT						

It is of particular importance in the above table the service life extension of the mains plant categories between the 2016 and the 2020 studies. The mains service lives increased as follows:

Account	Description	Service Life	
		2016	2020
360.10	COLLECTION SEWERS - FORCE MAINS	70	75
361.10	COLLECTION SEWERS - GRAVITY MAINS	70	80

AUS Consultants believe this increase in service lives is attributable to the widespread use of relining older mains instead of replacing mains which are in need of repair. The practice of relining mains with a cured in place plastic liner not only repairs specific main but has the effect of extending the life of the original mains by the length of time which the relining can be expected to last. Most relining vendors warranty their product and procedure for 50 years. Thus, in essence the original main's service life will be extended by 50 plus years at the date the relining occurred. For those mains associated with

relining their installation date was established at the date of their relining and their depreciation parameters were established the same as the depreciation parameters of the relining, i.e., R2.5 – 60 years.

The following table details the lives used in the depreciation portion of the replacement cost new less depreciation analysis:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.00	Land & Land Rights - Land	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.05	Land & Land Rights - Easements	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
360.21	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.00	Mains Gravity	R2.5	80.00	0.00%	MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	50.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	S2.0	30.00	0.00%	MACRS	25.00
371.20	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.00	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00

As the above table demonstrates, the depreciation lives selected for the AUS Consultants appraisal are consistent with the depreciation studies' finding for wastewater plant.

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 formulas:

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

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

where: the property's Service Life = Age + Remaining Life
and Remaining Life = f(Survival Characteristic, Service Life, Age)

However due to the age of some of the property the extent of the depreciation was limited to 85% of the assets original cost and its replacement cost new.

When the above depreciation lives are used to quantify the property's depreciation is applied to the replacement cost new of the force mains example York City's wastewater service area of $803,638, the replacement cost new less depreciation was determined to be $195,277 detailed as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	2021-[(20)+0.5]	Col (16)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	Lookup Iowa Curves Life Tables @ col (26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Year1	Age	RCN	Iowa	NLife	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD
	Accounts 354.3, 355, 360 - Structures & Improvements - Pumping												
354.4	7.5 HP Smith & Loveles Package Pump Station	1980	40.50	492,235	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	146,312
354.4	Wet Well Structure	1980	40.50	63,287	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	18,811
354.4	Valve Vault	1980	40.50	11,139	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	3,311
354.4	Plug Valves	1980	40.50	11,645	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	3,461
354.4	Check Valves	1980	40.50	9,620	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	2,859
380	Generator	1980	40.50	40,784	R2.0	45.0	90	R2.0090	0.32717	14.72	55.22	26.657008%	10,872
354.4	Automatic Transfer Switch	1980	40.50	8,860	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	2,634
354.4	Forcemain (ft)	1980	40.50	166,068	R4.0	55.0	74	R4.0074	0.31142	17.13	57.63	29.724102%	49,362
	Subtotal Accounts 354.3, 355, 360 - Structures & Improvements - Pumping			803,638									195,277

When the above depreciation lives are used to quantify the property's depreciation is applied to each of the York City's investment in plant, property and equipment the replacement cost new (RCN) of $474,152,569 the resultant RCN less depreciation (RCNLD) was found to be $218,366,227 detailed as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	City of York Wastewater Assets Detail by Buchart Horn Engineers		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.00	Land & Land Rights - Land	73.39	3,527,270	ZNonDep	-	-	-	-	3,527,270
353.05	Land & Land Rights - Easements	93.94	1,794,835	ZNonDep	-	-	-	-	1,794,835
354.30	Stuctures & Improvements - Pumping	40.50	596,786	R4.0	45.00	9.04	49.54	45.00	108,901
354.40	Stuctures & Improvements - Treatment	33.18	233,812,447	R4.0	55.00	25.40	58.57	55.00	106,434,616
355.30	Generating Equipment - Pumping	40.50	40,784	R3.0	35.00	5.25	45.75	35.00	6,118
360.21	Collection Sewers - Force - Mains	40.50	166,068	R3.0	75.00	37.88	78.38	75.00	80,258
361.00	Mains Gravity	42.65	88,834,842	R2.5	80.00	44.32	86.97	80.00	46,659,867
361.70	Collection Sewers - Gravity - Manholes	65.46	32,534,869	S2.0	75.00	25.66	91.12	75.00	9,902,159
363.00	Service Laterals	76.98	44,097,551	R3.0	50.00	8.44	85.42	50.00	7,389,193
364.00	Flow Measuring Devices	13.75	142,103	S2.0	30.00	18.72	32.47	30.00	85,852
371.20	Pumping Equipment	47.62	358,069	R3.0	35.00	7.11	54.73	35.00	71,710
380.00	Treatment and Disposal Equipment	18.98	66,780,665	R2.0	45.00	29.75	48.74	45.00	41,866,791
390.00	Office Furniture and Equipment	6.50	66,154	R3.0	12.00	6.06	12.56	12.00	31,919
391.00	Transportation Equipment	26.49	556,990	R3.0	15.00	2.67	29.17	15.00	97,104
394.00	Laboratory Equipment	19.09	843,136	R3.0	20.00	7.54	26.63	20.00	309,634
Grand Total		39.75	474,152,569		58.42	27.62	66.47	0.46	218,366,227

The preliminary cost approach to value of the tangible assets of York City's wastewater utility property was found to be $218,366,227.

Intangible Assets

In addition to the above-described tangible assets are the intangible assets, in York city's case which consist of the contracts associated with its wastewater treatment contracts with the following seven communities:

York City Wastewater System

Municipality	Residential	Commercil / Industrial	Total		2020 Budget Revenues
Collection & Treatment					
City of York	~~17,360~~	~~1,302~~	~~18,662~~	**13,733**	**2,941,956**
Treatment Contracts					
Manchester Township	3,834	129	3,963		975,132
North York	718	64	782		131,363
Spring Garden Township	3,463	235	3,698		1,073,344
Springettsbury Township					273,842
West Manchester Township	2,180	318	2,498		976,106
West York Borough	1,510	160	1,670		889,714
York Township	3,012	205	3,217		1,035,977
Treatment Only	**14,717**	**1,111**	**15,828**		**5,355,478**
Treatment Only	~~32,077~~	~~2,413~~	~~34,490~~		**8,297,434**

Note: Customers as of 12-31-2018
City of York Updated to 13,733

These contracts represent value assets which are included in the overall income and market approaches which are not specifically address in the cost approach of the tangible assets; therefore, in order to make the cost approach comparable to the income and market approaches these intangible assets were separately appraised and included in the cost approach totals. AUS Consultants developed both a market and income approach estimate to the value of the above contracts.

Market Approach to Treatment Contracts – The market approach to the value of the wastewater treatment contracts was based on customers. The market evidence from past Section 329 water and wastewater acquisitions were segregated into the following segments:

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Customers	Purchase Price to Customers	Accummulated Customers
Water Distribution and Treatment							
Mahoning	Water Distribution System	2018.304795	4,734,800	0.005505208	1186	3992	2637
Valley	Water Treatment and Distribution System	2019.963242	7,325,000	0.008516864	1459	5021	31945
Steelton	Water Distribution and Treatment	2018.871689	21,750,000	0.025288981	2325	9355	62467
Mean						6122.66667	
Median						5021	
Wastewater Collection and Treatment							
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.944064	5,000,000	0.005813559	1248	4006	3885
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.713242	53,000,000	0.061623724	11151	4753	19986
City of McKeesport	Wastewater Collection and Treatment	2016.669406	159,000,000	0.184871172	21953	7243	53898
Royersford	Wastewater Collection and Treatment	2019.944064	13,000,000	0.015115253	1596	8145	55494
Kane	Wastewater Collection and Treatment	2018.748858	17,560,000	0.020417219	2006	8754	60142
Exeter	Wastewater Collection and Treatment	2018.410046	96,000,000	0.11162033	9000	10667	72895
Limerick Township	Wastewater Collection and Treatment System	2016.877169	64,373,378	0.074847684	5434	11846	78329
New Garden Twp. SA	Wastewater Collection and Paid for and Owned T	2016.586073	29,500,000	0.034299997	2106	14008	80435
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2020.001598	276,500,000	0.321489805	16473	16785	96908
Mean						9578.55556	
Median						8754	
Wastewater Collection Only							
Mahoning	Wastewater Collection	2018.304795	4,765,200	0.005540554	1451	3284	1451
East Norriton	Wastewater Collection	2018.829452	21,000,000	0.024416947	4950	4242	8835
Cheltenham	Wastewater Collection	2018.419406	50,250,000	0.058426267	10500	4786	30486
Valley	Wastewater Collection System	2019.963242	13,950,000	0.016219829	1644	8485	57138
Sadsbury	Wastewater Collection	2017.00274	8,600,000	0.009999321	998	8617	58136
Upper Pottsgrove	Wastewater Collection	2020.326712	13,750,000	0.015987287	1428	9629	63895
Mean						6507.16667	
Median						6635.5	

Description of Service	Purchase Price per Customer	
	Mean	Median
Water Distribution and Treatment	6,123	5,021
Wastewater Collection and Treatment	9,579	8,754
Wastewater Collection	6,507	6,636

This analysis allowed for the determination of the purchase price per customer separately for wastewater collection and treatment and wastewater collection only which allowed for the estimation of the purchase price per customer for wastewater treatment only as follows:

Description of Service	Purchase Price per Customer	
	Mean	Median
Water Distribution and Treatment	6,123	5,021
Wastewater Collection and Treatment	9,579	8,754
Wastewater Collection	6,507	6,636
Wastewater Treatment Only	3,072	2,118

Based on the above analysis the market values of the wastewater treatment contracts were estimated as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Municipality	Residential	Commercil / Industrial	Total	Market Value Per Treatment only customer	Market Value of Treatment Contract
Manchester Township	3,834	129	3,963	2,118.00	8,393,634
North York	718	64	782	2,118.00	1,656,276
Spring Garden Township	3,463	235	3,698	2,118.00	7,832,364
West Manchester Township	2,180	318	2,498	2,118.00	5,290,764
West York Borough	1,510	160	1,670	2,118.00	3,537,060
York Township	3,012	205	3,217	2,118.00	6,813,606
Total	14,717	1,111	15,828		33,523,704

Income Approach to Treatment Contracts – AUS Consultants also developed an income approach analysis of the wastewater treatment contracts. Using the 2020 budget estimate the revenues and expenses of the wastewater treatment contracts in order to develop the estimated operating income as a surrogate for the cash flows associated the wastewater treatment contracts. The estimated cash flows were next discounted to appraisal date values using the cost of capital of 5.79% i.e., the cost of capital of 7.72% with the embedded growth rate of 1.82% removed; the development which is described in the Cost of Capital section of the workpapers. The income approach to the wastewater treatment contract was developed as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Income Approach to Treatment Agreements Valuation

Municipality	2019 YTD Projected	2020 Proposed Budget	Expenses	Operating Income	Value Capitalized @ 5.79%
					5.79%
Manchester Township					
Treatment Charge	934,716	975,132			
Sewer charge	1,348	-			
Subtotal Manchester Twp	936,064	975,132	778,813	196,319	3,390,656
North York Borough					
Treatment Charge	162,028	131,363			
Sewer charge	1,698	-			
Subtotal North York Borough	163,726	131,363	104,916	26,447	456,770
Spring Garden Township					
Treatment Charge	1,254,860	1,073,344			
Sewer charge	12,122	-			
Subtotal Spring Garden Twp	1,266,982	1,073,344	857,252	216,092	3,732,159
Springettsbury Township					
Treatment Charge	230,000	230,000			
Sewer charge	66,968	43,842			
Subtotal Springettbury Twp	296,968	273,842	218,711	55,131	952,176
West Manchester Township					
Treatment Charge	1,165,146	976,106			
Sewer charge	12,909	-			
Subtotal West Manchester Twp	1,178,055	976,106	779,591	196,515	3,394,041
West York Borough					
Treatment Charge	939,536	889,714			
Sewer charge	6,073	-			
Subtotal West York Borough	945,609	889,714	710,592	179,122	3,093,644
York Township					
Treatment Charge	1,220,088	1,035,977			
Sewer charge	11,480	-			
Subtotal York Township	1,231,568	1,035,977	827,408	208,569	3,602,228
York City					
Treatment Charge	3,298,215	2,941,956			
Sewer charge					
Subtotal York City	3,298,215	2,941,956	2,349,665		
Total Revenues					
Treatment Charge	9,204,589	8,253,592	6,626,949		
Sewer charge	112,598	43,842			
Total Revenues	9,317,187	8,297,434	6,626,949		18,621,674

Based on the Market analysis of the wastewater treatment contracts of $33,523,704 and the income analysis of the wastewater treatment contracts of $18,621,674 the value of the wastewater treatment contracts were determined to be $18,621,674 which was included in the final cost approach to value.

Income Approach (Income Approach tabs)

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 capitalization rate. The York City'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 sewer 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 (debt-free after-tax net cash flows) from operations are discounted to the appraisal date using a market derived discount rate 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 income taxed (local, state and federal) operation; thus, making the DCF approach preferable in this case.

In preparing this appraisal's DCF analysis first the results from the York City's wastewater utility's operations were evaluated based on an analysis of historical operating performances over the period 2011 through budgetary 2020 (Financials tab). In this analysis operating statistics such as revenues and their growth, various operating expenses were stated as function of their typical drivers (revenues, plant investment, income from operations, etc.) were analyzed. Details are provided in Income Approach tab. Using the above-described analyses, the results of future periods operations were forecast based on the migration of the York City's of historical operations type experience over time to operations of the wastewater operation similar to a public investor-owned water/wastewater utilities. These forecasts are detailed in the Income Approach tab.

In this appraisal, future operating results were forecasted as follows:

Revenues
Operating Expenses
    Operating and Maintenance Expense
    Depreciation & Amortization
Total Operating Expenses
Operating Income (Revenues less Operating Expenses)
Taxes
    Property
    Income (state & federal)
Total Taxes
After Tax Income (Operating Income less Total Taxes)
Net Cash Flows
    Plus: After Tax Income
    Plus: Depreciation
    Less: Capital Expenditures
    Plus/less: Change in Working Capital
Equals: Debt-free after-tax net cash flows

In the above-described table, the depreciation expense (both book and tax) and the capital expenditures were forecast based on the investment in property plant and equipment at the appraisal date and in subsequent periods. The initial investment in the plant and depreciation forecast were based on the criteria established in Section 1329 for the acquisition and subsequent regulation (rate base) of the acquired property by the acquiring investor-owned utility company. The following table details the forecasts of plant investment, book depreciation, tax depreciation forecast, and the resultant net plant investment and rate base as follows:

Plant Investment
    Initial Investment/ Beginning Plant Balance
    Additions (Capital Expenditures)
    Retirements
    Ending Plant Balance

Depreciation (book)

- Initial Book Depreciation Reserve / Beginning Book Reserve Balance
- Book Depreciation & Amortization
- Retirements
- Ending Book Reserve Balance

Depreciation (tax)

- Initial Tax Reserve / Beginning Tax Reserve
- Tax Depreciation
- Retirement
- Ending Tax Reserve Balance

In these forecasts, the initial plant investment was based on the allocated purchase price of $235,000,000. Initially, the Cost Approach results are utilized to allocate the purchase price by category of plant (NARUC account). The Cost Approach results also define the property's ages and remaining lives of the various plant investment categories. Using these inputs, the future periods book and tax depreciation can be forecast, as well as the accumulated deferred taxes and resulting rate base.

With a forecast of the future rate base and an estimate of the Pennsylvania Commission's authorized return on rate base, the future return on rate base can be estimated which along with the forecast operating expenses (operating expenses, depreciation, and taxes) the future period revenue requirement forecasts can be made. An estimate of the PA Commission return on rate base is detailed as follows:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	**100.0%**						**7.16%**
Growth (g)						Not Applicable	**0.00%**
Rate without Growth: [(1+r)/(1+g)]-1							**7.16%**

Based on a comparison of the forecast revenues and the forecast of the estimated revenue requirement, future period rate increases were forecast. The criteria in making future period rate adjustments was to bring the forecast achieved return in line with the required return. Based on this process the results of future operations were forecast for the next 20-year period. Period 20 of the forecast was treated in the discounted cash flow as the forecast for period 20 through perpetuity.

Finally, the resultant cash flows from future period operations of the System were discounted to the appraisal date using a market derived discount rate for a public investor-owned water/wastewater utility (Cost of Capital / Required Return tab). The following table details the market discount rate developed using the weighted average cost of capital (WACC) of the market debt and equity:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	**100.0%**						**7.72%**
Growth (g)							**1.82%**
Rate without Growth: [(1+r)/(1+g)]-1							**5.79%**

The market cost of debt was developed based on market returns for utilities debt as reported in the Value Line Investment Survey. The market cost of equity was developed

using the capital asset pricing model (CAPM) and the dividend-growth model (DGM). Input to these equity costing models were developed based on Value Line Investment Surveys for the water industry published for April 1, 2021, consisting of the following nine companies:

Company	
American States Water (NYSE-AWR)	Consolidated Water Company (NDQ-CWCO)
American Water ((NYSE-AWK)	Middlesex Water (NDQ-MSEX)
Essential Utilities, Inc. (NYSE-WTRG)	SJW Corporation (NYSE-SJW)
California Water (NYSE-CWT)	York Water (NDQ-YORW)
In the January 2020 Issue Value Line dropped Connecticut Water (NDQ-CTWS) out of its list of Water Utility Industry companies	

The Value Line data was also used to develop the market capital structure used in the WACC determination. The market required return analysis can be found in the Cost of Capital / Required Return tab.

The following table presents the results of the discounted cash flow analysis:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(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	23,519,433	13,876,085	10,538,130	9,643,348	(894,782)	(258,502)	5,045,467	-	4,856,383	0.964	4,681,553	4,681,553
2	1.5	23,519,433	13,867,066	10,706,768	9,652,367	(1,054,401)	(304,617)	5,083,310	-	4,873,674	0.894	4,357,065	9,038,618
3	2.5	30,575,263	13,863,599	10,878,341	16,711,664	5,833,323	1,685,247	5,121,433	381,016	9,523,968	0.830	7,904,893	16,943,511
4	3.5	30,575,263	13,865,677	11,052,884	16,709,586	5,656,702	1,634,221	5,159,843	-	9,915,522	0.771	7,644,867	24,588,378
5	4.5	30,575,263	13,873,301	11,230,430	16,701,962	5,471,532	1,580,726	5,198,542	-	9,922,694	0.716	7,104,649	31,693,027
6	5.5	38,219,079	13,796,046	11,411,016	24,423,033	13,012,017	3,759,172	5,237,533	412,765	15,013,563	0.664	9,969,006	41,662,033
7	6.5	38,219,079	13,729,765	11,324,695	24,489,314	13,164,619	3,803,259	4,276,880	-	16,409,175	0.617	10,124,461	51,786,494
8	7.5	38,219,079	13,674,212	11,479,142	24,544,867	13,065,725	3,774,688	4,308,955	-	16,461,224	0.573	9,432,281	61,218,775
9	8.5	45,862,895	13,629,150	11,636,194	32,233,745	20,597,551	5,950,633	4,341,273	412,767	21,529,072	0.531	11,431,937	72,650,712
10	9.5	45,862,895	13,594,359	11,795,877	32,268,536	20,472,659	5,914,551	4,373,832	-	21,980,153	0.493	10,836,215	83,486,927
11	10.5	45,862,895	13,569,627	11,958,226	32,293,268	20,335,042	5,874,794	4,406,638	-	22,011,836	0.458	10,081,421	93,568,348
12	11.5	50,449,185	13,554,757	12,123,267	36,894,428	24,771,161	7,156,388	4,439,686	247,659	25,050,695	0.425	10,646,545	104,214,893
13	12.5	50,449,185	13,549,561	12,291,035	36,899,624	24,608,589	7,109,421	4,472,984	-	25,317,219	0.395	10,000,302	114,215,195
14	13.5	50,449,185	13,553,864	12,461,560	36,895,321	24,433,761	7,058,914	4,506,531	-	25,329,876	0.366	9,270,735	123,485,930
15	14.5	53,476,136	13,567,502	12,634,873	39,908,634	27,273,761	7,879,389	4,540,329	163,455	27,325,461	0.340	9,290,657	132,776,587
16	15.5	53,476,136	13,804,762	9,956,507	39,671,374	29,714,867	8,584,625	4,574,383	-	26,512,366	0.316	8,377,908	141,154,495
17	16.5	53,476,136	14,046,766	10,094,596	39,429,370	29,334,774	8,474,816	4,608,690	-	26,345,864	0.293	7,719,338	148,873,833
18	17.5	56,684,704	14,293,611	10,234,860	42,391,093	32,156,233	9,289,936	4,643,255	173,263	28,284,639	0.272	7,693,422	156,567,255
19	18.5	56,684,704	14,545,393	10,377,325	42,139,311	31,761,986	9,176,038	4,678,080	-	28,285,193	0.253	7,156,154	163,723,409
20 and beyond	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	3.044	85,564,667	249,288,076
								93,730,810					

Age				19.5									
PW(Age) = 1/(1+Discount Rate)$^{(Age)}$				0.235				Net Plant		141,855,874			
PW to Perpetuity = 1/Capitalization Rate				12.953				ADIT		(10,929,899)			
$PW_{(20and Beyond)}$ = PW to Perpetuity * PW $Factor_{(19.5)}$				3.044				Rate Base		130,925,975	0.235	30,767,604	194,491,013
								Annual Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 19.5 years		299,258,981	0.235	70,325,861	234,049,270
								PP	235,000,000				
								OCLD	97,106,105				
								PP/OCLD	2.420				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										121,658,770.88	0.235	28,589,811	192,313,220
								Average					217,535,395

Based on the above-described discounted cash flow analysis, the Income Approach to value of the System's wastewater property and its operations was determined to be $249,288,076. To ensure that the above-described forecast captured the entire economic returns of the property an additional 40-year period beyond the original 20-year forecast was made. This additional forecast indicated the reasonableness of the initial forecast results.

Market Approach (Market Approach tab)

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 Pennsylvania water and 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 sales market approach the sales of Pennsylvania municipal water and wastewater systems to investor-owned water/wastewater utilities following the passage of Section 1329 were used to insure comparability. The following sales were considered:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

RowID	Approximate Date	Buyer	Seller	County	Type of Facility	Initial Purchase Price	Final Purchase Price[1]	Number of Total Customers	Relationship to the passage of Section 1329
1	9/1/2016	PA American Water	City of McKeesport	Allegheny	Wastewater Collection and Treatment	156,000,000	159,000,000	21,953	Post
2	8/1/2016	Aqua PA	New Garden Twp. SA	Chester	Wastewater Collection and Paid for and Owned Treatment	29,500,000	29,500,000	2,106	Post
3	11/16/2016	Aqua PA	Limerick Township	Montgomery	Wastewater Collection and Treatment System	75,100,000	64,373,378	5,434	Post
4	12/10/2017	Aqua PA	East Bradford Township	Chester	Wastewater Collection and paid for treatment Capacity	5,000,000	5,000,000	1,248	Post
5	4/20/2018	SUEZ	Mahoning	Carbon	Water Distribution System	4,734,800	4,734,800	1,186	Post
6	4/20/2018	SUEZ	Mahoning	Carbon	Wastewater Collection	4,765,200	4,765,200	1,451	Post
7	6/1/2018	Aqua PA	Cheltenham	Montgomery	Wastewater Collection	50,250,000	50,250,000	10,500	Post
8	11/14/2018	PA American Water	Steelton	Dauphin	Water Distribution and Treatment	22,500,000	21,750,000	2,325	Post
9	1/1/2017	PA American Water	Sadsbury	Chester	Wastewater Collection	9,250,000	8,600,000	998	Post
10	5/28/2018	PA American Water	Exeter	Berks	Wastewater Collection and Treatment	96,000,000	93,500,000	9,000	Post
11	10/29/2018	Aqua PA	East Norriton	Montgomery	Wastewater Collection	21,000,000	21,000,000	4,950	Post
12	9/30/2018	PA American	Kane	McKean	Wastewater Collection and Treatment	17,560,000	17,560,000	2,006	Post
13	12/10/2019	PA American	Royersford	Montgomery	Wastewater Collection and Treatment	13,000,000	13,000,000	1,596	Post
14	12/17/2019	PA American	Valley	Chester	Water Treatment and Distribution System	7,325,000	7,325,000	1,459	Post
15	12/17/2019	PA American	Valley	Chester	Wastewater Collection System	13,950,000	13,950,000	1,644	Post
16	12/31/2019	Aqua PA	Delaware County Regional Wa	Delaware	Wastewater Collection and Treatment	276,500,000	276,500,000	16,473	Post
17	4/28/2020	PA American Water	Upper Pottsgrove	Montgomery	Wastewater Collection	13,750,000	13,750,000	1,428	Post
18	9/17/2020	Aqua PA	Lower Makefield	Bucks	Wastewater Collection and Purchased Treatment Capacity	53,000,000	53,000,000	11,151	Post

In order to arrive at a measure of comparability these system sales were analyzed in relationship of the purchase price to the properties' depreciated original cost (OCLD), depreciated replacement cost (RCNLD), customers, and cashflows (EBITDA) for an average 5 year and 13-year periods (Market Approach tab).

The following tables details the market sales analyses:

Purchase Price to Original Cost less Depreciation (OCLD)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/OCLD

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Depreciated Original Cost (OCLD) (AUS Consultants Determination	Purchase Price to (PP/OCLD)	Variance to Simple Mean	Variance to Wtd Mean	(Variance to Wtd Mean)^2
City of McKeesport	Wastewater Collection and Treatment	159,000,000	19%	80,085,602	1.9854	0.226	0.136	0.0185
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29,500,000	3%	18,567,728	1.5888	-0.1706	-0.2606	0.0679
Limerick Township	Wastewater Collection and Treatment System	64,373,378	8%	46,153,867	1.3948	-0.3646	-0.4546	0.2067
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,000,000	1%	5,383,591	0.9287	-0.8307	-0.9207	0.8477
Mahoning	Water Distribution System	4,734,800	1%	3,507,138	1.3500	-0.4094	-0.4994	0.2494
Mahoning	Wastewater Collection	4,765,200	1%	3,234,859	1.4731	-0.2863	-0.3763	0.1416
Cheltenham	Wastewater Collection	50,250,000	6%	15,784,463	3.1835	1.4241	1.3341	1.7798
Steelton	Water Distribution and Treatment	21,750,000	3%	14,433,435	1.5069	-0.2525	-0.3425	0.1173
Sadsbury	Wastewater Collection	8,600,000	1%	6,128,876	1.4032	-0.3562	-0.4462	0.1991
Exeter	Wastewater Collection and Treatment	93,500,000	11%	40,057,634	2.3341	0.5747	0.4847	0.2349
East Norriton	Wastewater Collection	21,000,000	2%	8,407,007	2.4979	0.7385	0.6485	0.4206
Kane	Wastewater Collection and Treatment	17,560,000	2%	12,070,455	1.4548	-0.3046	-0.3946	0.1557
Royersford	Wastewater Collection and Treatment	13,000,000	2%	5,173,559	2.5128	0.7534	0.6634	0.4401
Valley	Water Treatment and Distribution System	7,325,000	1%	5,370,438	1.3639	-0.3955	-0.4855	0.2357
Valley	Wastewater Collection System	13,950,000	2%	9,214,738	1.5139	-0.2455	-0.3355	0.1126
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	276,500,000	32%	191,774,486	1.4418	-0.3176	-0.4076	0.1661
Upper Pottsgrove	Wastewater Collection	13,750,000	2%	11,769,925	1.1682	-0.5912	-0.6812	0.464
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53,000,000	6%	20,644,920	2.5672	0.8078	0.7178	0.5152
		857,558,378	100%	497,762,721	1.7228			6.3729

Simple Mean			1.7594	Square Root[(Variance to Wtd Mean)^2]/Count
Standard Deviation			0.5882	2.52446
SimpleMedian			1.4900	18
Simple Mode	DELCOR		1.4418	0.140248
Weighted Mean			1.849	
Standard Deviation			0.4204	
Wtd Median			1.4355	
Wtd Mode	DELCOR		1.4418	

Property Acquired		Depreciated Original Cost (OCLD) (AUS Consultants Determination	Purchase Price to (PP/OCLD)	Accummulated OCLD
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,383,591	0.9287	5,383,591
Upper Pottsgrove	Wastewater Collection	11,769,925	1.1682	17,153,516
Mahoning	Water Distribution System	3,507,138	1.35	20,660,654
Valley	Water Treatment and Distribution System	5,370,438	1.3639	26,031,092
Limerick Township	Wastewater Collection and Treatment System	46,153,867	1.3948	72,184,959
Sadsbury	Wastewater Collection	6,128,876	1.4032	78,313,835
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	191,774,486	1.4418	270,088,321
Kane	Wastewater Collection and Treatment	12,070,455	1.4548	282,158,776
Mahoning	Wastewater Collection	3,234,859	1.4731	285,393,635
Steelton	Water Distribution and Treatment	14,433,435	1.5069	299,827,070
Valley	Wastewater Collection System	9,214,738	1.5139	309,041,808
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	18,567,728	1.5888	327,609,536
City of McKeesport	Wastewater Collection and Treatment	80,085,602	1.9854	407,695,138
Exeter	Wastewater Collection and Treatment	40,057,634	2.3965	447,752,772
East Norriton	Wastewater Collection	8,407,007	2.4979	456,159,779
Royersford	Wastewater Collection and Treatment	5,173,559	2.5128	461,333,338
Cheltenham	Wastewater Collection	15,784,463	3.1835	477,117,801
		477,117,801	2.5672	

Middle OCLD			238,558,901
Bottomvalue of the range containng the Middle Value		1.4032	78,313,835
Top value of the range containing the Middle Value		1.4418	270,088,321
Range containng the middle value		0.0386	191,774,486
Range from bottom value to middle value		0.0323	160,245,066
Median Value		1.4355	

Purchase Price to Replacement Cost New less Depreciation (CORLD)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/CORLD

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Replacement Cost New less Depreciation (CORLD)	Purchase Price to CORLD	Variance to Simple Mean	Variance to Wtd Mean	(Variance to Wtd Mean)^2
City of McKeesport	Wastewater Collection and Treatment	159,000,000	19%	156,524,909	1.0158	0.2071	0.0821	0.0067
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29,500,000	3%	30,615,410	0.9636	0.1549	0.0299	0.0009
Limerick Township	Wastewater Collection and Treatment System	64,373,378	8%	73,068,377	0.881	0.0723	-0.0527	0.0028
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,000,000	1%	9,236,581	0.5413	-0.2674	-0.3924	0.154
Mahoning	Water Distribution System	4,734,800	1%	8,899,336	0.532	-0.2767	-0.4017	0.1614
Mahoning	Wastewater Collection	4,765,200	1%	7,991,234	0.5963	-0.2124	-0.3374	0.1138
Cheltenham	Wastewater Collection	50,250,000	6%	49,940,486	1.0062	0.1975	0.0725	0.0053
Steelton	Water Distribution and Treatment	21,750,000	3%	23,921,473	0.9092	0.1005	-0.0245	0.0006
Sadsbury	Wastewater Collection	8,600,000	1%	8,517,587	1.0097	0.2010	0.076	0.0058
Exeter	Wastewater Collection and Treatment	93,500,000	11%	99,589,819	0.9389	0.1302	0.0052	0
East Norriton	Wastewater Collection	21,000,000	2%	27,461,356	0.7647	-0.0440	-0.169	0.0286
Kane	Wastewater Collection and Treatment	17,560,000	2%	29,015,055	0.6052	-0.2035	-0.3285	0.1079
Royersford	Wastewater Collection and Treatment	13,000,000	2%	13,376,109	0.9719	0.1632	0.0382	0.0015
Valley	Water Treatment and Distribution System	7,325,000	1%	11,664,026	0.628	-0.1807	-0.3057	0.0935
Valley	Wastewater Collection System	13,950,000	2%	19,252,333	0.7246	-0.0841	-0.2091	0.0437
Delaware County Regional Water Quality Authority	Wastewater Collection and Treatment	276,500,000	32%	399,664,111	0.6918	-0.1169	-0.2419	0.0585
Upper Pottsgrove	Wastewater Collection	13,750,000	2%	18,460,028	0.7449	-0.0638	-0.1888	0.0356
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53,000,000	6%	51,414,555	1.0308	0.2221	0.0971	0.0094
		857,558,378	100%	1,038,612,785	0.8257			

Simple Mean	0.8087
Standard Deviation	0.1746
SimpleMedian	0.8229
Simple Mode	0.6918
Weighted Mean	0.9337
Standard Deviation	0.1695
Wtd Median	0.7558
Wtd Mode	0.6918

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Replacement Cost New less Depreciation (CORLD)	Purchase Price to CORLD	Accummulated CORLD
Mahoning	Water Distribution System	4734800	1%	8,899,336	0.532	8,899,336
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5000000	1%	9,236,581	0.5413	18,135,917
Mahoning	Wastewater Collection	4765200	1%	7,991,234	0.5963	26,127,151
Kane	Wastewater Collection and Treatment	17560000	2%	29,015,055	0.6052	55,142,206
Valley	Water Treatment and Distribution System	7325000	1%	11,664,026	0.628	66,806,232
Delaware County Regional Water Quality Authority	Wastewater Collection and Treatment	276500000	32%	399,664,111	0.6918	466,470,343
Valley	Wastewater Collection System	13950000	2%	19,252,333	0.7246	485,722,676
Upper Pottsgrove	Wastewater Collection	13750000	2%	18,460,028	0.7449	504,182,704
East Norriton	Wastewater Collection	21000000	2%	27,461,356	0.7647	531,644,060
Limerick Township	Wastewater Collection and Treatment System	64373378	7%	73,068,377	0.881	604,712,437
Steelton	Water Distribution and Treatment	21750000	3%	23,921,473	0.9092	628,633,910
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29500000	3%	30,615,410	0.9636	659,249,320
Exeter	Wastewater Collection and Treatment	96000000	11%	99,589,819	0.964	758,839,139
Royersford	Wastewater Collection and Treatment	13000000	2%	13,376,109	0.9719	772,215,248
Cheltenham	Wastewater Collection	50250000	6%	49,940,486	1.0062	822,155,734
Sadsbury	Wastewater Collection	8600000	1%	8,517,587	1.0097	830,673,321
City of McKeesport	Wastewater Collection and Treatment	159000000	18%	156,524,909	1.0158	987,198,230
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53000000	6%	51,414,555	1.0308	1,038,612,785
		860058378	1	1,038,612,785	0.8281	

Middle OCLD		519,306,393
Bottomvalue of the range containng the Middle Value	0.7449	504,182,704
Top value of the range containing the Middle Value	0.7647	531,644,060
Range containng the middle value	0.0198	27,461,356
Range from bottom value to middle value	0.0109	15,123,689
Median Value	0.7558	

Purchase Price to Customers

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/Customer

Property Acquired	Type of System and Attributes		Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Customers	Purchase Price to Customers	Variance to Simple Mean	Variance to Wtd Mean	(Variance to Wtd Mean)^2
City of McKeesport	Wastewater Collection and Treatment	2	2016.67	159,000,000	19%	21,953	7,243	(720)	(3,719)	13,830,961
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2	2016.59	29,500,000	3%	2,106	14,008	6,045	3,046	9,278,116
Limerick Township	Wastewater Collection and Treatment System	2	2016.88	64,373,378	8%	5,434	11,846	3,883	884	781,456
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2	2017.94	5,000,000	1%	1,248	4,006	(3,957)	(6,956)	48,385,936
Mahoning	Water Distribution System	1	2018.30	4,734,800	1%	1,186	3,992	(3,971)	(6,970)	48,580,900
Mahoning	Wastewater Collection	3	2018.30	4,765,200	1%	1,451	3,284	(4,679)	(7,678)	58,951,684
Cheltenham	Wastewater Collection	3	2018.42	50,250,000	6%	10,500	4,786	(3,177)	(6,176)	38,142,976
Steelton	Water Distribution and Treatment	1	2018.87	21,750,000	3%	2,325	9,355	1,392	(1,407)	2,582,449
Sadsbury	Wastewater Collection	3	2017.00	8,600,000	1%	998	8,617	654	(2,345)	5,499,025
Exeter	Wastewater Collection and Treatment	2	2018.41	93,500,000	11%	9,000	10,389	2,426	(573)	328,329
East Norriton	Wastewater Collection	3	2018.83	21,000,000	2%	4,950	4,242	(3,721)	(6,720)	45,158,400
Kane	Wastewater Collection and Treatment	2	2018.75	17,560,000	2%	2,006	8,754	791	(2,208)	4,875,264
Royersford	Wastewater Collection and Treatment	2	2019.94	13,000,000	2%	1,596	8,145	182	(2,817)	7,935,489
Valley	Water Treatment and Distribution System	1	2019.96	7,325,000	1%	1,459	5,021	(2,942)	(5,941)	35,295,481
Valley	Wastewater Collection System	3	2019.96	13,950,000	2%	1,644	8,485	522	(2,477)	6,135,529
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2	2020.00	276,500,000	32%	16,473	16,785	8,822	5,821	33,907,329
Upper Pottsgrove	Wastewater Collection	3	2020.33	13,750,000	2%	1,428	9,629	1,666	(1,333)	1,776,889
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2	2020.71	53,000,000	6%	11,151	4,753	(3,210)	(6,209)	38,551,681
				857,558,378	100%	96,908	8,849			
Simple Mean							7963			
Standard Deviation							3637			
SimpleMedian							8,315			
Simple Mode							16,785			
Weighted Mean							10962			
Standard Deviation							4613			
Wtd Median							4,963			
Wtd Mode							16,785			
Forecast			2019.944064				7,600			
			2021				7,301			

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Customers	Purchase Price to Customers	Accummulated Customers
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	1,451	3,284	1,451
Mahoning	Water Distribution System	2018.30	4,734,800	1%	1,186	3,992	2,637
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	1,248	4,006	3,885
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	4,950	4,242	8,835
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	11,151	4,753	19,986
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	10,500	4,786	30,486
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	1,459	5,021	31,945
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	21,953	7,243	53,898
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	1,596	8,145	55,494
Valley	Wastewater Collection System	2019.96	13,950,000	2%	1,644	8,485	57,138
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	998	8,617	58,136
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	2,006	8,754	60,142
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	2,325	9,355	62,467
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	1,428	9,629	63,895
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	9,000	10,667	72,895
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	5,434	11,846	78,329
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	2,106	14,008	80,435
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2020.00	860,058,378	100%	96,908	8,875	96,908
Middle OCLD							48,454
Bottomvalue of the range containing the Middle Value						4,786	31,945
Top value of the range containing the Middle Value						5,021	53,898
Range containing the middle value						235	21,953
Range from bottom value to middle value						177	16,509
Median Value						4,963	

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Customers	Purchase Price to Customers	Accummulated Customers
Water Distribution and Treatment							
Mahoning	Water Distribution System	2018.304795	4,734,800	0.005505208	1186	3992	2637
Valley	Water Treatment and Distribution System	2019.963242	7,325,000	0.008518864	1459	5021	31945
Steelton	Water Distribution and Treatment	2018.871689	21,750,000	0.025288981	2325	9355	62467
Mean						6122.66667	
Median						5021	
Wastewater Collection and Treatment							
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.944064	5,000,000	0.005813559	1248	4006	3885
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.713242	53,000,000	0.061623724	11151	4753	19986
City of McKeesport	Wastewater Collection and Treatment	2016.669406	159,000,000	0.184871172	21953	7243	53898
Royersford	Wastewater Collection and Treatment	2019.944064	13,000,000	0.015115253	1596	8145	55494
Kane	Wastewater Collection and Treatment	2018.748858	17,560,000	0.020417219	2006	8754	60142
Exeter	Wastewater Collection and Treatment	2018.410046	96,000,000	0.111620203	9000	10667	72895
Limerick Township	Wastewater Collection and Treatment System	2016.877169	64,373,378	0.074847684	5434	11846	78329
New Garden Twp. SA	Wastewater Collection and Paid for and Owned T	2016.588073	29,500,000	0.034299997	2106	14008	80435
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2020.001598	276,500,000	0.321489805	16473	16785	96908
Mean						9578.55556	
Median						8754	
Wastewater Collection Only							
Mahoning	Wastewater Collection	2018.304795	4,765,200	0.005540554	1451	3284	1451
East Norriton	Wastewater Collection	2018.829452	21,000,000	0.024418947	4950	4242	8835
Cheltenham	Wastewater Collection	2018.419406	50,250,000	0.058426257	10500	4786	30486
Valley	Wastewater Collection System	2019.963242	13,950,000	0.016219829	1644	8485	57138
Sadsbury	Wastewater Collection	2017.00274	8,600,000	0.009999321	998	8617	58136
Upper Pottsgrove	Wastewater Collection	2020.326712	13,750,000	0.015987287	1428	9629	63895
Mean						6507.16667	
Median						6635.5	

Description of Service	Purchase Price per Customer Mean	Median
Water Distribution and Treatment	6,123	5,021
Wastewater Collection and Treatment	9,579	8,754
Wastewater Collection	6,507	6,636
Wastewater Treatment Only	3,072	2,118

Purchase Price to Cash Flows (EBITDA Period 1-5)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/Cash Flow (EBITDA Periods 1-5)

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-5)	Purchase Price to Cash Flow	Variance to Simple Mean	Variance to Wtd Mean	Variance Squared	Wtd Mean Cash Flow
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	19%	7,409,096	21.46	3.98	6.14	37.70	3.98
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	1,717,347	17.18	(0.30)	1.86	3.46	0.59
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	8%	3,542,124	18.17	0.69	2.85	8.12	1.36
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	283,367	17.64	0.16	2.32	5.38	0.10
Mahoning	Water Distribution System	2018.30	4,734,800	1%	233,922	20.24	2.76	4.92	24.21	0.11
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	233,922	20.37	2.89	5.05	25.50	0.11
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,754,020	10.57	(6.91)	(4.75)	22.56	0.62
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	2,278,514	9.55	(7.93)	(5.77)	33.29	0.24
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	714,645	12.03	(5.45)	(3.29)	10.82	0.12
Exeter	Wastewater Collection and Treatment	2018.41	93,500,000	11%	7,279,978	12.84	(4.64)	(2.48)	6.15	1.40
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	1,265,269	16.60	(0.88)	1.28	1.64	0.41
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,039,593	16.89	(0.59)	1.57	2.46	0.35
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	600,765	21.64	4.16	6.32	39.94	0.33
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	398,458	18.38	0.90	3.06	9.36	0.16
Valley	Wastewater Collection System	2019.96	13,950,000	2%	392,972	35.50	18.02	20.18	407.23	0.58
Delaware County Regional Wa	Wastewater Collection and Treatment	2020.00	276,500,000	32%	25,883,282	10.68	(6.80)	(4.64)	21.53	3.44
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	845,182	16.27	(1.21)	0.95	0.90	0.26
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	2,839,988	18.66	1.18	3.34	11.16	1.15
			857,558,378	100%	61,712,444					
Simple Mean						17.48				
Standard Deviation						5.71				
SimpleMedian						17.41				
Simple Mode						Not Applicable				
Weighted Mean						15.32				
Standard Deviation						5.10				
Wtd Median						18.13				
Wtd Mode						Not Applicable				

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-5)	Purchase Price to Cash Flow	Accummulated Cashflow (EBITDA Period 1-5)
Steelton	Water Distribution and Treatment	2018.871689	21750000	0.025288981	2278514	9.55	9.55
Cheltenham	Wastewater Collection	2018.419406	50250000	0.058426267	4754020	10.57	20.12
Delaware County Regional Wa	Wastewater Collection and Treatme	2020.001598	276500000	0.321489805	25883282	10.68	30.8
Sadsbury	Wastewater Collection	2017.00274	8600000	0.009999321	714645	12.03	42.83
Exeter	Wastewater Collection and Treatme	2018.410046	96000000	0.11162033	7279978	13.19	56.02
Upper Pottsgrove	Wastewater Collection	2020.326712	13750000	0.015987287	845182	16.27	72.29
East Norriton	Wastewater Collection	2018.829452	21000000	0.024416947	1265269	16.6	88.89
Kane	Wastewater Collection and Treatme	2018.748858	17560000	0.020417219	1039593	16.89	105.78
New Garden Twp. SA	Wastewater Collection and Paid for	2016.586073	29500000	0.034299997	1717347	17.18	122.96
East Bradford Township	Wastewater Collection and paid for	2017.944064	5000000	0.005813559	283367	17.64	140.6
Limerick Township	Wastewater Collection and Treatme	2016.877169	64373378	0.074847684	3542124.2	18.17	158.77
Valley	Water Treatment and Distribution Sy	2019.963242	7325000	0.008516864	398458	18.38	177.15
Lower Makefield	Wastewater Collection and Purchase	2020.713242	53000000	0.061623724	2839988	18.66	195.81
Mahoning	Water Distribution System	2018.304795	4734800	0.005505208	233922	20.24	216.05
Mahoning	Wastewater Collection	2018.304795	4765200	0.005540554	233922	20.37	236.42
City of McKeesport	Wastewater Collection and Treatme	2016.669406	159000000	0.184871172	7409096	21.46	257.88
Royersford	Wastewater Collection and Treatme	2019.944064	13000000	0.015115253	600765	21.64	279.52
Valley	Wastewater Collection System	2019.963242	13950000	0.016219829	392972	35.5	315.02
			860058378	1	61712444.2		
Middle Cash Flow							157.51
Bottomvalue of the range containing the Middle Value						17.64	140.60
Top value of the range containing the Middle Value						18.17	158.77
Range containg the middle value						0.53	18.17
Range from bottom value to middle value						0.49	16.91
Median Value						18.13	

Purchase Price to Cash Flows (EBITDA Periods 1-13)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/Cash Flow (EBITDA Periods 1-13)

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-13)	Purchase Price to Cash Flow	Variance to Simple Mean	Variance to Wtd Mean	Variance Squared	Wtd Mean Cash Flow
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	19%	11,958,224	13.30	1.68	1.85	3.42	2.47
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	2,625,115	11.24	(0.38)	(0.21)	0.04	0.39
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	8%	5,212,045	12.35	0.73	0.90	0.81	0.93
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	632,892	7.90	(3.72)	(3.55)	12.60	0.05
Mahoning	Water Distribution System	2018.30	4,734,800	1%	348,409	13.59	1.97	2.14	4.58	0.08
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	348,409	13.68	2.06	2.23	4.97	0.08
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,326,210	11.62	-	0.17	0.03	0.68
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	3,893,757	5.59	(6.03)	(5.86)	34.34	0.14
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	895,128	9.61	(2.01)	(1.84)	3.39	0.10
Exeter	Wastewater Collection and Treatment	2018.41	93,500,000	11%	8,011,315	11.67	0.05	0.22	0.05	1.27
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	2,011,465	10.44	(1.18)	(1.01)	1.02	0.26
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,446,948	12.14	0.52	0.69	0.48	0.25
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	1,209,765	10.75	(0.87)	(0.70)	0.49	0.16
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	817,993	8.95	(2.67)	(2.50)	6.25	0.08
Valley	Wastewater Collection System	2019.96	13,950,000	2%	844,046	16.53	4.91	5.08	25.81	0.27
Delaware County Regional Water Q	Wastewater Collection and Treatment	2020.00	276,500,000	32%	28,960,162	9.55	(2.07)	(1.90)	3.61	3.08
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	932,042	14.75	3.13	3.30	10.89	0.24
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	3,432,340	15.44	3.82	3.99	15.92	0.95
			857,558,378	100%	77,906,265					

Simple Mean	11.62
Standard Deviation	2.67
SimpleMedian	11.65
Simple Mode	Not Applicable
Weighted Mean	11.45
Standard Deviation	2.14
Wtd Median	12.07
Wtd Mode	Not Applicable

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-13)	Purchase Price to Cash Flow	Accummulated Cashflow (EBITDA Period 1-13)
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	3,893,757	5.59	5.59
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	632,892	7.90	13.49
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	817,993	8.95	22.44
Delaware County Regional Water Q	Wastewater Collection and Treatment	2020.00	276,500,000	32%	28,960,162	9.55	31.99
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	895,128	9.61	41.60
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	2,011,465	10.44	52.04
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	1,209,765	10.75	62.79
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	2,625,115	11.24	74.03
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,326,210	11.62	85.65
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	8,011,315	11.98	97.63
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,446,948	12.14	109.77
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	5,212,045	12.35	122.12
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	11,958,224	13.30	135.42
Mahoning	Water Distribution System	2018.30	4,734,800	1%	348,409	13.59	149.01
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	348,409	13.68	162.69
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	932,042	14.75	177.44
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	3,432,340	15.44	192.88
Valley	Wastewater Collection System	2019.96	13,950,000	2%	844,046	16.53	209.41
			860,058,378	100%	77,906,265		

Middle Cash Flow		104.71
Bottomvalue of the range containng the Middle Value	11.98	97.63
Top value of the range containing the Middle Value	12.14	109.77
Range containng the middle value	0.16	12.14
Range from bottom value to middle value	0.09	7.08
Median Value	12.07	

Financial Market Ratios – In the market approach based on market financial ratios the market data of companies (nine) in the water industry as reported in Value Line Investment Surveys (April 2021) 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 which is detailed in the following table:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Comparable Sales Approach

Financial Basis[1]

	Industry Averages	American & Aqua Averages	American States Water	American Water	Aqua America	California Water	Consol. Water Co.	Middlesex Water	SJW Corp	York	Totals
Price per Share			87.33	123.05	47.08	51.52	16.46	63.56	71.79	46.38	
Book value per share			16.1	34.4	18	15.85	10.95	15.7	31.2	10.4	
Market to Book Equity Ratio			5.42	3.58	2.62	3.25	1.5	4.05	2.3	4.46	
Minimum	1.5	2.62									
Mean	3.40	3.1		3.58	2.62						
Standard Deviation	1.18	0.480									
Weighted Market to Debt Ratio	3.41		20,013.22	112,367.28	34,710.24	11,207.07	371.03	5,481.74	5,874.18	3,135.10	193,159.86
Median	3.415	3.1									
Maximum	5.42	3.58									
Debt (Total) $s millions			475.3	9,143.0	3,086.4	967.9	-	294.0	511.1	100.7	
Outstanding Shares (millions)			36.84	180.78	215.84	48.15	15.03	16.67	28.46	12.98	
Debt per share			12.9	50.58	14.3	20.1	0	17.64	17.96	7.76	
Equity (Total) $s millions			3,217.18	22,244.51	10,161.78	2,480.43	247.35	1,059.52	2,042.89	602.24	
Total Capital (Debt + Equity)			3,692.48	31,387.51	13,248.18	3,448.33	247.35	1,353.52	2,553.99	702.94	56,634.30
			0.07	0.55	0.23	0.06	-	0.02	0.05	0.01	0.99
Market Value per Share (Equity+Debt)			100.23	173.63	61.38	71.62	16.46	81.2	89.75	54.14	
Book Value per Share (Equity+Debt)			29	84.98	32.3	35.95	10.95	33.34	49.16	18.16	
Market to Book (Total Capital) Ratio			3.46	2.04	1.9	1.99	1.5	2.44	1.83	2.98	
Minimum	1.5	1.9									
Mean	2.27	1.97		2.04	1.9						
Standard Deviation	0.61	0.070									
Weighted Market to Book (Debt&Equity) Ratio	2.11		12,775.97	64,030.52	25,171.55	6,862.18	371.03	3,302.58	4,673.80	2,094.75	119,282.38
Variance to Wtd Mean	0.1392		1.35	(0.07)	(0.21)	(0.12)	(0.61)	0.33	(0.28)	0.87	
Median	2.015	1.97									
Maximum	3.46	2.04									

1. Value Line Investment Survey January 10, 2020
2. Value Line dropped Connecticut Water in its January 10, 2020 publication

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
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Central Tendancy and Reliability Analysis

Market Sales Analysis - PP/OCLD

	Simple	Weighted	
Mean	1.7594	1.8494	
Standard Deviation	0.5882	0.4204	
Median	1.49	1.4355	
Mode	1.4418	1.4418	
Conclusion		1.8494	AUS Input
The York City Sewer Authority Wastewater System OCLD		115,727,779	Cost Approach - OCLD
Market Value Indication		**214,026,955**	

Market Sales Analysis - PP/CORLD

	Simple	Weighted	
Mean	0.8087	0.9337	
Standard Deviation	0.1746	0.1695	
Median	0.8229	0.7558	
Mode	0.6918	0.6918	
Conclusion		0.9337	AUS Input
The York City Sewer Authority Wastewater System CORLD		236,987,901	Cost Approach - CORLD
Market Value Indication		**221,275,603**	

Market Sales Analysis - PP/Customer

	Simple	Weighted	
Water Tretment & Distribution			
Mean	6,123	10,962	
Standard Deviation		4,613	
Median	5,021	4,963	
Wastewater Collection & Treatment		16,785	
Mean	9,579		
Standard Deviation		-	AUS Input
Median	8,754		
Wastewater Collection			
Mean	6,507		
Standard Deviation			
Median	6,636		
Watewater Treatment Only			
Mean	3,072		
Standard Deviation			
Median	2,118		
The York City Sewer Authority Wastewater System Customers		13,733	AUS Input
Wastewater Collection & Treatment PP/Customer		8,754	AUS Input
Collection and Treatement Customers Market Value Indica		**120,218,682**	

Financial Basis[1]

Financial Markets	Market Value per Share to Book Value per Share	
Market to Book (equity)	3.40	
Market to Book (equity and debt)	2.11	
Use (equity and debt)	2.11	AUS Input
The York City Sewer Authority Wastewater System OCLD	97,106,105	Cost Approach - OCLD
Market Value Indication	**204,893,882**	

Treatement Only Market Value Indication

Treatment Only PP/customer	2,118	AUS Input
York's Treatment Only Customers	34,490	AUS Input
Market Value Indication Treatment Only	**73,049,820**	

Total Market Value Indication **193,268,502**

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-5)

	Simple	Weighted	
Mean	17.48	15.32	
Standard Deviation	5.71	5.10	
Median	17.41	18.13	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		18.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		13,874,600	Income Approach
Market Value Indication		**249,742,796**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-13)

	Simple	Weighted	
Mean	11.62	11.45	
Standard Deviation	2.67	2.14	
Median	11.65	12.07	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		12.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		18,001,021	Income Approach
Market Value Indication		**216,012,253**	

Summary of Market Analyses

Indicators	
OCLD	214,026,955
CORLD	221,275,603
Customers	193,268,502
Cash Flows	
EBITDA Periods 1-5	249,742,796
EBITDA Periods 1-13	216,012,253
Value Line	204,893,882
Mean	216,536,665
Median	215,019,604
Conclusion	**221,275,603**

The market approach conclusion of this appraisal was determined to be $221,275,603.

Cost Approach Revisited – Before concluding this appraisal's fair market value, the preliminary cost approach conclusion of $236,987,901 needs to be evaluated to determine if external obsolescence exists in the preliminary replacement cost new less depreciation conclusion of $236,987,901. The appraisal literature regarding developing a cost approach state:

> "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 $249,288,076 and the market approach conclusion of $221,275,603 for the York City's future wastewater system compared to the preliminary cost approach conclusion of $236,987,901 indicates no significant external obsolescence exists in the cost approach conclusion of $236,987,901 detailed as follows:

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

Pennsylvania American Water Company
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Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

(36)	(37)	(38)	(39)	(40)	(41)
Account	Description	Placement Year	Preliminary Cost Approach CORLD $s	Economic Obsolescence % of Preliminary Cost Approach	Fair Market Value Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	CORLD	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
	Accounts 354.3, 355, 360 - Structures & Improvements - Pumping				
	7.5 HP Smith & Loveles Package Pump				
354.4	Station	1980	146,312	0.00%	146,312
354.4	Wet Well Structure	1980	18,811	0.00%	18,811
354.4	Valve Vault	1980	3,311	0.00%	3,311
354.4	Plug Valves	1980	3,461	0.00%	3,461
354.4	Check Valves	1980	2,859	0.00%	2,859
380	Generator	1980	10,872	0.00%	10,872
354.4	Automatic Transfer Switch	1980	2,634	0.00%	2,634
354.4	Forcemain (ft)	1980	49,362	0.00%	49,362
	Subtotal Accounts 354.3, 355, 360 - Structures & Improvements - Pumping		195,277		195,277

Therefore, the preliminary cost approach conclusion of $236,987,901 can be considered the final cost approach conclusion as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Fair Market Value

(36)	(37)	(39)	(40)	(41)
Account	Description	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
		CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Prelim CORLD	EO%	FMV
353.00	Land & Land Rights - Land	3,527,270	0.00%	3,527,270
353.05	Land & Land Rights - Easements	1,794,835	0.00%	1,794,835
354.30	Stuctures & Improvements - Pumping	108,901	0.00%	108,901
354.40	Stuctures & Improvements - Treatment	106,434,616	0.00%	106,434,616
355.30	Generating Equipment - Pumping	6,118	0.00%	6,118
360.21	Collection Sewers - Force - Mains	80,258	0.00%	80,258
361.00	Mains Gravity	46,659,867	0.00%	46,659,867
361.70	Collection Sewers - Gravity - Manholes	9,902,159	0.00%	9,902,159
363.00	Service Laterals	7,389,193	0.00%	7,389,193
364.00	Flow Measuring Devices	85,852	0.00%	85,852
371.20	Pumping Equipment	71,710	0.00%	71,710
380.00	Treatment and Disposal Equipment	41,866,791	0.00%	41,866,791
390.00	Office Furniture and Equipment	31,919	0.00%	31,919
391.00	Transportation Equipment	97,104	0.00%	97,104
394.00	Laboratory Equipment	309,634	0.00%	309,634
	Grand Total	218,366,227	0.00%	218,366,227

Value Conclusion

The Fair Market Value of the York City's wastewater property, plant and equipment and its operation were determined to be $240,336,741 as follows:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Fair Market Value Appraisal

Appraisal Approach		Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach				
Inventory of Assets				
Original Cost ($OC)		155,875,776		
Depreciated Original Cost ($OCLD)		97,106,105		
Intangible Assets (Treatement contracts)		18,621,674		
Cost Approach of all assets Conclusion		115,727,779		
Replacement Cost				
Replacement Cost New (COR)		474,152,569		
Depreciated Replacement Cost New (CORLD)	**$**	**218,366,227**		
External or Economic Obsolescence	**$**	-	AUS Input	
Market Value of Tangible Assets	**$**	**218,366,227**		
Intangible Assets (Treatement contracts)	$	18,621,674		
Cost Approach of all assets Conclusion		**236,987,901**		
Cost Approach Conclusion		**236,987,901**	**50%**	**118,493,951**
Income Approach				
Required Rate Increases: 30% period 3,25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)		249,288,076		
Income Approach Conclusion		**249,288,076**	**40%**	**99,715,230**
Market Approach				
Market Comparables (to)				
OCLD		214,026,955		
CORLD		221,275,603		
Customers		193,268,502		
Cash Flows (EBITDA)		249,742,796		
Market Financials (to)				
OCLD		204,893,882		
Market Approach Conclusion		**221,275,603**	**10%**	**22,127,560**
Appraisal Conclusion	**$**	**240,336,741**	**100%**	**240,336,741**
Conclusion (cost approach)	**$**	**236,987,901**		

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 the York City's wastewater collection and treatment system's property, plant and equipment this appraisal's conclusion of $240,336,741 is consistent with the purpose of the appraisal. As the cost approach work papers detail our value conclusion by National Association of Regulatory Utility Commissioners' (NARUC) Uniform System of Accounts (USOA) for the water industry account classifications and the installation year of the property, this detail can be used to allocate the appraisal conclusion to establish the booked value for future accounting and rate making.

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

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 York City's (PA) Wastewater System (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 system consists of collection mains and laterals of various sizes and types, pumping structures, improvements and equipment, and purchased treatment capacity. 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 into the income approach to value analysis in this appraisal.

- State the real property interests appraised
  The system's land and land rights agreements necessary to access its property.

- State the type and definition of value and city 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." <u>The Appraisal of Real Estate</u>, 12th Edition, page 22.

- State the effective date of the appraisal and the date of the report
  The effective date of the appraisal is April 6, 2021 and the appraisal report date is June 7, 2021.

- 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:

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

Fulfillment of Requirements for a Personal Property Appraisal and Report

Cost Approach – The cost approach utilized the trended cost method utilizing the investment inventory developed by Gateway Engineers "Engineers Assessment". 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 that facilitates the development of cash flows from operations as the property migrates from municipal operation to a regulated investor-owned operation. The Borough's operating experience was analyzed (2011-2020) in order to estimate the initial cash flows. Future customer tariff rates address the rates agreed to by the parties in the Asset Purchase Agreement between the parties. 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

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

Fulfillment of Requirements for a Personal Property Appraisal and Report

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

- 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.

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

Fulfillment of Requirements for a Personal Property Appraisal and Report

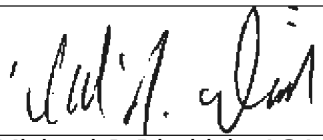
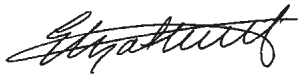
AUS Consultants, Valuation and Depreciation Services Group certify that, to the best of its knowledge and belief:

- 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 not performed an appraisal of the York city's sanitary wastewater collection 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 2020-2021.
- The signers of this report have made a personal inspection of the property that is the subject of this report.
- Individuals providing significant appraisal assistance to the person signing this certification include: Scott Fogelsanger of Pennsylvania American Wastewater Company provided information obtained from the York City and the Engineer's Assessment report prepared by Buchart Horn Engineers which was the inventory starting point of the Cost Approach.

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

Fulfillment of Requirements for a Personal Property Appraisal and Report

AUS Consultants, Depreciation & Valuation
By:

	
Jerome C. Weinert, AM, 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

ASA: Accredited Senior Appraiser in the Machinery and Equipment (Public Utilities) discipline of the American Society of Appraisers
AMA: Accredited Member 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

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Valuation Summary

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Fair Market Value Appraisal

Appraisal Approach		Investor-owned Utility	Weight	Wtd Valuation Indications
Cost Approach				
Inventory of Assets				
Original Cost ($OC)		155,875,776		
Depreciated Original Cost ($OCLD)		97,106,105		
Intangible Assets (Treatement contracts)		18,621,674		
Cost Approach of all assets Conclusion		115,727,779		
Replacement Cost				
Replacement Cost New (COR)		474,152,569		
Depreciated Replacement Cost New (CORLD)	$	**218,366,227**		
External or Economic Obsolescence	$	-	AUS Input	
Market Value of Tangible Assets	$	**218,366,227**		
Intangible Assets (Treatement contracts)	$	18,621,674		
Cost Approach of all assets Conclusion		**236,987,901**		
Cost Approach Conclusion		**236,987,901**	50%	**118,493,951**
Income Approach				
Required Rate Increases: 30% period 3,25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)		249,288,076		
Income Approach Conclusion		**249,288,076**	40%	**99,715,230**
Market Approach				
Market Comparables (to)				
OCLD		214,026,955		
CORLD		221,275,603		
Customers		193,268,502		
Cash Flows (EBITDA)		249,742,796		
Market Financials (to)				
OCLD		204,893,882		
Market Approach Conclusion		**221,275,603**	10%	**22,127,560**
Appraisal Conclusion	$	**240,336,741**	**100%**	**240,336,741**
Conclusion (cost approach)	$	236,987,901		

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach

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The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

	Column Reference in OCLD & RCNLD	Amount in $s		
Depreciated Replacement Cost (RCNLD)				
Original Cost (OC)	(9)	155,875,776		
Replacement Cost New (RCN)	(16)	474,152,569		
Replacement Cost New less Depreciation (RCNLD)	(31)	218,366,227	235,000,000.00	Purchase Price
Intangible Assets - Treatment Contracts		18,621,674		
				Economic
Fair Market Vaue (FMV)	(41)	236,987,901	0	Obsolescence
			1.00000000	Condition
Depreciated Original Cost (OCLD)				
Original Cost (OC)	(46)	155,875,776		
Original Cost less Depreciation (OCLD)	(57)	97,106,105		
Intangible Assets - Treatment Contracts		18,621,674		
Depreciated Original Cost (OCLD)		115,727,779		
Cost Approach Conclusion		236,987,901		

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Income Approach to Trearment Agreements Valuation

Municipality	2019 YTD Projected	2020 Proposed Budget	Expenses	Operating Income	Value Capitalized @ 5.79%
					5.79%
Manchester Township					
Treatment Charge	934,716	975,132			
Sewer charge	1,348	-			
Subtotal Manchester Twp	936,064	975,132	778,813	196,319	3,390,656
North York Borough					
Treatment Charge	162,028	131,363			
Sewer charge	1,698	-			
Subtotal North York Borough	163,726	131,363	104,916	26,447	456,770
Spring Garden Township					
Treatment Charge	1,254,860	1,073,344			
Sewer charge	12,122	-			
Subtotal Spring Garden Twp	1,266,982	1,073,344	857,252	216,092	3,732,159
Springettsbury Township					
Treatment Charge	230,000	230,000			
Sewer charge	66,968	43,842			
Subtotal Springettbury Twp	296,968	273,842	218,711	55,131	952,176
West Manchester Township					
Treatment Charge	1,165,146	976,106			
Sewer charge	12,909	-			
Subtotal West Manchester Twp	1,178,055	976,106	779,591	196,515	3,394,041
West York Borough					
Treatment Charge	939,536	889,714			
Sewer charge	6,073	-			
Subtotal West York Borough	945,609	889,714	710,592	179,122	3,093,644
York Township					
Treatment Charge	1,220,088	1,035,977			
Sewer charge	11,480	-			
Subtotal York Township	1,231,568	1,035,977	827,408	208,569	3,602,228
York City					
Treatment Charge	3,298,215	2,941,956			
Sewer charge					
Subtotal York City	3,298,215	2,941,956	2,349,665		
Total Revenues					
Treatment Charge	9,204,589	8,253,592	6,626,949		
Sewer charge	112,598	43,842			
Total Revenues	9,317,187	8,297,434	6,626,949		18,621,674

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach
Replacement Cost New

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(9)	(10)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Original Cost	Costing Parameter	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
			OC $s			RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt NARUC Code	AUS Input NARUC Code	City of York Wastewater Assets Detail by Buchart Horn Engineers Asset Description	Eng Assmnt Original Cost	AUS Input Cost Index Table	Translator	RCN	AUS Input COR / RCN Factor	Col (14) * (15) COR
353.00	353.00	Land & Land Rights - Land	40,501.00	USBLS3	4.42	179,118	19.69	3,527,270
353.05	353.05	Land & Land Rights - Easements	94,374.54	USBLS3	18.29	1,726,290	1.04	1,794,835
354.30	354.30	Stuctures & Improvements - Pumping	141,754.43	HWW-18	4.21	596,786	1.00	596,786
354.40	354.40	Stuctures & Improvements - Treatment	85,546,239.79	HWW-115	2.73	233,812,447	1.00	233,812,447
355.30	355.30	Generating Equipment - Pumping	15,032.64	USBLS4	2.71	40,784	1.00	40,784
360.21	360.21	Collection Sewers - Force - Mains	42,592.47	HWW-144	3.90	166,068	1.00	166,068
361.00	361.00	Mains Gravity	26,712,768.07	HWW-144	3.33	88,834,842	1.00	88,834,842
361.70	361.70	Collection Sewers - Gravity - Manholes	5,351,533.58	HWW-145	6.08	32,534,869	1.00	32,534,869
363.00	363.00	Service Laterals	2,039,891.94	HWW-139	21.62	44,097,551	1.00	44,097,551
364.00	364.00	Flow Measuring Devices	90,155.20	HWW-140	1.58	142,103	1.00	142,103
371.20	371.20	Pumping Equipment	36,252.00	HWW-19	9.88	358,069	1.00	358,069
380.00	380.00	Treatment and Disposal Equipment	34,672,151.67	HWW-117	1.93	66,780,665	1.00	66,780,665
390.00	390.00	Office Furniture and Equipment	60,303.60	AUST-115	1.10	66,154	1.00	66,154
391.00	391.00	Transportation Equipment	436,060.94	AUST-14	1.28	556,990	1.00	556,990
394.00	394.00	Laboratory Equipment	596,164.28	AUST-17	1.41	843,136	1.00	843,136
		Grand Total	155,875,776.15	-	3.02	470,735,872	1.01	474,152,569

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
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Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(3)				
		(3a)	(3b)	(3c)	(3d)	(3e)
Account Number	Description	Costing Parameters				Reproduction to Replacement Cost Factor
		Index Series	Table	Line Reference	Lookup	AUS Input
353.00	Land & Land Rights - Land	USBLS	PPI	3.00	USBLS3	1.00
353.05	Land & Land Rights - Easements	USBLS	PPI	3.00	USBLS3	1.00
354.30	Stuctures & Improvements - Pumping	HW	W-1	8.00	HWW-18	1.00
354.40	Stuctures & Improvements - Treatment	HW	W-1	15.00	HWW-115	1.00
355.30	Generating Equipment - Pumping	USBLS	PPI	4.00	USBLS4	1.00
360.21	Collection Sewers - Force - Mains	HW	W-1	44.00	HWW-144	1.00
361.00	Mains Gravity	HW	W-1	44.00	HWW-144	1.00
361.70	Collection Sewers - Gravity - Manholes	HW	W-1	45.00	HWW-145	1.00
363.00	Service Laterals	HW	W-1	39.00	HWW-139	1.00
364.00	Flow Measuring Devices	HW	W-1	40.00	HWW-140	1.00
371.20	Pumping Equipment	HW	W-1	9.00	HWW-19	1.00
380.00	Treatment and Disposal Equipment	HW	W-1	17.00	HWW-117	1.00
390.00	Office Furniture and Equipment	AUS	T-1	15.00	AUST-115	1.00
391.00	Transportation Equipment	AUS	T-1	4.00	AUST-14	1.00
394.00	Laboratory Equipment	AUS	T-1	7.00	AUST-17	1.00

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Valuation as of 4-6-2021

Current cost of Easements

Activity	Engineer	Legal	Fees	Total
Determine the facilities for which a Easment is need	1	0	0	
Locate the Land owner for the property needing a easement	1	1	0	
Develop a diagram o the Property, the facilities, and the easement	2	0	0	
Develop the easement document	1	1	0	
Visit the property owner to obtain permission for the easement and sign the easment documentation	4	0	0	
Register the easement with the Municipal Clerk	0	1	250	
Total	9	3	250	
Labor Costs per Hour	54	100		
Total Cost	486	300	250	1,036

Appendix A-5-1 (AUS)

Comparable Sales Statistics
City of York PA and around Wastewater Treatment Plant

	Low	Average	Median	High	Count
Price					
For sale & UC/Pending	$ 45,000	$ 1,218,001	$ 839,700	$ 5,000,000	30
Sold Transactons	$ 1,760	$ 911,748	$ 450,000	$ 6,500,000	33
Parcel Size (acres)					
For sale & UC/Pending	0.21	15.87	5.395	116.87	34
Sold Transactons	0.06	12.17	1.59	202.61	49
Price per Acre					
For sale & UC/Pending	$ 23,260	$ 77,740	$ 150,357	$ 1,244,344	30
Sold Transactons	$ 164	$ 45,943	$ 116,105	$ 1,936,000	23
Days on the Market					
For sale & UC/Pending	45	1,433	859	7,775	34
Sold Transactons	26	557	250	4,920	26
Sale Price to Asking Price Ratio					
Sold Transactons	55.70%	81.03%	79.31%	108.33%	6.00%

Pennsylvania American Water Company

York City Sewer Authority's
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Cost Approach
Replacement Cost New less Depreciation

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The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
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Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	City of York Wastewater Assets Detail by Buchart Horn Engineers		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.00	Land & Land Rights - Land	73.39	3,527,270	ZNonDep	-	-	-	-	3,527,270
353.05	Land & Land Rights - Easements	93.94	1,794,835	ZNonDep	-	-	-	-	1,794,835
354.30	Stuctures & Improvements - Pumping	40.50	596,786	R4.0	45.00	9.04	49.54	45.00	108,901
354.40	Stuctures & Improvements - Treatment	33.18	233,812,447	R4.0	55.00	25.40	58.57	55.00	106,434,616
355.30	Generating Equipment - Pumping	40.50	40,784	R3.0	35.00	5.25	45.75	35.00	6,118
360.21	Collection Sewers - Force - Mains	40.50	166,068	R3.0	75.00	37.88	78.38	75.00	80,258
361.00	Mains Gravity	42.65	88,834,842	R2.5	80.00	44.32	86.97	80.00	46,659,867
361.70	Collection Sewers - Gravity - Manholes	65.46	32,534,869	S2.0	75.00	25.66	91.12	75.00	9,902,159
363.00	Service Laterals	76.98	44,097,551	R3.0	50.00	8.44	85.42	50.00	7,389,193
364.00	Flow Measuring Devices	13.75	142,103	S2.0	30.00	18.72	32.47	30.00	85,852
371.20	Pumping Equipment	47.62	358,069	R3.0	35.00	7.11	54.73	35.00	71,710
380.00	Treatment and Disposal Equipment	18.98	66,780,665	R2.0	45.00	29.75	48.74	45.00	41,866,791
390.00	Office Furniture and Equipment	6.50	66,154	R3.0	12.00	6.06	12.56	12.00	31,919
391.00	Transportation Equipment	26.49	556,990	R3.0	15.00	2.67	29.17	15.00	97,104
394.00	Laboratory Equipment	19.09	843,136	R3.0	20.00	7.54	26.63	20.00	309,634
Grand Total		39.75	474,152,569		58.42	27.62	66.47	0.46	218,366,227

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.00	Land & Land Rights - Land	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.05	Land & Land Rights - Easements	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
360.21	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.00	Mains Gravity	R2.5	80.00	0.00%	MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	50.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	S2.0	30.00	0.00%	MACRS	25.00
371.20	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.00	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach

Replacement Cost New less Depreciation to Fair Market Value

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As of April 6, 2021

Fair Market Value

(36)	(37)	(39)	(40)	(41)
Account	Description	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
		CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Prelim CORLD	EO%	FMV
353.00	Land & Land Rights - Land	3,527,270	0.00%	3,527,270
353.05	Land & Land Rights - Easements	1,794,835	0.00%	1,794,835
354.30	Stuctures & Improvements - Pumping	108,901	0.00%	108,901
354.40	Stuctures & Improvements - Treatment	106,434,616	0.00%	106,434,616
355.30	Generating Equipment - Pumping	6,118	0.00%	6,118
360.21	Collection Sewers - Force - Mains	80,258	0.00%	80,258
361.00	Mains Gravity	46,659,867	0.00%	46,659,867
361.70	Collection Sewers - Gravity - Manholes	9,902,159	0.00%	9,902,159
363.00	Service Laterals	7,389,193	0.00%	7,389,193
364.00	Flow Measuring Devices	85,852	0.00%	85,852
371.20	Pumping Equipment	71,710	0.00%	71,710
380.00	Treatment and Disposal Equipment	41,866,791	0.00%	41,866,791
390.00	Office Furniture and Equipment	31,919	0.00%	31,919
391.00	Transportation Equipment	97,104	0.00%	97,104
394.00	Laboratory Equipment	309,634	0.00%	309,634
	Grand Total	218,366,227	0.00%	218,366,227

Pennsylvania American Water Company

York City Sewer Authority's
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Original Cost less Depreciation

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Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(46)	(47)	(48)	(49)	(53)	(54)	(55)	(56)	(57)
Account	Description	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Normal Remaining Life	Total Life Expectancy	Theoretical Reserve Percent	Theoretical Reserve	Depreciated Original Cost
Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input			Col (46) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)
Acct	Descrip	Original Cost	Iowa	Normal Life	age	Rem Life	Total Life	Theo%	Theo Reserve	Net Book
353.00	Land & Land Rights - Land	40,501	ZNonDep	-	37.40	-	-	0.00%	-	40,501
353.05	Land & Land Rights - Easements	94,375	ZNonDep	-	69.85	-	-	0.00%	-	94,375
354.30	Stuctures & Improvements - Pumping	141,754	R4.0	45.00	40.50	9.04	49.54	82.00%	115,887	25,867
354.40	Stuctures & Improvements - Treatment	85,546,240	R4.0	55.00	24.10	32.05	56.15	42.00%	36,191,585	49,354,655
355.30	Generating Equipment - Pumping	15,033	R3.0	35.00	40.50	5.25	45.75	85.00%	12,778	2,255
360.21	Collection Sewers - Force - Mains	42,592	R3.0	75.00	40.50	37.88	78.38	52.00%	22,008	20,584
361.00	Mains Gravity	26,712,768	R2.5	80.00	28.77	54.61	83.39	34.00%	9,053,947	17,658,821
361.70	Collection Sewers - Gravity - Manholes	5,351,534	S2.0	75.00	36.18	44.44	80.63	42.00%	2,271,877	3,079,657
363.00	Service Laterals	2,039,892	R3.0	50.00	50.32	18.54	68.85	64.00%	1,300,430	739,462
364.00	Flow Measuring Devices	90,155	S2.0	30.00	9.11	22.22	31.34	27.00%	24,377	65,778
371.20	Pumping Equipment	36,252	R3.0	35.00	34.50	12.11	46.61	66.00%	24,092	12,160
380.00	Treatment and Disposal Equipment	34,672,152	R2.0	45.00	12.84	34.42	47.26	26.00%	9,017,836	25,654,316
390.00	Office Furniture and Equipment	60,304	R3.0	12.00	6.50	6.06	12.56	52.00%	31,209	29,095
391.00	Transportation Equipment	436,061	R3.0	15.00	26.02	2.73	28.75	82.00%	358,721	77,340
394.00	Laboratory Equipment	596,164	R3.0	20.00	16.52	8.64	25.16	58.00%	344,924	251,240
Grand Total		155,875,776		57.35	23.17	36.45	59.57	37.70%	58,769,671	97,106,105

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.00	Land & Land Rights - Land	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.05	Land & Land Rights - Easements	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
360.21	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.00	Mains Gravity	R2.5	80.00	0.00%	MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	50.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	S2.0	30.00	0.00%	MACRS	25.00
371.20	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.00	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

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Income Approach

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(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	23,519,433	13,876,085	10,538,130	9,643,348	(894,782)	(258,502)	5,045,467	-	4,856,383	0.964	4,681,553	4,681,553
2	1.5	23,519,433	13,867,066	10,706,768	9,652,367	(1,054,401)	(304,617)	5,083,310	-	4,873,674	0.894	4,357,065	9,038,618
3	2.5	30,575,263	13,863,599	10,878,341	16,711,664	5,833,323	1,685,247	5,121,433	381,016	9,523,968	0.830	7,904,893	16,943,511
4	3.5	30,575,263	13,865,677	11,052,884	16,709,586	5,656,702	1,634,221	5,159,843	-	9,915,522	0.771	7,644,867	24,588,378
5	4.5	30,575,263	13,873,301	11,230,430	16,701,962	5,471,532	1,580,726	5,198,542	-	9,922,694	0.716	7,104,649	31,693,027
6	5.5	38,219,079	13,796,046	11,411,016	24,423,033	13,012,017	3,759,172	5,237,533	412,765	15,013,563	0.664	9,969,006	41,662,033
7	6.5	38,219,079	13,729,765	11,324,695	24,489,314	13,164,619	3,803,259	4,276,880	-	16,409,175	0.617	10,124,461	51,786,494
8	7.5	38,219,079	13,674,212	11,479,142	24,544,867	13,065,725	3,774,688	4,308,955	-	16,461,224	0.573	9,432,281	61,218,775
9	8.5	45,862,895	13,629,150	11,636,194	32,233,745	20,597,551	5,950,633	4,341,273	412,767	21,529,072	0.531	11,431,937	72,650,712
10	9.5	45,862,895	13,594,359	11,795,877	32,268,536	20,472,659	5,914,551	4,373,832	-	21,980,153	0.493	10,836,215	83,486,927
11	10.5	45,862,895	13,569,627	11,958,226	32,293,268	20,335,042	5,874,794	4,406,638	-	22,011,836	0.458	10,081,421	93,568,348
12	11.5	50,449,185	13,554,757	12,123,267	36,894,428	24,771,161	7,156,388	4,439,686	247,659	25,050,695	0.425	10,646,545	104,214,893
13	12.5	50,449,185	13,549,561	12,291,035	36,899,624	24,608,589	7,109,421	4,472,984	-	25,317,219	0.395	10,000,302	114,215,195
14	13.5	50,449,185	13,553,864	12,461,560	36,895,321	24,433,761	7,058,914	4,506,531	-	25,329,876	0.366	9,270,735	123,485,930
15	14.5	53,476,136	13,567,502	12,634,873	39,908,634	27,273,761	7,879,389	4,540,329	163,455	27,325,461	0.340	9,290,657	132,776,587
16	15.5	53,476,136	13,804,762	9,956,507	39,671,374	29,714,867	8,584,625	4,574,383	-	26,512,366	0.316	8,377,908	141,154,495
17	16.5	53,476,136	14,046,766	10,094,566	39,429,370	29,334,774	8,474,816	4,608,690	-	26,345,864	0.293	7,719,338	148,873,833
18	17.5	56,684,704	14,293,611	10,234,860	42,391,093	32,156,233	9,289,936	4,643,255	173,263	28,284,639	0.272	7,693,422	156,567,255
19	18.5	56,684,704	14,545,393	10,377,325	42,139,311	31,761,986	9,176,098	4,678,080	-	28,285,193	0.253	7,156,154	163,723,409
20 and beyond	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	3.044	85,564,667	249,288,076
								93,730,810					

Age				19.5									
PW(Age) = 1/(1+Discount Rate)^(Age)				0.235				Net Plant		141,855,874			
PW to Perpetuity = 1/Capitalization Rate				12.953				ADIT		(10,929,899)			
$PW_{(20\text{and Beyond})}$ = PW to Perpetuity * $PW\ Factor_{(19.5)}$				3.044				Rate Base		130,925,975	0.235	30,767,604	194,491,013
								Annual Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 19.5 years		299,258,981	0.235	70,325,861	234,049,270
								PP	235,000,000				
								OCLD	97,106,105				
								PP/OCLD	2.420				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										121,658,770.88	0.235	28,589,811	192,313,220
								Average					217,535,395

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(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)
20	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	0.235	6,605,682	170,329,091
21	20.5	60,085,786	15,064,164	10,668,956	45,021,622	34,352,666	9,924,485	4,748,516	183,658	30,164,963	0.218	6,575,962	176,905,053
22	21.5	60,085,786	15,331,356	10,818,172	44,754,430	33,936,258	9,804,185	4,784,129	-	30,166,116	0.202	6,093,555	182,998,608
23	22.5	60,085,786	15,603,892	10,969,689	44,481,894	33,512,205	9,681,676	4,820,008	-	29,960,210	0.188	5,636,279	188,634,887
24	23.5	63,690,933	15,881,880	11,123,537	47,809,053	36,685,516	10,598,446	4,856,159	194,678	32,159,770	0.174	5,595,800	194,230,687
25	24.5	63,690,933	16,165,427	11,279,740	47,525,506	36,245,766	10,471,402	4,892,582	-	32,161,522	0.162	5,210,167	199,440,854
26	25.5	63,690,933	16,454,645	4,929,274	47,236,288	42,307,014	12,222,496	4,929,274	-	30,084,518	0.150	4,512,678	203,953,532
27	26.5	67,512,389	16,749,647	4,966,244	50,762,742	45,796,498	13,230,608	4,966,244	206,359	32,359,531	0.139	4,497,975	208,451,507
28	27.5	67,512,389	17,050,550	5,003,491	50,461,839	45,458,348	13,132,917	5,003,491	-	32,325,431	0.129	4,169,981	212,621,488
29	28.5	67,512,389	17,357,471	5,041,016	50,154,918	45,113,902	13,033,406	5,041,016	-	32,080,496	0.120	3,849,660	216,471,148
30	29.5	67,512,389	17,670,530	5,078,823	49,841,859	44,763,036	12,932,041	5,078,823	-	31,830,995	0.111	3,533,240	220,004,388
31	30.5	67,512,389	17,989,851	5,116,916	49,522,538	44,405,622	12,828,784	5,116,916	-	31,576,838	0.104	3,283,991	223,288,379
32	31.5	67,512,389	18,315,558	5,155,292	49,196,831	44,041,539	12,723,601	5,155,292	-	31,317,938	0.096	3,006,522	226,294,901
33	32.5	67,512,389	18,647,778	5,254,814	48,864,611	43,609,797	12,598,870	5,193,958	-	31,071,783	0.089	2,765,389	229,060,290
34	33.5	67,512,389	18,986,644	5,355,537	48,525,745	43,170,208	12,471,873	5,232,912	-	30,820,960	0.083	2,558,140	231,618,430
35	34.5	67,512,389	19,332,286	5,395,704	48,180,103	42,784,399	12,360,413	5,272,159	-	30,547,531	0.077	2,352,160	233,970,590
36	35.5	67,512,389	19,684,841	5,436,171	47,827,548	42,391,377	12,246,869	5,311,700	-	30,268,979	0.071	2,149,098	236,119,688
37	36.5	67,512,389	20,044,447	5,476,943	47,467,942	41,990,999	12,131,200	5,351,538	-	29,985,204	0.066	1,979,023	238,098,711
38	37.5	67,512,389	20,411,246	5,518,021	47,101,143	41,583,122	12,013,364	5,391,676	-	29,696,103	0.062	1,841,158	239,939,869
39	38.5	67,512,389	20,785,381	5,559,406	46,727,008	41,167,602	11,893,320	5,432,113	-	29,401,575	0.057	1,675,890	241,615,759
40	39.5	67,512,389	21,166,999	5,601,100	46,345,390	40,744,290	11,771,075	5,472,852	-	29,101,513	0.053	1,542,380	243,158,139
41	40.5	67,512,389	21,556,249	5,643,110	45,956,140	40,313,030	11,646,434	5,513,900	-	28,795,806	0.049	1,410,994	244,569,133
42	41.5	67,512,389	21,953,284	5,685,434	45,559,105	39,873,671	11,519,504	5,555,255	-	28,484,346	0.046	1,310,260	245,879,413
43	42.5	67,512,389	22,358,259	5,912,602	45,154,130	39,241,528	11,336,877	5,596,917	-	28,220,336	0.042	1,185,254	247,064,667
44	43.5	67,512,389	22,771,335	6,142,862	44,741,054	38,598,192	11,151,018	5,638,895	-	27,951,141	0.039	1,090,094	248,154,761
45	44.5	67,512,389	23,192,672	6,188,933	44,319,717	38,130,784	11,015,984	5,681,186	-	27,622,547	0.037	1,022,034	249,176,795
46	45.5	67,512,389	23,622,435	6,235,349	43,889,954	37,654,605	10,878,415	5,723,794	-	27,287,745	0.034	927,783	250,104,578
47	46.5	67,512,389	24,060,793	6,282,116	43,451,596	37,169,480	10,738,263	5,766,724	-	26,946,609	0.031	835,345	250,939,923
48	47.5	67,512,389	24,507,918	6,329,233	43,004,471	36,675,238	10,595,476	5,809,976	-	26,599,019	0.029	771,372	251,711,295
49	48.5	67,512,389	24,963,986	6,376,700	42,548,403	36,171,703	10,450,005	5,853,549	-	26,244,849	0.027	708,611	252,419,906
50	49.5	67,512,389	25,429,175	6,424,524	42,083,214	35,658,690	10,301,796	5,897,449	-	25,883,969	0.025	647,099	253,067,005
51	50.5	67,512,389	25,903,668	6,472,710	41,608,721	35,136,011	10,150,794	5,941,682	-	25,516,245	0.023	586,874	253,653,879
52	51.5	67,512,389	26,387,650	6,521,255	41,124,739	34,603,484	9,996,947	5,986,244	-	25,141,548	0.022	553,114	254,206,993
53	52.5	67,512,389	26,881,313	6,570,164	40,631,076	34,060,912	9,840,197	6,031,141	-	24,759,738	0.020	495,195	254,702,188
54	53.5	67,512,389	27,384,849	6,619,440	40,127,540	33,508,100	9,680,490	6,076,374	-	24,370,676	0.019	463,043	255,165,231
55	54.5	67,512,389	27,898,456	6,669,086	39,613,933	32,944,847	9,517,766	6,121,947	-	23,974,220	0.017	407,562	255,572,793
56	55.5	67,512,389	28,422,335	6,719,104	39,090,054	32,370,950	9,351,968	6,167,861	-	23,570,225	0.016	377,124	255,949,917
57	56.5	67,512,389	28,956,691	6,769,499	38,555,698	31,786,199	9,183,033	6,214,122	-	23,158,543	0.015	347,378	256,297,295
58	57.5	67,512,389	29,501,734	6,820,268	38,010,655	31,190,387	9,010,903	6,260,726	-	22,739,026	0.014	318,346	256,615,641
59	58.5	67,512,389	30,057,678	6,871,422	37,454,711	30,583,289	8,835,512	6,307,683	-	22,311,516	0.013	290,050	256,905,691
60	59.5	67,512,389	30,624,742	6,922,955	36,887,647	29,964,692	8,656,800	6,354,988	-	21,875,859	0.155	3,390,758	260,296,449
								225,264,937					

Age				59.5									
PW(Age) = 1/(1+Discount Rate)^(Age)				0.012									
PW to Perpetuity = 1/Capitalization Rate				12.953									
$PW_{(20and Beyond)}$ = PW to Perpetuity * $PW\ Factor_{(19.5)}$				0.155									
								Net Plant		48,107,408			
								ADIT		4,201,134			
								Rate Base		52,308,542	0.012	627,703	257,533,394
								Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 59.5 years		611,872,892	0.012	7,342,475	264,248,166
								PP	235,000,000				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										48,606,038.35	0.012	583,272	257,488,963

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Calculated Rates of Return on Rate Base and Equity
(Years 1 through 20)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Period	Age	Revenues	O&M Expenses	Book Depreciation	Ratemaking Interest Expense	Book Taxable Income (Current + Deferred)	State and Federal Taxes @ 28.89%	Net Operating Income	Net (Equity) Income	Net Plant	Working Capital	Accumulated Deferred Income Taxes (ADIT)	Rate Base	Return on Rate Base	Net Equity	Return on Equity
						(3)-(4)-(5)-(6)	(7) *28.89%	(7)-(8)+(6)	(9) - (6)				(11)+(12)+(13)	(9)/(14)		(10)/(16)
1	0.5	23,519,433	13,876,085	8,772,033	5,208,879	(4,337,564)	(1,253,122)	2,124,437	(3,084,442)	231,273,433	1,270,049	(510,226)	232,033,256	0.92%	359,210,273	-0.86%
2	1.5	23,519,433	13,867,066	8,914,780	5,037,314	(4,299,727)	(1,242,191)	1,979,778	(3,057,536)	227,441,964	1,270,049	(1,027,932)	227,684,081	0.87%	356,152,738	-0.86%
3	2.5	30,575,263	13,863,599	9,041,381	4,871,969	2,798,314	808,433	6,861,850	1,989,881	223,522,015	1,651,065	(1,558,630)	223,614,450	3.07%	358,142,618	0.56%
4	3.5	30,575,263	13,865,677	9,091,477	4,709,570	2,908,539	840,277	6,777,832	2,068,262	219,590,382	1,651,065	(2,125,280)	219,116,167	3.09%	360,210,881	0.57%
5	4.5	30,575,263	13,873,301	9,139,453	4,552,584	3,009,925	869,567	6,692,942	2,140,358	215,649,470	1,651,065	(2,729,363)	214,571,172	3.12%	362,351,239	0.59%
6	5.5	38,219,079	13,796,046	9,194,995	4,400,831	10,827,207	3,127,980	12,100,058	7,699,227	211,692,008	2,063,830	(3,369,571)	210,386,267	5.75%	370,050,465	2.08%
7	6.5	38,219,079	13,729,765	9,297,559	4,254,137	10,937,618	3,159,878	12,031,877	7,777,740	206,671,329	2,063,830	(3,955,211)	204,779,948	5.88%	377,828,205	2.06%
8	7.5	38,219,079	13,674,212	9,430,528	4,112,333	11,002,006	3,178,480	11,935,859	7,823,526	201,549,756	2,063,830	(4,547,056)	199,066,530	6.00%	385,651,731	2.03%
9	8.5	45,862,895	13,629,150	9,427,539	3,975,255	18,830,951	5,440,262	17,365,944	13,390,689	196,463,490	2,476,597	(5,185,137)	193,754,950	8.96%	399,042,420	3.36%
10	9.5	45,862,895	13,594,359	9,453,436	3,842,746	18,972,354	5,481,113	17,333,987	13,491,241	191,383,886	2,476,597	(5,861,868)	187,998,615	9.22%	412,533,661	3.27%
11	10.5	45,862,895	13,569,627	9,453,708	3,714,655	19,124,905	5,525,185	17,314,375	13,599,720	186,336,816	2,476,597	(6,585,423)	182,227,990	9.50%	426,133,381	3.19%
12	11.5	50,449,185	13,554,757	9,486,962	3,590,833	23,816,633	6,880,625	20,526,841	16,936,008	181,289,540	2,724,256	(7,347,051)	176,666,745	11.62%	443,069,389	3.82%
13	12.5	50,449,185	13,549,561	9,511,052	3,471,138	23,917,434	6,909,747	20,478,825	17,007,687	176,251,472	2,724,256	(8,150,188)	170,825,540	11.99%	460,077,076	3.70%
14	13.5	50,449,185	13,553,864	9,517,357	3,355,434	24,022,530	6,940,109	20,437,855	17,082,421	171,240,645	2,724,256	(9,000,768)	164,964,133	12.39%	477,159,496	3.58%
15	14.5	53,476,136	13,567,502	9,513,406	3,243,586	27,151,642	7,844,109	22,551,119	19,307,533	166,267,568	2,887,711	(9,902,559)	159,252,720	14.16%	496,467,029	3.89%
16	15.5	53,476,136	13,804,762	9,557,814	3,135,467	26,978,093	7,793,971	22,319,589	19,184,122	161,284,137	2,887,711	(10,017,741)	154,154,107	14.48%	515,651,151	3.72%
17	16.5	53,476,136	14,046,766	9,506,372	3,030,951	26,892,047	7,769,113	22,153,885	19,122,934	156,386,455	2,887,711	(10,187,680)	149,086,486	14.86%	534,774,085	3.58%
18	17.5	56,684,704	14,293,611	9,506,280	2,929,919	29,954,894	8,653,969	24,230,844	21,300,925	151,523,430	3,060,974	(10,398,167)	144,186,237	16.81%	556,075,010	3.83%
19	18.5	56,684,704	14,545,393	9,541,430	2,832,255	29,765,626	8,599,289	23,998,592	21,166,337	146,660,080	3,060,974	(10,639,657)	139,081,397	17.26%	577,241,347	3.67%
20	19.5	56,684,704	14,802,210	9,517,372	2,737,847	29,627,275	8,559,320	23,805,802	21,067,955	141,855,874	3,060,974	(10,929,899)	133,986,949	17.77%	598,309,302	3.52%
										33,336,130.37						

Deferred Tax

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Calculated Rates of Return on Rate Base and Equity
(Years 1 through 20)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Period	Age	Revenues	O&M Expenses	Book Depreciation	Ratemaking Interest Expense	Book Taxable Income (Current + Deferred)	State and Federal Taxes @ 28.89%	Net Operating Income	Net (Equity) Income	Net Plant	Working Capital	Accumulated Deferred Income Taxes (ADIT)	Rate Base	Return on Rate Base	Net Equity	Return on Equity
						(3)-(4)-(5)-(6)	(7) *28.89%	(7)-(8)=(6)	(9) - (6)				(11)+(12)+(13)	(9)/(14)		(10)/(16)
20	19.5	56,684,704	14,802,210	9,517,372	2,737,847	29,627,275	8,559,320	23,805,802	21,067,955	141,855,874	3,060,974	(10,929,899)	133,986,949	17.77%	598,309,302	3.52%
20	20.5	60,085,786	15,064,164	9,465,838	2,646,585	32,909,199	9,507,467	26,048,317	23,401,732	137,138,552	3,244,632	(11,277,479)	129,105,705	20.18%	621,711,034	3.76%
20	21.5	60,085,786	15,331,356	9,443,388	2,558,366	32,752,676	9,462,248	25,848,794	23,290,428	132,479,293	3,244,632	(11,674,654)	124,049,271	20.84%	645,001,462	3.61%
20	22.5	60,085,786	15,603,892	9,448,747	2,473,087	32,560,060	9,406,601	25,626,546	23,153,459	127,850,554	3,244,632	(12,114,054)	118,981,132	21.54%	668,154,921	3.47%
20	23.5	63,690,933	15,881,880	9,446,072	2,390,651	35,972,330	10,392,406	27,970,575	25,579,924	123,260,641	3,439,310	(12,598,673)	114,101,278	24.51%	693,734,845	3.69%
20	24.5	63,690,933	16,165,427	9,365,481	2,310,962	35,849,063	10,356,794	27,803,231	25,492,269	118,787,742	3,439,310	(13,151,702)	109,075,350	25.49%	719,227,114	3.54%
20	25.5	63,690,933	16,454,645	9,361,108	2,233,930	35,641,250	10,296,757	27,578,423	25,344,493	114,355,908	3,439,310	(11,871,345)	105,923,873	26.04%	744,571,607	3.40%
20	26.5	67,512,389	16,749,647	9,301,381	2,159,466	39,301,895	11,354,317	30,107,044	27,947,578	110,020,770	3,645,669	(10,618,923)	103,047,516	29.22%	772,519,184	3.62%
20	27.5	67,512,389	17,050,550	9,267,756	2,087,484	39,106,597	11,297,896	29,896,185	27,808,701	105,756,503	3,645,669	(9,386,976)	100,015,196	29.89%	800,327,885	3.47%
20	28.5	67,512,389	17,357,471	9,200,247	2,017,901	38,936,770	11,248,833	29,705,838	27,687,937	101,597,273	3,645,669	(8,185,374)	97,057,568	30.61%	828,015,823	3.34%
20	29.5	67,512,389	17,670,530	9,138,207	1,950,637	38,753,015	11,195,746	29,507,906	27,557,269	97,537,889	3,645,669	(7,012,618)	94,170,940	31.33%	855,573,092	3.22%
20	30.5	67,512,389	17,989,851	9,105,815	1,885,616	38,531,107	11,131,637	29,285,086	27,399,470	93,548,990	3,645,669	(5,860,225)	91,334,434	32.06%	882,972,562	3.10%
20	31.5	67,512,389	18,315,558	8,972,317	1,822,762	38,401,752	11,094,266	29,130,248	27,307,486	89,731,965	3,645,669	(4,757,486)	88,620,148	32.87%	910,280,048	3.00%
20	32.5	67,512,389	18,647,778	8,865,218	1,762,004	38,237,389	11,046,782	28,952,611	27,190,607	86,060,705	3,645,669	(3,714,441)	85,991,933	33.67%	937,470,655	2.90%
20	33.5	67,512,389	18,986,644	8,860,639	1,703,270	37,961,836	10,967,174	28,697,932	26,994,662	82,432,978	3,645,669	(2,701,817)	83,376,830	34.42%	964,465,317	2.90%
20	34.5	67,512,389	19,332,286	8,561,037	1,646,495	37,972,571	10,970,276	28,648,790	27,002,295	79,144,100	3,645,669	(1,787,352)	81,002,417	35.37%	991,467,612	2.72%
20	35.5	67,512,389	19,684,841	8,545,300	1,591,611	37,690,637	10,888,825	28,393,423	26,801,812	75,910,500	3,645,669	(889,125)	78,667,044	36.09%	1,018,269,424	2.63%
20	36.5	67,512,389	20,044,447	8,374,158	1,538,558	37,555,226	10,849,705	28,244,079	26,705,521	72,887,880	3,645,669	(52,120)	76,481,429	36.93%	1,044,974,945	2.56%
20	37.5	67,512,389	20,411,246	8,276,590	1,487,272	37,337,281	10,786,741	28,037,812	26,550,540	70,002,967	3,645,669	744,830	74,393,466	37.69%	1,071,525,486	2.48%
20	38.5	67,512,389	20,785,381	8,227,974	1,437,697	37,061,337	10,707,020	27,792,014	26,354,317	67,207,105	3,645,669	1,515,780	72,368,554	38.40%	1,097,879,802	2.40%
20	39.5	67,512,389	21,166,999	8,023,449	1,389,773	36,932,168	10,669,703	27,652,238	26,262,465	64,656,508	3,645,669	2,215,597	70,517,774	39.21%	1,124,142,267	2.34%
20	40.5	67,512,389	21,556,249	7,773,703	1,343,448	36,838,989	10,642,784	27,539,653	26,196,205	62,396,705	3,645,669	2,831,125	68,873,499	39.99%	1,150,338,472	2.28%
20	41.5	67,512,389	21,953,284	7,577,869	1,298,666	36,682,570	10,597,594	27,383,642	26,084,976	60,374,091	3,645,669	3,377,850	67,397,610	40.63%	1,176,423,448	2.22%
20	42.5	67,512,389	22,358,259	7,403,327	1,255,377	36,495,426	10,543,529	27,207,274	25,951,897	58,567,681	3,645,669	3,808,520	66,021,870	41.21%	1,202,375,345	2.16%
20	43.5	67,512,389	22,771,335	7,283,950	1,213,531	36,243,573	10,470,768	26,986,336	25,772,805	56,922,626	3,645,669	4,138,181	64,706,476	41.71%	1,228,148,150	2.10%
20	44.5	67,512,389	23,192,672	7,131,843	1,173,080	36,014,794	10,404,674	26,783,200	25,610,120	55,471,969	3,645,669	4,410,588	63,528,226	42.16%	1,253,758,270	2.04%
20	45.5	67,512,389	23,622,435	6,969,228	1,133,978	35,786,748	10,338,791	26,581,935	25,447,957	54,226,535	3,645,669	4,622,606	62,494,810	42.59%	1,279,206,227	1.99%
20	46.5	67,512,389	24,060,793	6,881,911	1,096,178	35,473,507	10,248,296	26,321,389	25,225,211	53,111,347	3,645,669	4,795,887	61,552,903	42.76%	1,304,431,437	1.93%
20	47.5	67,512,389	24,507,918	6,832,329	1,059,639	35,112,503	10,144,002	26,028,140	24,968,501	52,088,994	3,645,669	4,941,232	60,675,895	42.90%	1,329,399,938	1.88%
20	48.5	67,512,389	24,963,986	6,742,299	1,024,318	34,781,786	10,048,458	25,757,646	24,733,328	51,200,244	3,645,669	5,046,853	59,892,766	43.01%	1,354,133,266	1.83%
20	49.5	67,512,389	25,429,175	6,722,249	990,174	34,370,791	9,929,722	25,431,243	24,441,069	50,375,445	3,645,669	5,132,865	59,153,979	42.99%	1,378,574,336	1.77%
20	50.5	67,512,389	25,903,668	6,651,249	957,168	34,000,304	9,822,688	25,134,784	24,177,616	49,665,877	3,645,669	5,184,445	58,495,991	42.97%	1,402,751,951	1.72%
20	51.5	67,512,389	26,387,650	6,643,245	925,262	33,556,232	9,694,395	24,787,099	23,861,837	49,008,877	3,645,669	5,210,688	57,874,234	42.83%	1,426,613,789	1.67%
20	52.5	67,512,389	26,881,313	6,493,737	894,420	33,242,919	9,603,879	24,533,460	23,639,040	48,546,281	3,645,669	5,197,608	57,389,558	42.75%	1,450,252,829	1.63%
20	53.5	67,512,389	27,384,849	6,379,781	864,606	32,883,153	9,499,943	24,247,816	23,383,210	48,242,874	3,645,669	5,128,370	57,016,913	42.53%	1,473,636,039	1.59%
20	54.5	67,512,389	27,898,456	6,331,936	835,786	32,446,211	9,373,710	23,908,287	23,072,501	48,032,886	3,645,669	5,030,968	56,709,523	42.16%	1,496,708,541	1.54%
20	55.5	67,512,389	28,422,335	6,279,895	807,927	32,002,232	9,245,445	23,564,714	22,756,787	47,920,851	3,645,669	4,904,080	56,470,600	41.73%	1,519,465,327	1.50%
20	56.5	67,512,389	28,956,691	6,260,551	780,996	31,514,151	9,104,438	23,190,709	22,409,713	47,874,422	3,645,669	4,757,045	56,277,136	41.21%	1,541,875,040	1.45%
20	57.5	67,512,389	29,501,734	6,227,179	754,963	31,028,513	8,964,138	22,819,338	22,064,375	47,907,970	3,645,669	4,585,701	56,139,340	40.65%	1,563,939,416	1.41%
20	58.5	67,512,389	30,057,678	6,239,257	729,797	30,485,657	8,807,306	22,408,148	21,678,351	47,976,396	3,645,669	4,403,069	56,025,134	40.00%	1,585,617,767	1.37%
20	59.5	67,512,389	30,624,742	6,223,975	705,471	29,958,201	8,654,924	22,008,748	21,303,277	48,107,408	3,645,669	4,201,134	55,954,211	39.33%	1,606,921,043	1.33%

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Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	100.0%						7.72%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.79%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Capitlization 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	Market Capital Cost (2)*(3)
Debt	29%	Market	3.52%	Market	Not Applicable	Not Applicable	1.02%
Equity	71%	Market	9.85%	Market	Not Applicable	Not Applicable	6.99%
Total Capital r	100.0%						8.01%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							6.08%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	100.0%						7.16%
Growth (g)						Not Applicable	0.00%
Rate without Growth: [(1+r)/(1+g)]-1							7.16%

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Market Approach

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
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As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Central Tendancy and Reliability Analysis

Market Sales Analysis - PP/OCLD

	Simple	Weighted	
Mean	1.7594	1.8494	
Standard Deviation	0.5882	0.4204	
Median	1.49	1.4355	
Mode	1.4418	1.4418	
Conclusion		1.8494	AUS Input
The York City Sewer Authority Wastewater System OCLD		115,727,779	Cost Approach OCLD
Market Value Indication		**214,026,955**	

Market Sales Analysis - PP/CORLD

	Simple	Weighted	
Mean	0.8087	0.9337	
Standard Deviation	0.1746	0.1695	
Median	0.8229	0.7558	
Mode	0.6918	0.6918	
Conclusion		0.9337	AUS Input
The York City Sewer Authority Wastewater System CORLD		236,987,901	Cost Approach - CORLD
Market Value Indication		**221,275,603**	

Market Sales Analysis - PP/Customer

	Simple	Weighted	
Water Treatment & Distribution			
Mean	6,123	10,962	
Standard Deviation		4,613	
Median	5,021	4,963	
Wastewater Collection & Treatment		16,785	
Mean	9,579		
Standard Deviation			AUS Input
Median	8,754		
Wastewater Collection			
Mean	6,507		
Standard Deviation			
Median	6,636		
Wastewater Treatment Only			
Mean	3,072		
Standard Deviation			
Median	2,118		
The York City Sewer Authority Wastewater System Customers		13,733	AUS Input
Wastewater Collection & Treatment PP/Customer		8,754	AUS Input
Collection and Treatement Customers Market Value Indic		**120,218,682**	
Treatement Only Market Value Indication			
Treatment Only PP/customer		2,118	AUS Input
York's Treatment Only Customers		34,490	AUS Input
Market Value Indication Treatment Only		**73,049,820**	
Total Market Value Indication		**193,268,502**	

Financial Basis[1]

Financial Markets	Market Value per Share to Book Value per Share	
Market to Book (equity)	3.40	
Market to Book (equity and debt)	2.11	
Use (equity and debt)	2.11	AUS Input
The York City Sewer Authority Wastewater System OCLD	97,106,105	Cost Approach - OCLD
Market Value Indication	**204,893,882**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-5)

	Simple	Weighted	
Mean	17.48	15.32	
Standard Deviation	5.71	5.10	
Median	17.41	18.13	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		18.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		13,874,600	Income Approach
Market Value Indication		**249,742,796**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-13)

	Simple	Weighted	
Mean	11.62	11.45	
Standard Deviation	2.67	2.14	
Median	11.65	12.07	
Mode	Not Applicable	Not Applicable	
Forecast			
Conclusion		12.00	AUS Input
The York City Sewer Authority Wastewater System Cash Flows		18,001,021	Income Approach
Market Value Indication		**216,012,253**	

Summary of Market Analyses

Indicators	
OCLD	214,026,955
CORLD	221,275,603
Customers	193,268,502
Cash Flows	
EBITDA Periods 1-5	249,742,796
EBITDA Periods 1-13	216,012,253
Value Line	204,893,882
Mean	216,536,665
Median	215,019,604
Conclusion	**221,275,603**

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

RowID	Approximate Date	Buyer	Seller	County	Type of Facility	Initial Purchase Price	Final Purchase Price[1]	Number of Total Customers	Relationship to the passage of Section 1329
1	9/1/2016	PA American Water	City of McKeesport	Allegheny	Wastewater Collection and Treatment	156,000,000	159,000,000	21,953	Post
2	8/1/2016	Aqua PA	New Garden Twp. SA	Chester	Wastewater Collection and Paid for and Owned Treatment	29,500,000	29,500,000	2,106	Post
3	11/16/2016	Aqua PA	Limerick Township	Montgomery	Wastewater Collection and Treatment System	75,100,000	64,373,378	5,434	Post
4	12/10/2017	Aqua PA	East Bradford Township	Chester	Wastewater Collection and paid for treatment	5,000,000	5,000,000	1,248	Post
5	4/20/2018	SUEZ	Mahoning	Carbon	Water Distribution System	4,734,800	4,734,800	1,188	Post
6	4/20/2018	SUEZ	Mahoning	Carbon	Wastewater Collection	4,765,200	4,765,200	1,451	Post
7	6/1/2018	Aqua PA	Cheltenham	Montgomery	Wastewater Collection	50,250,000	50,250,000	10,500	Post
8	11/14/2018	PA American Water	Steelton	Dauphin	Water Distribution and Treatment	22,500,000	21,750,000	2,325	Post
9	1/1/2017	PA American Water	Sadsbury	Chester	Wastewater Collection	9,250,000	8,600,000	998	Post
10	5/28/2018	PA American Water	Exeter	Berks	Wastewater Collection and Treatment	96,000,000	93,500,000	9,000	Post
11	10/29/2018	Aqua PA	East Norriton	Montgomery	Wastewater Collection	21,000,000	21,000,000	4,950	Post
12	9/30/2018	PA American	Kane	McKean	Wastewater Collection and Treatment	17,560,000	17,560,000	2,006	Post
13	12/10/2019	PA American	Royersford	Montgomery	Wastewater Collection and Treatment	13,000,000	13,000,000	1,596	Post
14	12/17/2019	PA American	Valley	Chester	Water Treatment and Distribution System	7,325,000	7,325,000	1,459	Post
15	12/17/2019	PA American	Valley	Chester	Wastewater Collection System	13,950,000	13,950,000	1,644	Post
16	12/31/2019	Aqua PA	Delaware County Regional Wa	Delaware	Wastewater Collection and Treatment	276,500,000	276,500,000	16,473	Post
17	4/28/2020	PA American Water	Upper Pottsgrove	Montgomery	Wastewater Collection	13,750,000	13,750,000	1,428	Post
18	9/17/2020	Aqua PA	Lower Makefield	Bucks	Wastewater Collection and Purchased Treatment Capacity	53,000,000	53,000,000	11,151	Post

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach

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The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

	Column Reference in OCLD & RCNLD	Amount in $s		
Depreciated Replacement Cost (RCNLD)				
Original Cost (OC)	(9)	155,875,776		
Replacement Cost New (RCN)	(16)	474,152,569		
Replacement Cost New less Depreciation (RCNLD)	(31)	218,366,227	235,000,000.00	Purchase Price
Intangible Assets - Treatment Contracts		18,621,674		
				Economic
Fair Market Vaue (FMV)	(41)	236,987,901	0	Obsolescence
			1.00000000	Condition
Depreciated Original Cost (OCLD)				
Original Cost (OC)	(46)	155,875,776		
Original Cost less Depreciation (OCLD)	(57)	97,106,105		
Intangible Assets - Treatment Contracts		18,621,674		
Depreciated Original Cost (OCLD)		115,727,779		
Cost Approach Conclusion		236,987,901		

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Income Approach to Trearment Agreements Valuation

Municipality	2019 YTD Projected	2020 Proposed Budget	Expenses	Operating Income	Value Capitalized @ 5.79%
					5.79%
Manchester Township					
Treatment Charge	934,716	975,132			
Sewer charge	1,348	-			
Subtotal Manchester Twp	936,064	975,132	778,813	196,319	3,390,656
North York Borough					
Treatment Charge	162,028	131,363			
Sewer charge	1,698	-			
Subtotal North York Borough	163,726	131,363	104,916	26,447	456,770
Spring Garden Township					
Treatment Charge	1,254,860	1,073,344			
Sewer charge	12,122	-			
Subtotal Spring Garden Twp	1,266,982	1,073,344	857,252	216,092	3,732,159
Springettsbury Township					
Treatment Charge	230,000	230,000			
Sewer charge	66,968	43,842			
Subtotal Springettbury Twp	296,968	273,842	218,711	55,131	952,176
West Manchester Township					
Treatment Charge	1,165,146	976,106			
Sewer charge	12,909	-			
Subtotal West Manchester Twp	1,178,055	976,106	779,591	196,515	3,394,041
West York Borough					
Treatment Charge	939,536	889,714			
Sewer charge	6,073	-			
Subtotal West York Borough	945,609	889,714	710,592	179,122	3,093,644
York Township					
Treatment Charge	1,220,088	1,035,977			
Sewer charge	11,480	-			
Subtotal York Township	1,231,568	1,035,977	827,408	208,569	3,602,228
York City					
Treatment Charge	3,298,215	2,941,956			
Sewer charge					
Subtotal York City	3,298,215	2,941,956	2,349,665		
Total Revenues					
Treatment Charge	9,204,589	8,253,592	6,626,949		
Sewer charge	112,598	43,842			
Total Revenues	9,317,187	8,297,434	6,626,949		18,621,674

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Municipality	Residential	Commercil / Industrial	Total	Market Value Per Treatment only customer	Market Value of Treatment Contract
Manchester Township	3,834	129	3,963	2,118.00	8,393,634
North York	718	64	782	2,118.00	1,656,276
Spring Garden Township	3,463	235	3,698	2,118.00	7,832,364
West Manchester Township	2,180	318	2,498	2,118.00	5,290,764
West York Borough	1,510	160	1,670	2,118.00	3,537,060
York Township	3,012	205	3,217	2,118.00	6,813,606
Total	14,717	1,111	15,828		33,523,704

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach
Replacement Cost New

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
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As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(9)	(10)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Original Cost	Costing Parameter	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
			OC $s			RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input			AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Original Cost	Cost Index Table	Translator	RCN	COR / RCN Factor	COR
353.00	353.00	Land & Land Rights - Land	40,501.00	USBLS3	4.42	179,118	19.69	3,527,270
353.05	353.05	Land & Land Rights - Easements	94,374.54	USBLS3	18.29	1,726,290	1.04	1,794,835
354.30	354.30	Stuctures & Improvements - Pumping	141,754.43	HWW-18	4.21	596,786	1.00	596,786
354.40	354.40	Stuctures & Improvements - Treatment	85,546,239.79	HWW-115	2.73	233,812,447	1.00	233,812,447
355.30	355.30	Generating Equipment - Pumping	15,032.64	USBLS4	2.71	40,784	1.00	40,784
360.21	360.21	Collection Sewers - Force - Mains	42,592.47	HWW-144	3.90	166,068	1.00	166,068
361.00	361.00	Mains Gravity	26,712,768.07	HWW-144	3.33	88,834,842	1.00	88,834,842
361.70	361.70	Collection Sewers - Gravity - Manholes	5,351,533.58	HWW-145	6.08	32,534,869	1.00	32,534,869
363.00	363.00	Service Laterals	2,039,891.94	HWW-139	21.62	44,097,551	1.00	44,097,551
364.00	364.00	Flow Measuring Devices	90,155.20	HWW-140	1.58	142,103	1.00	142,103
371.20	371.20	Pumping Equipment	36,252.00	HWW-19	9.88	358,069	1.00	358,069
380.00	380.00	Treatment and Disposal Equipment	34,672,151.67	HWW-117	1.93	66,780,665	1.00	66,780,665
390.00	390.00	Office Furniture and Equipment	60,303.60	AUST-115	1.10	66,154	1.00	66,154
391.00	391.00	Transportation Equipment	436,060.94	AUST-14	1.28	556,990	1.00	556,990
394.00	394.00	Laboratory Equipment	596,164.28	AUST-17	1.41	843,136	1.00	843,136
		Grand Total	155,875,776.15	-	3.02	470,735,872	1.01	474,152,569

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Pennsylvania American Water Company
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Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detailed by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Code(10) & (5)	Cost Indices Lookup Code(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
Land															
	353.00	353.00 City of York-York Water Co-6/30/1939	1939	1939		24.98	116,105.00	2,500.00	USBLS3	7	192	27.429	68,573	1.000	2,900,303
	353.00	353.00 York City Sewer Auth-Merchants Terminal Corp.-10/9/1984	1984	1984		2.46	116,105.00	-	USBLS3	63	192	3.048	-	1.000	285,618
	353.00	353.00 York City Sewer Auth-Merchants Terminal Corp.-8/23/1985	1985	1985		2.58	116,105.00	1.00	USBLS3	65	192	2.954	3	1.000	299,551
	353.00	353.00 York City Sewer Auth-Theodore R. Jones-4/3/1986	1986	1986		0.36	116,105.00	38,000.00	USBLS3	66	192	2.909	110,542	1.000	41,798
	353.00	353.00 York City Sewer Auth-Theodore R. Jones-8/2/1994	1994	1994		-	116,105.00	-	USBLS3	95	192	2.021	-	1.000	-
Subtotal 353.0								**40,881.00**					**178,118**		**3,527,270**
Easements		GRANTEE-GRANTOR-REC. DATE													
	353.05	353.05 City of York-Guardian Trust Co.-4380	1912	1912				27,000.00	USBLS3	6	192	32.000	864,000	1.000	864,000
	353.05	353.05 City of York-P A & S Small Land Co.-5423	1914	1914		1.00	1,036.00	1.00	USBLS3	6	192	32.000	32	1.000	1,036
	353.05	353.05 City of York-Jane Grisly-5658	1915	1915				1,000.00	USBLS3	6	192	32.000	32,000	1.000	32,000
	353.05	353.05 City of York-Joseph R. Jones-6352	1917	1917		1.00	1,036.00	1.00	USBLS3	8	192	24.000	24	1.000	1,036
	353.05	353.05 City of York-Stimeyer & Small Co.-8795	1918	1918		1.00	1,036.00	1.00	USBLS3	9	192	21.333	21	1.000	1,036
	353.05	353.05 City of York-West End Sewer Co.-7234	1919	1918				6,000.00	USBLS3	10	192	19.200	115,200	1.000	115,200
	353.05	353.05 City of York-Jacob Bare Est.-9701	1926	1925				1,000.00	USBLS3	11	192	17.455	17,455	1.000	17,455
	353.05	353.05 City of York-William M. Boger-9763	1926	1926		1.00	1,036.00	1.00	USBLS3	11	192	17.455	17	1.000	1,036
	353.05	353.05 City of York-Ralph K. Trimmer-9769	1926	1926		1.00	1,036.00	1.00	USBLS3	11	192	17.455	17	1.000	1,036
	353.05	353.05 City of York-Gnar Hersh-11514	1931	1931		1.00	1,036.00	1.00	USBLS3	9	192	21.333	21	1.000	1,036
	353.05	353.05 City of York-York County Poor District-11715	1932	1932		1.00	1,036.00	1.00	USBLS3	8	192	24.000	24	1.000	1,036
	353.05	353.05 City of York-Annie M. Menough-11815	1932	1932		1.00	1,036.00	1.00	USBLS3	8	192	24.000	24	1.000	1,036
	353.05	353.05 City of York-Frederick C. Boesch Ex-11815	1932	1932				100.00	USBLS3	8	192	24.000	2,400	1.000	2,400
	353.05	353.05 City of York-Community Swimming Assn Inc-11819	1932	1932		1.00	1,036.00	1.00	USBLS3	8	192	24.000	24	1.000	1,036
	353.05	City of York-Norard Hosiery 353.05 Mills Inc.-12275	1933	1933		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Agnes Kehm-12409	1933	1933		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Sallie S. Bond-34324	1993	1993		1.00	1,036.00	1.00	USBLS3	92	192	2.087	2	1.000	1,036
	353.05	353.05 City of York-York Hospital-13281	1936	1936				22,291.54	USBLS3	7	192	27.429	610,612	1.000	610,612
	353.05	353.05 City of York-David M. Myers Est-13757	1937	1937		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-York County Institution Dist-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-J. Victor Jones-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-York Tack & Nail Works-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	City of York-New York Wire 353.05 Cloth Co-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Home Furniture Co-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-David P. Klinedinst Trust-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-American Chain & Cable Co. Inc.-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-George H. Wolf-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Maryland & Penna. Railroad Co.-14041	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-York County Institution Dist-14055	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Ella L. Kleffman-14082	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-George D. Deardorff-14082	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Sarah E. Miller-14082	1938	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Howard E. Holland-14335	1939	1938		1.00	1,036.00	1.00	USBLS3	7	192	27.429	27	1.000	1,036
	353.05	353.05 City of York-Ray S. Noonan-15231	1941	1941		1.00	1,036.00	1.00	USBLS3	8	192	24.000	24	1.000	1,036
	353.05	353.05 City of York-Fannie M. Free-16625	1945	1945		1.00	1,036.00	1.00	USBLS3	11	192	17.455	17	1.000	1,036
	353.05	353.05 City of York-C. Kaufman Miller-17279	1947	1947		1.00	1,036.00	1.00	USBLS3	13	192	14.769	15	1.000	1,036
	353.05	353.05 City of York-David Y. Herbst-18571	1950	1950		1.00	1,036.00	1.00	USBLS3	14	192	13.714	14	1.000	1,036

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	input	input	input	input				input	input	input	input	Calculation	Calculation	input	Calculation
Eng Assmnt	AUS input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS input				Eng Assmnt	AUS input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
353.05	353.05	City of York-Penn Dairies Inc.-18608	1950	1950		1.00	1,036.00	1.00	USBLS3	14	192	13.714	14	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-19099	1952	1952		1.00	1,036.00	1.00	USBLS3	16	192	12.000	12	1.000	1,036
353.05	353.05	York City Sewer Auth-Commonwealth of PA-25240	1969	1960		1.00	1,036.00	1.00	USBLS3	24	192	8.000	8	1.000	1,036
353.05	353.05	York City Sewer Auth-GTE Sylvania Inc.-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-Robert Eichelberger-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-York Stone and Supply Co.-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-York Drilling Co. Inc.-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-Williams Tool & Machine-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-Luther D. March-26123	1971	1971		1.00	1,036.00	1.00	USBLS3	26	192	7.385	7	1.000	1,036
353.05	353.05	York City Sewer Auth-Sun Oil Company-26303	1972	1972		1.00	1,036.00	1.00	USBLS3	27	192	7.111	7	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	1987				1,700.00	USBLS3	69	192	2.783	4,731	1.000	4,731
353.05	353.05	York City Sewer Auth-Champion Intl. Corp.-31897	1987	1987				2,300.00	USBLS3	69	192	2.783	6,401	1.000	6,401
353.05	353.05	York City Sewer Auth-Larry Liebgott-31897	1987	1987				2,000.00	USBLS3	69	192	2.783	5,566	1.000	5,566
353.05	353.05	York City Sewer Auth-York City School District-31897	1987	1987				5,100.00	USBLS3	69	192	2.783	14,193	1.000	14,193
353.05	353.05	York City Sewer Auth-York College of PA-31897	1987	1987				5,670.00	USBLS3	69	192	2.783	15,780	1.000	15,780
353.05	353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	1987				500.00	USBLS3	69	192	2.783	1,392	1.000	1,392
353.05	353.05	York City Sewer Auth-Robert D. Hechinger-31897	1987	1987				3,000.00	USBLS3	69	192	2.783	8,349	1.000	8,349
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-L. Levelan & Sons-31897	1987	1987				1,600.00	USBLS3	69	192	2.783	4,453	1.000	4,453
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	1987				1,200.00	USBLS3	69	192	2.783	3,340	1.000	3,340
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-31897	1987	1987		1.00	1,036.00	1.00	USBLS3	69	192	2.783	3	1.000	1,036
353.05	353.05	York City Sewer Auth-Maryland and PA Railroad-31905	1987	1987				750.00	USBLS3	69	192	2.783	2,087	1.000	2,087
353.05	353.05	York City Sewer Auth-Dennis L. Edleblute-32330	1988	1988				730.00	USBLS3	72	192	2.667	1,947	1.000	1,947
353.05	353.05	York City Sewer Auth-York City Redev. Auth.-32351	1988	1988		1.00	1,036.00	1.00	USBLS3	72	192	2.667	3	1.000	1,036
353.05	353.05	York City Sewer Auth-Evelyn Jane Silberman-32468	1988	1988		1.00	1,036.00	1.00	USBLS3	72	192	2.667	3	1.000	1,036
353.05	353.05	York City Sewer Auth-Maryland and PA Railroad-32496	1988	1988		1.00	1,036.00	-	USBLS3	72	192	2.667	-	1.000	1,036
353.05	353.05	York City Sewer Auth-Columbia Gas of PA Inc.-32533	1989	1989		1.00	1,036.00	1.00	USBLS3	76	192	2.526	3	1.000	1,036
353.05	353.05	York City Sewer Auth-City of York-34220	1993	1993		1.00	1,036.00	1.00	USBLS3	92	192	2.087	2	1.000	1,036
353.05	353.05	York City Sewer Auth-Dentsply Intl. Inc.-34303	1993	1993		1.00	1,036.00	1.00	USBLS3	92	192	2.087	2	1.000	1,036
353.05	353.05	York City Sewer Auth-York Building Prod. Co.-36755	2000	2000		1.00	1,036.00	1.00	USBLS3	114	192	1.684	2	1.000	1,036
353.05	353.05	York City Sewer Auth-Maryland and PA Railroad-36929	2001	2001				900.00	USBLS3	119	192	1.613	1,452	1.000	1,452
353.05	353.05	York City Sewer Auth-Maryland and PA Railroad-36929	2001	2001		1.00	1,036.00	-	USBLS3	119	192	1.613	–	1.000	1,036
353.05	353.05	York City Sewer Auth-York City School Dist.-36962	2001	2001		1.00	1,036.00	1.00	USBLS3	119	192	1.613	2	1.000	1,036
353.05	353.05	York City Sewer Auth-John E. Gearhart-36962	2001	2001		1.00	1,036.00	1.00	USBLS3	119	192	1.613	2	1.000	1,036
353.05	353.05	York City Sewer Auth-B.B., Jr., Inc.-37601	2002	2002		1.00	1,036.00	1.00	USBLS3	123	192	1.561	2	1.000	1,036
353.05	353.05	York City Sewer Auth-Creekside Investors, LP-37631	2003	2003		1.00	1,036.00	1.00	USBLS3	127	192	1.512	2	1.000	1,036
353.05	353.05	York City Sewer Auth-John E. Gearhart-39465	2008	2008		1.00	1,036.00	1.00	USBLS3	152	192	1.263	1	1.000	1,036
353.05	353.05	York City Sewer Auth***-Crestlcon Inc.-39465	2008	2008		1.00	1,036.00	1.00	USBLS3	152	192	1.263	1	1.000	1,036
353.05	353.05	York City Sewer Auth-Svedala Industries Inc.-39527	2008	2008		1.00	1,036.00	1.00	USBLS3	152	192	1.263	1	1.000	1,036

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Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Bechtel Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (14)	AUS Input	Col [14] * [15]
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
353.05	353.05	York City Sewer Auth-York College of PA-39615	2008	2008		1.00	1,036.00	1.00	USBLS3	152	192	1.263	1	1.000	1,036
353.05	353.05	York City Sewer Auth-Metso Minerals Indust. Inc.-40164	2009	2009		1.00	1,036.00	-	USBLS3	155	192	1.239	-	1.000	1,036
353.05	353.05	York City Sewer Auth-Metso Minerals Indust. Inc.-40195	2010	2010		1.00	1,036.00	-	USBLS3	157	192	1.223	-	1.000	1,036
353.05	353.05	York City Sewer Auth-John E. Gearhart-40500	2010	2010				11,500.00	USBLS3	157	192	1.223	14,065	1.000	14,065
353.05	353.05	York City Sewer Auth-Mott LLC-43304	2018	2018		1.00	1,036.00	1.00	USBLS3	183	192	1.049	1	1.000	1,036
Subtotal 353.05								94,374.54					1,720,290		1,794,835
		WWTP Headworks York 01													
354.40	354.40	Structure	1988	1988				1,674,850.47	HWW-115	251	762	3.036	5,084,846	1.000	5,084,846
354.40	354.40	Piping	1988	1988				57,710.40	HWW-115	251	762	3.036	175,209	1.000	175,209
354.40	354.40	Electrical Wiring	1988	1988				70,772.89	HWW-115	251	762	3.036	214,866	1.000	214,866
380.11	380.00	Electrical Equipment	1988	1988				30,662.80	HWW-117	303	1075	3.548	108,792	1.000	108,792
354.40	354.40	Summit	2016	2016				10,200.00	HWW-115	661.3	762	1.152	11,750	1.000	11,750
354.40	354.40	EIM Gate Operators	1999	1999				9,600.00	HWW-115	343	762	2.222	21,331	1.000	21,331
380.11	380.00	Pista-grit No. 1	2002	2002				6,733.20	HWW-117	452	1075	2.378	16,012	1.000	16,012
380.11	380.00	Grit Dump Facility	2001	2001				64,200.00	HWW-117	438.8	1075	2.450	157,290	1.000	157,290
380.11	380.00	Equipment	2004	2004				84,000.00	HWW-117	460	1075	2.240	188,160	1.000	188,160
354.40	354.40	Piping	2004	2004				5,100.00	HWW-115	420.8	762	1.811	9,236	1.000	9,236
354.40	354.40	Electrical Wiring	2004	2004				12,408.80	HWW-115	420.8	762	1.811	22,469	1.000	22,469
354.40	354.40	Structure	2008	2008				103,866.00	HWW-115	536.3	762	1.416	147,074	1.000	147,074
354.40	354.40	Structure (HVAC, Odor Control)	2009	2009				58,212.00	HWW-115	543.8	762	1.401	81,555	1.000	81,555
354.40	354.40	Piping	2009	2009				46,044.00	HWW-115	543.8	762	1.401	64,508	1.000	64,508
380.11	380.00	Process Equipment	2009	2009				200,066.40	HWW-117	672.5	1075	1.599	319,906	1.000	319,906
380.11	380.00	Process Equipment	2011	2011				787,560.00	HWW-117	717.5	1075	1.498	1,179,765	1.000	1,179,765
354.40	354.40	Piping	2011	2011				20,400.00	HWW-115	583.5	762	1.306	26,642	1.000	26,642
354.40	354.40	Structure	2011	2011				70,944.00	HWW-115	583.5	762	1.306	92,653	1.000	92,653
354.40	354.40	Electrical Wiring	2011	2011				175,719.60	HWW-115	583.5	762	1.306	229,490	1.000	229,490
354.40	354.40	Electrical Equipment	2011	2011				17,665.60	HWW-115	583.5	762	1.306	23,332	1.000	23,332
354.40	354.40	Structure	2012	2012				4,800.00	HWW-115	603.8	762	1.262	6,058	1.000	6,058
380.11	380.00	Process Equipment	2012	2012				5,610.00	HWW-117	753	1075	1.428	8,011	1.000	8,011
354.40	354.40	Structure (Overhead Doors)	2014	2014				12,183.60	HWW-115	630.8	762	1.208	14,718	1.000	14,718
354.40	354.40	Overhead Door	2017	2017				18,703.20	HWW-115	675.3	762	1.128	21,097	1.000	21,097
		Subtotal WWTP Headworks York 01						**3,548,210.96**					**8,224,770**		**8,224,770**
		WWTP T3 Raw Sewage Wet Well York 02													
354.40	354.40	Structures	1990	1990				118,964.40	HWW-115	271	762	2.812	334,528	1.000	334,528
380.00	380.00	Process Equipment	1990	1990				209,080.80	HWW-117	328	1075	3.277	685,158	1.000	685,158
354.40	354.40	Electrical Equipment	1990	1990				49,800.00	HWW-115	271	762	2.812	140,038	1.000	140,038
354.40	354.40	Channel Improvement	1995	1995				11,274.00	HWW-115	316	762	2.411	27,182	1.000	27,182
		Subtotal WWTP T3 Raw Sewage Wet Well York 02						**389,119.20**					**1,186,906**		**1,186,906**
		WWTP Primary Clarifiers, Channels, & Tunnels York 03													
354.40	354.40	Structure	1954	1954				95,716.80	HWW-115	41	762	18.585	1,778,897	1.000	1,778,897
354.40	354.40	Structure	1963	1963				237,682.80	HWW-115	55	762	13.855	3,293,095	1.000	3,293,095
354.40	354.40	Structure	1981	1981				4,800.00	HWW-115	191	762	3.990	19,152	1.000	19,152
354.40	354.40	Structure	1991	1991				2,949,234.00	HWW-115	274	762	2.781	8,201,820	1.000	8,201,820
354.40	354.40	Piping	2020	2020				104,400.00	HWW-115	735.3	762	1.036	108,158	1.000	108,158
354.40	354.40	Electrical Wiring	2020	2020				51,600.00	HWW-115	735.3	762	1.036	53,458	1.000	53,458
354.40	354.40	Electrical Equipment	2020	2020				80,749.20	HWW-115	735.3	762	1.036	83,656	1.000	83,656

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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15] Reproduction Cost New (RCN) to Replacement Cost New (COR)	[16]
Account	Account	Asset Description	Effective Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmt	AUS Input	City of York Wastewater Assets Detail by Burkart Horn Engineers	Eng Assmt	AUS Input				Eng Assmt	AUS Input	Cost Indices Lookup Date(16) & (5)	Cost Indices Lookup Date(16) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
380.90	380.00	Process Equipment	2020	2020				809,932.80	HWW-117	1039.3	1075	1.034	837,471	1.000	837,471
364.00	364.00	Flow Meters	2020	2020				30,000.00	HWW-140	455.5	485	1.042	31,260	1.000	31,260
380.90	380.00	Hand-wheel Gate	2020	2020				78,000.00	HWW-117	1039.3	1075	1.034	80,652	1.000	80,652
380.90	380.00	Stub Shafts & Chain	2020	2020				132,000.00	HWW-117	1039.3	1075	1.034	136,488	1.000	136,488
354.40	354.40	Wireway	2020	2020				36,000.00	HWW-115	735.3	762	1.036	37,296	1.000	37,296
380.90	380.00	Whipps Sluice Gate	2016	2016				14,250.00	HWW-117	867.5	1075	1.239	17,656	1.000	17,656
380.90	380.00	Whipps Sluice Gate	2016	2016				7,710.00	HWW-117	867.5	1075	1.239	9,553	1.000	9,553
354.40	354.40	Vertical Pump	2016	2016				7,812.00	HWW-115	661.3	762	1.152	8,999	1.000	8,999
		Subtotal WWTP Primary Clarifiers, Channels, & Tunnels York 03						**4,630,887.60**					**14,697,611**		**14,697,611**
		WWTP Primary Sludge Pump Station York 04													
354.40	354.40	Structure	1916	1916				14,713.20	HWW-115	11	762	69.273	1,019,228	1.000	1,019,228
354.40	354.40	Structure	1990	1990				388,834.80	HWW-115	271	762	2.812	1,093,403	1.000	1,093,403
380.00	380.00	Process Equipment	1990	1990				111,243.63	HWW-117	328	1075	3.277	364,545	1.000	364,545
354.40	354.40	Piping	1990	1990				31,296.60	HWW-115	271	762	2.812	88,006	1.000	88,006
354.40	354.40	Electrical Wiring	1990	1990				100,511.83	HWW-115	271	762	2.812	282,920	1.000	282,920
354.40	354.40	Electrical Equipment	1990	1990				124,117.56	HWW-115	271	762	2.812	349,019	1.000	349,019
354.40	354.40	UPS-PSPS	2002	2002				7,140.00	HWW-115	388.8	762	1.960	13,994	1.000	13,994
354.40	354.40	Wall Closure	1995	1995				6,185.60	HWW-115	316	762	2.411	14,938	1.000	14,938
354.40	354.40	Structure	1996	1996				12,548.40	HWW-115	321	762	2.374	29,790	1.000	29,790
380.00	380.00	Process Equipment	1996	1996				39,392.40	HWW-117	375	1075	2.867	112,938	1.000	112,938
354.40	354.40	Piping	1996	1996				8,260.00	HWW-115	321	762	2.374	19,657	1.000	19,657
354.40	354.40	Electrical Wiring	1996	1996				8,340.00	HWW-115	321	762	2.374	19,799	1.000	19,799
354.40	354.40	Ind. Hot Water Sys.	1997	1997				8,400.00	HWW-115	331	762	2.302	19,337	1.000	19,337
354.40	354.40	AC System	1997	1997				117,600.00	HWW-115	331	762	2.302	270,715	1.000	270,715
354.40	354.40	Vaughn	2020	2020				144,000.00	HWW-115	735.3	762	1.036	149,184	1.000	149,184
354.40	354.40	Structure	2009	2009				18,000.00	HWW-115	543.8	762	1.401	25,218	1.000	25,218
380.00	380.00	Process Equipment	2001	2001				206,843.20	HWW-117	436.8	1075	2.450	511,666	1.000	511,666
354.40	354.40	Electrical Wiring	2001	2001				49,496.40	HWW-115	378	762	2.016	99,785	1.000	99,785
354.40	354.40	Electrical Equipment	2001	2001				323,253.60	HWW-115	378	762	2.016	651,679	1.000	651,679
354.40	354.40	Structure	2008	2008				3,000.00	HWW-115	538.3	762	1.416	4,248	1.000	4,248
380.00	380.00	Process Equipment	2008	2008				66,600.00	HWW-117	629	1075	1.709	113,819	1.000	113,819
354.40	354.40	Piping	2008	2008				18,000.00	HWW-115	538.3	762	1.416	25,488	1.000	25,488
354.40	354.40	Electrical Wiring	2008	2008				4,500.00	HWW-115	538.3	762	1.416	6,372	1.000	6,372
354.40	354.40	Electrical Equipment	2008	2008				1,200.00	HWW-115	538.3	762	1.416	1,699	1.000	1,699
380.00	380.00	Process Equipment	2010	2010				104,616.00	HWW-117	694.5	1075	1.548	161,936	1.000	161,936
354.40	354.40	Piping	2010	2010				31,600.00	HWW-115	559.8	762	1.361	43,260	1.000	43,260
354.40	354.40	Structure	2010	2010				7,200.00	HWW-115	559.8	762	1.361	9,799	1.000	9,799
354.40	354.40	Electrical Wiring	2010	2010				83,139.60	HWW-115	559.8	762	1.361	113,153	1.000	113,153
354.40	354.40	Electrical Equipment	2010	2010				115,658.40	HWW-115	559.8	762	1.361	157,411	1.000	157,411
380.00	380.00	Process Equipment	2012	2012				16,800.00	HWW-117	753	1075	1.428	23,990	1.000	23,990
354.40	354.40	Electrical Wiring	2012	2012				507,852.00	HWW-115	603.8	762	1.262	640,909	1.000	640,909
354.40	354.40	Electrical Equipment	2012	2012				822,075.60	HWW-115	603.8	762	1.262	1,037,459	1.000	1,037,459
		Subtotal WWTP Primary Sludge Pump Station York 04						**3,304,742.82**					**7,475,384**		**7,475,384**
		WWTP Train 1 & 2 FeSO4 Tank York 05													
354.40	354.40	Structure	1990	1990				20,492.40	HWW-115	271	762	2.812	57,625	1.000	57,625

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (12)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	Structure	1961	1961				58,620.00	HWW-115	191	762	3.990	233,894	1.000	233,894
380.20	380.00	Process Equipment	1990	1990				114,600.00	HWW-117	328	1075	3.277	375,544	1.000	375,544
354.40	354.40	Structure	2008	2008				18,000.00	HWW-115	536.3	762	1.416	25,488	1.000	25,488
380.20	380.00	Process Equipment	2008	2008				6,000.00	HWW-117	629	1075	1.709	10,254	1.000	10,254
354.40	354.40	Piping	2008	2008				24,000.00	HWW-115	536.3	762	1.416	33,984	1.000	33,984
354.40	354.40	Electrical Wiring	2008	2008				4,500.00	HWW-115	536.3	762	1.416	6,372	1.000	6,372
354.40	354.40	Electrical Equipment	2008	2008				1,200.00	HWW-115	536.3	762	1.416	1,699	1.000	1,699
		Subtotal WWTP Train 1 & 2 FeSO4 Tank York 05						**247,412.40**					**744,880**		**744,880**
		WWTP Stormwater Pumping Station York 06													
354.40	354.40	Structure	1954	1954				32,904.00	HWW-115	41	762	18.585	611,521	1.000	611,521
354.40	354.40	Structure	1963	1963				62,179.20	HWW-115	55	762	13.855	861,493	1.000	861,493
354.40	354.40	Structure	1981	1981				1,589.60	HWW-115	191	762	3.990	6,382	1.000	6,382
354.40	354.40	Structure	1990	1990				37,968.20	HWW-115	271	762	2.812	106,769	1.000	106,769
380.00	380.00	Process Equipment	1990	1990				198,052.80	HWW-117	328	1075	3.277	649,019	1.000	649,019
354.40	354.40	Piping	1990	1990				91,844.40	HWW-115	271	762	2.812	258,266	1.000	258,266
354.40	354.40	Piping	1963	1963				1,330.80	HWW-115	55	762	13.855	18,438	1.000	18,438
354.40	354.40	Electrical Wiring	1990	1990				10,065.60	HWW-115	271	762	2.812	28,304	1.000	28,304
354.40	354.40	Electrical Equipment	1990	1990				1,033.20	HWW-115	271	762	2.812	2,905	1.000	2,905
354.40	354.40	Baffles	2014	2014				17,432.40	HWW-115	630.6	762	1.208	21,058	1.000	21,058
		Subtotal WWTP Stormwater Pumping Station York 06						**454,411.20**					**2,564,155**		**2,564,155**
		WWTP Primary Effluent Pump Station York 07													
354.40	354.40	Structure	1954	1954				9,715.20	HWW-115	41	762	18.585	180,557	1.000	180,557
354.40	354.40	Structure	1991	1991				71,173.20	HWW-115	274	762	2.781	197,933	1.000	197,933
380.00	380.00	Process Equipment	1991	1991				43,519.20	HWW-117	334	1075	3.219	140,066	1.000	140,066
354.40	354.40	Piping	1991	1991				49,873.20	HWW-115	274	762	2.781	138,697	1.000	138,697
354.40	354.40	Electrical Equipment	1991	1991				1,080.00	HWW-115	274	762	2.781	3,003	1.000	3,003
380.00	380.00	Drainage Pump	1998	1998				4,200.00	HWW-117	401	1075	2.681	11,260	1.000	11,260
354.40	354.40	Structure	2001	2001				5,032.80	HWW-115	378	762	2.016	10,146	1.000	10,146
380.00	380.00	Process Equipment	2001	2001				82,792.80	HWW-117	438.8	1075	2.450	202,842	1.000	202,842
380.00	380.00	Process Equipment	2010	2010				79,304.40	HWW-117	694.5	1075	1.548	122,763	1.000	122,763
354.40	354.40	Piping	2010	2010				16,590.00	HWW-115	559.8	762	1.361	22,579	1.000	22,579
354.40	354.40	Structure	2010	2010				12,384.00	HWW-115	559.8	762	1.361	16,855	1.000	16,855
354.40	354.40	Electrical Wiring	2010	2010				6,502.80	HWW-115	559.8	762	1.361	8,850	1.000	8,850
354.40	354.40	Electrical Wiring	2012	2012				47,908.80	HWW-115	603.8	762	1.262	60,461	1.000	60,461
354.40	354.40	Roof Replacement	2013	2013				9,856.80	HWW-115	613.8	762	1.241	12,232	1.000	12,232
380.00	380.00	Prim. Eff. Pump #2 Rehab	2013	2013				28,284.00	HWW-117	780.5	1075	1.377	38,947	1.000	38,947
		Subtotal WWTP Primary Effluent Pump Station York 07						**468,217.20**					**1,167,213**		**1,167,213**
		WWTP Old PS-1; New T-1 Feed Pump Station York 08													
354.40	354.40	Structure	1981	1981				218,202.85	HWW-115	191	762	3.990	870,629	1.000	870,629
380.00	380.00	Process Equipment	1981	1981				74,400.00	HWW-117	223	1075	4.821	358,682	1.000	358,682
354.40	354.40	Piping	1981	1981				107,023.20	HWW-115	191	762	3.990	427,023	1.000	427,023
354.40	354.40	Electrical Wiring	1981	1981				3,874.80	HWW-115	191	762	3.990	15,460	1.000	15,460
354.40	354.40	Electrical Equipment	1981	1981				2,426.40	HWW-115	191	762	3.990	9,681	1.000	9,681
354.40	354.40	Structure	2008	2008				69,963.60	HWW-115	538.3	762	1.416	99,068	1.000	99,068
		Subtotal WWTP Old PS-1; New T-1 Feed Pump Station York 08						**475,890.85**					**1,780,543**		**1,780,543**

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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								DC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cole(10) & (5)	Cost Indices Lookup Cole(10) & Study YR	(9) (12) / (11)	Col (5) * (12)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
		WWTP Train 1 Oxygen Reactor York 09													
354.40	354.40	Structure	1991	1991				8,152.80	HWW-115	274	762	2.781	22,673	1.000	22,673
354.40	354.40	Structure	1981	1981				1,308,141.60	HWW-115	191	762	3.990	5,219,485	1.000	5,219,485
380.14	380.00	Process Equipment	1991	1991				173,827.20	HWW-117	334	1075	3.219	559,550	1.000	559,550
354.40	354.40	Piping	1991	1991				75,758.40	HWW-115	274	762	2.781	210,684	1.000	210,684
354.40	354.40	Electrical Wiring	1991	1991				1,922.40	HWW-115	274	762	2.781	5,346	1.000	5,346
354.40	354.40	Electrical Wiring	1981	1981				12,000.00	HWW-115	191	762	3.990	47,880	1.000	47,880
354.40	354.40	Electrical Equipment	1991	1991				71,562.00	HWW-115	274	762	2.781	199,014	1.000	199,014
354.40	354.40	Electrical Equipment	1981	1981				7,200.00	HWW-115	191	762	3.990	28,728	1.000	28,728
		Subtotal WWTP Train 1 Oxygen Reactor York 09						**1,658,564.40**					**6,293,360**		**6,293,360**
		WWTP Oxygen Building York 10													
354.40	354.40	Structure	1981	1981				311,851.07	HWW-115	191	762	3.990	1,244,685	1.000	1,244,685
354.40	354.40	Electrical Wiring	1981	1981				38,610.00	HWW-115	191	762	3.990	154,054	1.000	154,054
354.40	354.40	Electrical Equipment	1991	1991				2,336.40	HWW-115	274	762	2.781	6,498	1.000	6,498
354.40	354.40	Electrical Equipment	1981	1981				42,426.40	HWW-115	191	762	3.990	169,289	1.000	169,289
354.40	354.40	Structure	2011	2011				71,991.60	HWW-115	583.5	762	1.306	94,021	1.000	94,021
354.40	354.40	Electrical Wiring	2011	2011				14,994.00	HWW-115	583.5	762	1.306	19,582	1.000	19,582
		Subtotal WWTP Oxygen Building York 10						**482,311.47**					**1,688,129**		**1,688,129**
		WWTP Train 1 Final Clarifier York 11													
354.40	354.40	Structure	1991	1991				138,060.00	HWW-115	274	762	2.781	383,945	1.000	383,945
354.40	354.40	Structure	1981	1981				722,886.00	HWW-115	191	762	3.990	2,884,315	1.000	2,884,315
380.15	380.00	Process Equipment	1991	1991				27,408.00	HWW-117	334	1075	3.219	88,226	1.000	88,226
380.15	380.00	Process Equipment	1981	1981				129,600.00	HWW-117	223	1075	4.821	624,802	1.000	624,802
354.40	354.40	Piping	1981	1981				26,706.00	HWW-115	191	762	3.990	106,557	1.000	106,557
354.40	354.40	Electrical Wiring	1981	1981				20,533.20	HWW-115	191	762	3.990	81,927	1.000	81,927
354.40	354.40	Electrical Equipment	1981	1981				6,722.40	HWW-115	191	762	3.990	26,822	1.000	26,822
		Subtotal WWTP Train 1 Final Clarifier York 11						**1,071,915.60**					**4,196,594**		**4,196,594**
		WWTP Train 1 RSPS (Primary Switch Gear) York 12													
354.40	354.40	Structure	1991	1991				1,200.00	HWW-115	274	762	2.781	3,337	1.000	3,337
354.40	354.40	Structure	1981	1981				148,840.25	HWW-115	191	762	3.990	593,873	1.000	593,873
380.00	380.00	Process Equipment	1991	1991				4,800.00	HWW-117	334	1075	3.219	15,451	1.000	15,451
354.40	354.40	Electrical Wiring	1981	1981				22,489.20	HWW-115	191	762	3.990	89,732	1.000	89,732
354.40	354.40	Electrical Equipment	1991	1991				3,872.40	HWW-115	274	762	2.781	10,769	1.000	10,769
354.40	354.40	Electrical Equipment	1981	1981				9,817.80	HWW-115	191	762	3.990	39,173	1.000	39,173
354.40	354.40	Structure	2008	2008				75,946.40	HWW-115	538.3	762	1.416	106,956	1.000	106,956
380.00	380.00	Process Equipment	2011	2011				24,360.00	HWW-117	717.5	1075	1.498	36,491	1.000	36,491
354.40	354.40	Structure	2011	2011				88,314.00	HWW-115	583.5	762	1.306	115,338	1.000	115,338
354.40	354.40	Electrical Wiring	2011	2011				204,805.40	HWW-115	583.5	762	1.306	267,477	1.000	267,477
354.40	354.40	Electrical Equipment	2011	2011				694,498.80	HWW-115	583.5	762	1.306	907,015	1.000	907,015
		Subtotal WWTP Train 1 RSPS (Primary Switch Gear) York 12						**1,279,945.25**					**2,187,612**		**2,187,612**
		WWTP Chief Operator Mini-Lab York 13													
354.40	354.40	Structure	1981	1981				82,801.20	HWW-115	191	762	3.990	330,377	1.000	330,377
380.00	380.00	Process Equipment	1981	1981				33,170.40	HWW-117	223	1075	4.821	159,914	1.000	159,914
354.40	354.40	Piping	1981	1981				14,482.80	HWW-115	191	762	3.990	57,786	1.000	57,786
354.40	354.40	Electric Equipment	1981	1981				9,589.20	HWW-115	191	762	3.990	38,261	1.000	38,261
		Subtotal WWTP Chief Operator Mini-Lab York 13						**140,043.60**					**586,338**		**586,338**

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Pennsylvania American Water Company
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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detailed by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Calc(10) & (5)	Cost Indices Lookup Calc(10) & Study YR	Cal (12) / (11)	Cal (5) * (13)	AUS Input	Cal (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
		WWTP Train 2 A20 Tank York 14													
354.40	354.40	Structure	1954	1954				313,375.20	HWW-115	41	782	18.585	5,824,078	1.000	5,824,078
354.40	354.40	Structure	1981	1981				1,599.60	HWW-115	191	782	3.990	6,382	1.000	6,382
354.40	354.40	Structure	1990	1990				1,477,891.20	HWW-115	271	782	2.812	4,155,830	1.000	4,155,830
354.40	354.40	Electrical Equipment	1990	1990				44,904.00	HWW-115	271	782	2.812	126,270	1.000	126,270
380.20	380.00	MLSS Analyzer	1999	1999				3,264.00	HWW-117	410	1075	2.622	8,558	1.000	8,558
380.20	380.00	Process Equipment	2012	2012				3,074,415.60	HWW-117	753	1075	1.428	4,390,265	1.000	4,390,265
354.40	354.40	Piping	2012	2012				435,000.00	HWW-115	603.8	782	1.262	548,970	1.000	548,970
354.40	354.40	Structure	2012	2012				295,770.00	HWW-115	603.8	782	1.262	373,262	1.000	373,262
354.40	354.40	Electrical Wiring	2012	2012				289,933.20	HWW-115	603.8	782	1.262	365,896	1.000	365,896
		Subtotal WWTP Train 2 A20 Tank York 14						**5,936,152.80**					**15,799,511**		**15,799,511**
		WWTP T2 Final Clarifiers 1, 2, & 3 York 15													
354.40	354.40	Structure	1954	1954				160,860.26	HWW-115	41	782	18.585	2,989,588	1.000	2,989,588
354.40	354.40	Structure	1963	1963				187,663.60	HWW-115	55	782	13.855	2,602,850	1.000	2,602,850
354.40	354.40	Structure	1990	1990				93,054.00	HWW-115	271	782	2.812	261,668	1.000	261,668
380.15	380.00	Process Equipment	1963	1963				30,060.00	HWW-117	80	1075	17.917	538,585	1.000	538,585
380.15	380.00	Process Equipment	1990	1990				323,696.40	HWW-117	328	1075	3.277	1,060,753	1.000	1,060,753
354.40	354.40	Piping	1963	1963				40,144.80	HWW-115	55	782	13.855	556,206	1.000	556,206
354.40	354.40	Piping	1990	1990				100,624.80	HWW-115	271	782	2.812	282,957	1.000	282,957
354.40	354.40	Electrical Wiring	1990	1990				18,267.60	HWW-115	271	782	2.812	51,368	1.000	51,368
354.40	354.40	Electrical Equipment	1990	1990				864.00	HWW-115	271	782	2.812	2,430	1.000	2,430
380.15	380.00	Process Equipment	2010	2010				213,600.00	HWW-117	684.5	1075	1.548	330,653	1.000	330,653
380.15	380.00	Process Equipment	2011	2011				227,782.80	HWW-117	717.5	1075	1.498	341,219	1.000	341,219
354.40	354.40	Structure	2011	2011				144,800.40	HWW-115	583.5	782	1.306	189,109	1.000	189,109
354.40	354.40	Electrical Wiring	2011	2011				15,252.00	HWW-115	583.5	782	1.306	19,919	1.000	19,919
380.15	380.00	Process Piping	2012	2012				222,000.00	HWW-117	753	1075	1.428	317,016	1.000	317,016
380.15	380.00	Process Equipment	2012	2012				72,000.00	HWW-117	753	1075	1.428	102,816	1.000	102,816
354.40	354.40	Structure	2012	2012				72,399.60	HWW-115	603.8	782	1.262	91,368	1.000	91,368
354.40	354.40	Electrical Wiring	2012	2012				2,518.80	HWW-115	603.8	782	1.262	3,179	1.000	3,179
		Subtotal WWTP T2 Final Clarifiers 1, 2, & 3 York 15						**1,925,789.06**					**9,741,684**		**9,741,684**
		WWTP Train 2 RSPS													
354.40	354.40	Structure	1990	1990				664,536.00	HWW-115	271	782	2.812	1,868,675	1.000	1,868,675
380.00	380.00	Process Equipment	1990	1990				165,743.43	HWW-117	328	1075	3.277	543,418	1.000	543,418
354.40	354.40	Piping	1990	1990				188,961.24	HWW-115	271	782	2.812	531,359	1.000	531,359
354.40	354.40	Electrical Wiring	1990	1990				41,761.50	HWW-115	271	782	2.812	117,433	1.000	117,433
354.40	354.40	Structure	2003	2003				17,215.20	HWW-115	383.5	782	1.936	33,329	1.000	33,329
380.00	380.00	Process Equipment	2003	2003				42,092.40	HWW-117	460	1075	2.337	98,370	1.000	98,370
354.40	354.40	Piping	2003	2003				11,521.20	HWW-115	383.5	782	1.936	22,305	1.000	22,305
354.40	354.40	Electrical Wiring	2003	2003				5,977.20	HWW-115	383.5	782	1.936	11,572	1.000	11,572
380.00	380.00	Process Equipment	2010	2010				39,000.00	HWW-117	694.5	1075	1.548	60,372	1.000	60,372
354.40	354.40	Piping	2010	2010				5,750.40	HWW-115	559.8	782	1.361	7,826	1.000	7,826
354.40	354.40	Electrical Wiring	2010	2010				5,067.60	HWW-115	559.8	782	1.361	6,897	1.000	6,897
354.40	354.40	Electrical Equipment	2010	2010				3,184.80	HWW-115	559.8	782	1.361	4,335	1.000	4,335
354.40	354.40	Electrical Equipment	2011	2011				35,146.80	HWW-115	583.5	782	1.306	45,902	1.000	45,902
354.40	354.40	Electrical Wiring	2011	2011				5,216.40	HWW-115	583.5	782	1.306	6,813	1.000	6,813
380.00	380.00	Process Equipment	2011	2011				230,702.40	HWW-117	717.5	1075	1.498	345,592	1.000	345,592

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
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Replacement Cost New (RCN)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OCLS					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Burkett Huss Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Code(10) & (5)	Cost Indices Lookup Cost(10) & Study YR	Col (12) / (11)	Col (9) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
380.00	380.00	Process Equipment	2012	2012				20,440.80	HWW-117	753	1075	1.428	29,189	1.000	29,189
354.40	354.40	Roof Replacement	2013	2013				32,019.60	HWW-115	613.8	762	1.241	39,736	1.000	39,736
380.00	380.00	Pump Replacement	2013	2013				6,068.40	HWW-117	780.5	1075	1.377	8,356	1.000	8,356
		Subtotal WWTP Train 2 RSPS						**1,521,405.37**					**3,784,479**		**3,784,479**
		WWTP Train 3 Parshall Flume York 17													
354.40	354.40	Structure	1988	1988				45,000.00	HWW-115	251	762	3.036	136,620	1.000	136,620
354.40	354.40	Piping	1988	1988				3,000.00	HWW-115	251	762	3.036	9,108	1.000	9,108
354.40	354.40	Electrical Wiring	1988	1988				3,052.80	HWW-115	251	762	3.036	9,268	1.000	9,268
354.40	354.40	Electrical Equipment	1988	1988				1,200.00	HWW-115	251	762	3.036	3,643	1.000	3,643
354.40	354.40	Structure	2001	2001				91,320.00	HWW-115	378	762	2.016	184,101	1.000	184,101
354.40	354.40	Piping	2001	2001				125,805.60	HWW-115	378	762	2.016	253,624	1.000	253,624
		Subtotal WWTP Train 3 Parshall Flume York 17						**269,376.40**					**598,364**		**598,364**
		WWTP Train # A20 Splitter Box York 18													
354.40	354.40	Structure	1988	1988				45,600.00	HWW-115	251	762	3.036	138,442	1.000	138,442
380.20	380.00	Process Equipment	1988	1988				12,000.00	HWW-117	303	1075	3.548	42,576	1.000	42,576
354.40	354.40	Electric Wiring	1988	1988				2,472.00	HWW-115	251	762	3.036	7,505	1.000	7,505
		Subtotal WWTP Train # A20 Splitter Box York 18						**60,072.00**					**188,523**		**188,523**
		WWTP Train 3 A20 Tank York 19													
354.40	354.40	Structure	1988	1988				4,573,944.00	HWW-115	251	762	3.036	13,886,494	1.000	13,886,494
380.20	380.00	ATI self-cleaning unit	2003	2003				3,438.00	HWW-117	460	1075	2.337	8,035	1.000	8,035
354.40	354.40	Piping	1988	1988				24,000.00	HWW-115	251	762	3.036	72,864	1.000	72,864
354.40	354.40	Electrical Equipment	1988	1988				8,400.00	HWW-115	251	762	3.036	25,502	1.000	25,502
380.20	380.00	Process Equipment	2011	2011				4,281,618.00	HWW-117	717.5	1075	1.498	6,413,864	1.000	6,413,864
354.40	354.40	Piping	2011	2011				658,800.00	HWW-115	583.5	762	1.306	860,393	1.000	860,393
354.40	354.40	Structure	2011	2011				354,000.00	HWW-115	583.5	762	1.306	462,324	1.000	462,324
354.40	354.40	Electrical Wiring	2011	2011				574,174.80	HWW-115	583.5	762	1.306	749,872	1.000	749,872
354.40	354.40	Structure	2012	2012				3,205.20	HWW-115	603.8	762	1.262	4,045	1.000	4,045
		Subtotal WWTP Train 3 A20 Tank York 19						**10,481,580.00**					**22,483,393**		**22,483,393**
		WWTP Train 3 Fin Clarifier Flow Splitter Box York 20													
354.40	354.40	Structure	1988	1988				60,000.00	HWW-115	251	762	3.036	182,160	1.000	182,160
380.15	380.00	Process Equipment	1988	1988				12,000.00	HWW-117	303	1075	3.548	42,576	1.000	42,576
354.40	354.40	Piping	1988	1988				12,000.00	HWW-115	251	762	3.036	36,432	1.000	36,432
354.40	354.40	Electrical Wiring	1988	1988				3,508.80	HWW-115	251	762	3.036	10,653	1.000	10,653
380.15	380.00	Process Equipment	2011	2011				109,557.60	HWW-117	717.5	1075	1.498	164,117	1.000	164,117
354.40	354.40	Piping	2011	2011				3,000.00	HWW-115	583.5	762	1.306	3,918	1.000	3,918
354.40	354.40	Structure	2011	2011				32,245.20	HWW-115	583.5	762	1.306	42,112	1.000	42,112
354.40	354.40	Electrical Wiring	2011	2011				10,994.40	HWW-115	583.5	762	1.306	14,359	1.000	14,359
354.40	354.40	Electrical Equipment	2011	2011				3,000.00	HWW-115	583.5	762	1.306	3,918	1.000	3,918
		Subtotal WWTP Train 3 Fin Clarifier Flow Splitter Box York 20						**246,306.00**					**500,245**		**500,345**
		WWTP Train 3 Final Clarifier 1, 2, & 3 York 21													
354.40	354.40	Structure	1988	1988				1,758,902.40	HWW-115	251	762	3.036	5,340,028	1.000	5,340,028
380.15	380.00	Process Equipment	1988	1988				441,600.00	HWW-117	303	1075	3.548	1,566,797	1.000	1,566,797
354.40	354.40	Piping	1988	1988				9,600.00	HWW-115	251	762	3.036	29,146	1.000	29,146
354.40	354.40	Electrical Wiring	1988	1988				65,433.60	HWW-115	251	762	3.036	198,656	1.000	198,656
354.40	354.40	Electrical Equipment	1988	1988				3,600.00	HWW-115	251	762	3.036	10,930	1.000	10,930
380.15	380.00	Process Equipment	2010	2010				393,572.40	HWW-117	694.5	1075	1.548	609,250	1.000	609,250

1	2	4	4	5	6	7	8	9	10	11	12	13	14	15	16

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Replacement Cost New (RCN)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	ALIS Input	City of York Wastewater Assets Detail By Bechtel Harn Engineers	Eng Assmnt	ALIS Input				Eng Assmnt	ALIS Input	Cost Indices Lookup Cost(10) & (8)	Cost Indices Lookup Cost(10) & Study YR	Col (12) / (11)	Col (5) * (13)	ALIS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
		Subtotal WWTP Train 3 Final Clarifier 1, 2, & 3 York 21						**2,672,708.40**					**7,754,807**		**7,754,807**
		WWTP Train 3 RSPS York 22													
354.40	354.40	Structure	1988	1988				626,465.88	HWW-115	251	762	3.036	1,901,950	1.000	1,901,950
380.00	380.00	Process Equipment	1988	1988				60,021.96	HWW-117	303	1075	3.548	212,958	1.000	212,958
354.40	354.40	Piping	1988	1988				220,800.00	HWW-115	251	762	3.036	670,349	1.000	670,349
354.40	354.40	Electrical Wiring	1988	1988				46,589.50	HWW-115	251	762	3.036	141,446	1.000	141,446
354.40	354.40	Structure	2008	2008				120,794.40	HWW-115	536.3	762	1.416	171,045	1.000	171,045
380.00	380.00	Process Equipment	2008	2008				66,600.00	HWW-117	629	1075	1.709	113,819	1.000	113,819
354.40	354.40	Piping	2008	2008				12,000.00	HWW-115	536.3	762	1.416	16,992	1.000	16,992
354.40	354.40	Electrical Wiring	2008	2008				4,500.00	HWW-115	536.3	762	1.416	6,372	1.000	6,372
354.40	354.40	Electrical Equipment	2008	2008				1,200.00	HWW-115	536.3	762	1.416	1,699	1.000	1,699
380.00	380.00	Process Equipment	2011	2011				223,502.40	HWW-117	717.5	1075	1.498	334,807	1.000	334,807
354.40	354.40	Piping	2011	2011				209,583.60	HWW-115	583.5	762	1.306	273,716	1.000	273,716
354.40	354.40	Electrical Wiring	2011	2011				73,311.60	HWW-115	583.5	762	1.306	95,745	1.000	95,745
354.40	354.40	Electrical Equipment	2011	2011				1,223,802.60	HWW-115	583.5	762	1.306	1,598,025	1.000	1,598,025
		Subtotal WWTP Train 3 RSPS York 22						**2,888,972.14**					**5,538,923**		**5,538,923**
		WWTP Train 3 FeSO4 York 23													
354.40	354.40	Structure	1988	1988				75,600.00	HWW-115	251	762	3.036	229,522	1.000	229,522
380.20	380.00	Process Equipment	1988	1988				66,000.00	HWW-117	303	1075	3.548	234,168	1.000	234,168
354.40	354.40	Structure	2008	2008				18,000.00	HWW-115	536.3	762	1.416	25,486	1.000	25,486
380.20	380.00	Process Equipment	2008	2008				6,000.00	HWW-117	629	1075	1.709	10,254	1.000	10,254
354.40	354.40	Piping	2008	2008				24,000.00	HWW-115	536.3	762	1.416	33,984	1.000	33,984
354.40	354.40	Electrical Wiring	2008	2008				4,500.00	HWW-115	536.3	762	1.416	6,372	1.000	6,372
354.40	354.40	Electrical Equipment	2008	2008				1,200.00	HWW-115	536.3	762	1.416	1,699	1.000	1,699
		Subtotal WWTP Train 3 FeSO4 York 23						**195,300.00**					**541,487**		**541,487**
		WWTP Filter Building York 24													
354.40	354.40	Structure	1989	1989				1,917,082.66	HWW-115	265	762	2.875	5,511,613	1.000	5,511,613
354.40	354.40	Piping	2021	2021				66,078.00	HWW-115	762	762	1.000	66,078	1.000	66,078
354.40	354.40	Electrical Wiring	2021	2021				88,800.00	HWW-115	762	762	1.000	88,800	1.000	88,800
354.40	354.40	Electrical Equipment	2021	2021				240,000.00	HWW-115	762	762	1.000	240,000	1.000	240,000
380.40	380.00	1-EIM Gate Operator	2021	2021				3,360.00	HWW-117	1075	1075	1.000	3,360	1.000	3,360
380.40	380.00	Filter Equip. Replace	2021	2021				6,515,594.40	HWW-117	1075	1075	1.000	6,515,594	1.000	6,515,594
354.40	354.40	Structure	2021	2021				51,580.80	HWW-115	762	762	1.000	51,581	1.000	51,581
380.40	380.00	Mechanical Equipment	2021	2021				192,000.00	HWW-117	1075	1075	1.000	192,000	1.000	192,000
354.40	354.40	Structure	2021	2021				500,912.40	HWW-115	762	762	1.000	500,912	1.000	500,912
380.40	380.00	Wear Gates and Operators	2015	2015				124,794.00	HWW-117	843.3	1075	1.275	159,112	1.000	159,112
380.40	380.00	Mud Valves	2014	2014				23,976.00	HWW-117	814.5	1075	1.320	31,648	1.000	31,648
380.40	380.00	Slop Log	2015	2015				10,155.60	HWW-117	843.3	1075	1.275	12,948	1.000	12,948
		Subtotal WWTP Filter Building York 24						**9,734,333.86**					**13,373,646**		**13,373,646**
		WWTP Ultraviolet Light Contact Tank York 25													
354.40	354.40	Structure	1989	1989				533,930.40	HWW-115	265	762	2.875	1,535,050	1.000	1,535,050
354.40	354.40	Structure	1981	1981				373,072.80	HWW-115	191	762	3.990	1,488,560	1.000	1,488,560
380.30	380.00	Process Equipment	1989	1989				110,868.00	HWW-117	317	1075	3.391	375,953	1.000	375,953
380.30	380.00	Process Equipment	1981	1981				38,046.00	HWW-117	223	1075	4.821	183,420	1.000	183,420
354.40	354.40	Piping	1981	1981				16,006.80	HWW-115	191	762	3.990	63,867	1.000	63,867
354.40	354.40	3-EIM Gate Operators	1999	1999				10,080.00	HWW-115	343	762	2.222	22,398	1.000	22,398

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmt	AUS Input	City of York Wastewater Assets Detail by Bashart-Nave Engineers	Eng Assmt	AUS Input				Eng Assmt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	Year Index	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	Structure	2001	2001				208,362.00	HWW-115	378	762	2.016	420,058	1.000	420,058
380.30	380.00	Process Equipment	2001	2001				874,582.80	HWW-117	438.8	1075	2.450	2,142,728	1.000	2,142,728
354.40	354.40	Electrical Wiring	2001	2001				39,627.60	HWW-115	378	762	2.016	79,889	1.000	79,889
354.40	354.40	Electrical Equipment	2001	2001				23,265.60	HWW-115	378	762	2.016	46,903	1.000	46,903
380.30	380.00	Process Equipment	2013	2013				106,593.60	HWW-117	780.5	1075	1.377	146,779	1.000	146,779
		Subtotal WWTP Ultraviolet Light Contact Tank York 25						**2,334,435.60**					**6,505,605**		**6,505,805**
		WWTP Maintennce Building York 26													
354.40	354.40	Structure	1989	1989				1,259,844.34	HWW-115	265	762	2.875	3,622,052	1.000	3,822,052
354.40	354.40	Structure	1969	1969				107,553.60	HWW-115	69	762	11.043	1,187,714	1.000	1,187,714
380.00	380.00	Process Equipment	1969	1969				952.80	HWW-117	74	1075	14.527	13,841	1.000	13,841
354.40	354.40	Piping	1969	1969				488.00	HWW-115	69	762	11.043	5,168	1.000	5,168
354.40	354.40	Electrical Wiring	1989	1989				29,569.20	HWW-115	265	762	2.875	85,098	1.000	85,098
354.40	354.40	Electrical Equipment	1989	1989				4,110.00	HWW-115	265	762	2.875	11,816	1.000	11,816
354.40	354.40	Electrical Equipment	1969	1969				1,812.00	HWW-115	69	762	11.043	20,010	1.000	20,010
380.00	380.00	Process Equipment	1998	1998				10,980.00	HWW-117	401	1075	2.681	29,437	1.000	29,437
354.40	354.40	Structure	2008	2008				248,924.40	HWW-115	536.3	762	1.416	352,477	1.000	352,477
		Subtotal WWTP Maintennce Building York 25						**1,884,244.34**					**5,327,613**		**5,327,813**
		WWTP Solids Handling Building York 27													
354.40	354.40	Structure	1991	1991				582,976.80	HWW-115	274	762	2.781	1,621,258	1.000	1,621,258
354.40	354.40	Structure	1981	1981				3,059,013.90	HWW-115	191	762	3.990	12,205,465	1.000	12,205,465
380.00	380.00	Process Equipment	1991	1991				945,770.40	HWW-117	334	1075	3.219	3,044,435	1.000	3,044,435
380.00	380.00	Process Equipment	1981	1981				59,999.76	HWW-117	223	1075	4.821	289,259	1.000	289,259
354.40	354.40	Piping	1991	1991				228,930.00	HWW-115	274	762	2.781	636,654	1.000	636,654
354.40	354.40	Piping	1981	1981				119,999.88	HWW-115	191	762	3.990	478,800	1.000	478,800
354.40	354.40	Electrical Wiring	1991	1991				107,947.20	HWW-115	274	762	2.781	300,201	1.000	300,201
354.40	354.40	Electrical Wiring	1981	1981				45,093.60	HWW-115	191	762	3.990	179,923	1.000	179,923
354.40	354.40	Electrical Equipment	1991	1991				28,610.40	HWW-115	274	762	2.781	79,566	1.000	79,566
354.40	354.40	Electrical Equipment	1981	1981				38,447.40	HWW-115	191	762	3.990	153,405	1.000	153,405
354.40	354.40	Structure	1989	1989				109,694.40	HWW-115	265	762	2.875	315,371	1.000	315,371
354.40	354.40	Piping	1989	1989				32,056.80	HWW-115	265	762	2.875	92,163	1.000	92,163
354.40	354.40	Electrical Equipment	1989	1989				3,740.40	HWW-115	265	762	2.875	10,754	1.000	10,754
380.00	380.00	Polymer Mixers	1998	1998				33,120.00	HWW-117	401	1075	2.681	88,795	1.000	88,795
380.00	380.00	Sludge Feed Pumps	2016	2016				54,000.00	HWW-117	867.5	1075	1.239	66,906	1.000	66,906
380.00	380.00	P-23 Utility Pump	1999	1999				6,786.00	HWW-117	410	1075	2.622	17,793	1.000	17,793
380.00	380.00	P-24 Utility Pump	2000	2000				6,786.00	HWW-117	424	1075	2.535	17,203	1.000	17,203
354.40	354.40	Structure	2003	2003				120,525.60	HWW-115	393.5	762	1.936	233,338	1.000	233,338
380.00	380.00	Process Equipment	2003	2003				1,151,328.00	HWW-117	460	1075	2.337	2,690,654	1.000	2,690,654
354.40	354.40	Piping	2003	2003				255,372.00	HWW-115	393.5	762	1.936	494,400	1.000	494,400
354.40	354.40	Electrical Wiring	2003	2003				239,085.60	HWW-115	393.5	762	1.936	462,870	1.000	462,870
354.40	354.40	Electrical Equipment	2003	2003				10,843.20	HWW-115	393.5	762	1.936	20,992	1.000	20,992
380.00	380.00	Sludge Sampler	2004	2004				10,920.00	HWW-117	480	1075	2.240	24,461	1.000	24,461
364.00	364.00	N. Gas Flowmeter	2004	2004				2,419.20	HWW-140	207	485	2.343	5,668	1.000	5,668
380.00	380.00	Process Equip	2004	2004				122,790.00	HWW-117	480	1075	2.240	275,050	1.000	275,050
354.40	354.40	Electric Equip	2004	2004				33,517.20	HWW-115	420.8	762	1.811	60,700	1.000	60,700
354.40	354.40	Electric Wiring	2004	2004				27,142.80	HWW-115	420.8	762	1.811	49,156	1.000	49,156
354.40	354.40	Piping	2004	2004				36,442.80	HWW-115	420.8	762	1.811	65,986	1.000	65,986

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Burkett Huitt Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Calc(10) & (5)	Cost Indices Lookup Calc(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	Structure	2004	2004				14,180.00	HWW-115	420.8	762	1.811	25,644	1.000	25,644
380.00	380.00	Process Equip	2005	2005				473,168.24	HWW-117	505.5	1075	2.127	1,006,425	1.000	1,006,425
354.40	354.40	Piping	2005	2005				5,369.40	HWW-115	448	762	1.701	9,133	1.000	9,133
354.40	354.40	Electric Equip	2005	2005				14,894.40	HWW-115	448	762	1.701	25,335	1.000	25,335
354.40	354.40	Electric Wiring	2005	2005				20,376.24	HWW-115	448	762	1.701	34,660	1.000	34,660
354.40	354.40	Structure	2005	2005				77,197.83	HWW-115	448	762	1.701	131,313	1.000	131,313
380.00	380.00	Process Equip	2005	2005				82,173.20	HWW-117	505.5	1075	2.127	174,782	1.000	174,782
354.40	354.40	Electric Wiring	2005	2005				68,565.32	HWW-115	448	762	1.701	116,630	1.000	116,630
380.00	380.00	Process Equip	2006	2006				295,019.56	HWW-117	523.8	1075	2.052	605,380	1.000	605,380
354.40	354.40	Structure	2006	2006				229,083.76	HWW-115	466.3	762	1.634	374,323	1.000	374,323
354.40	354.40	Piping	2006	2006				109,969.56	HWW-115	466.3	762	1.634	179,690	1.000	179,690
354.40	354.40	Electrical Equip	2006	2006				14,426.70	HWW-115	466.3	762	1.634	23,573	1.000	23,573
354.40	354.40	Electrical Wiring	2006	2006				13,701.30	HWW-115	466.3	762	1.634	22,388	1.000	22,388
354.40	354.40	Structure	2008	2008				121,892.40	HWW-115	538.3	762	1.416	172,600	1.000	172,600
380.00	380.00	Process Equipment	2010	2010				109,081.76	HWW-117	694.5	1075	1.548	168,859	1.000	168,859
380.00	380.00	Process Equipment	2010	2010				1,963,851.60	HWW-117	694.5	1075	1.548	3,040,042	1.000	3,040,042
354.40	354.40	Piping	2010	2010				632,029.60	HWW-115	559.8	762	1.361	1,132,392	1.000	1,132,392
354.40	354.40	Structure	2010	2010				1,178,020.80	HWW-115	559.8	762	1.361	1,603,286	1.000	1,603,286
354.40	354.40	Electrical Wiring	2010	2010				556,951.20	HWW-115	559.8	762	1.361	758,011	1.000	758,011
354.40	354.40	Electrical Equipment	2010	2010				1,321,269.60	HWW-115	559.8	762	1.361	1,798,248	1.000	1,798,248
354.40	354.40	HVAC Equipment	2010	2010				195,130.80	HWW-115	559.8	762	1.361	265,573	1.000	265,573
354.40	354.40	HVAC Piping/Duct	2010	2010				208,891.20	HWW-115	559.8	762	1.361	284,301	1.000	284,301
354.40	354.40	Electrical Equipment	2011	2011				27,224.40	HWW-115	583.5	762	1.306	35,555	1.000	35,555
354.40	354.40	Piping	2012	2012				205,107.60	HWW-115	603.8	762	1.262	258,846	1.000	258,846
354.40	354.40	Structure	2012	2012				13,200.00	HWW-115	603.8	762	1.262	16,658	1.000	16,658
354.40	354.40	Electrical Wiring	2012	2012				2,239.20	HWW-115	603.8	762	1.262	2,826	1.000	2,826
380.00	380.00	Process Equipment	2012	2012				16,275.60	HWW-117	753	1075	1.428	23,242	1.000	23,242
380.00	380.00	(2)Blending units & (3) Centrifuge Pumps	2018	2018				22,200.00	HWW-117	934.8	1075	1.150	25,530	1.000	25,530
380.00	380.00	Centrifuge Rehabilitation	2014	2014				56,482.80	HWW-117	814.5	1075	1.320	74,557	1.000	74,557
354.40	354.40	Heat Trace Installation	2014	2014				15,355.20	HWW-115	630.8	762	1.208	18,548	1.000	18,549
380.00	380.00	Sensidyne Gas Detection System	2014	2014				15,337.20	HWW-117	814.5	1075	1.320	20,245	1.000	20,245
354.40	354.40	Gas Detection/Alarm	2014	2014				9,330.00	HWW-115	630.8	762	1.208	11,271	1.000	11,271
380.00	380.00	Capacitor	2014	2014				7,112.40	HWW-117	814.5	1075	1.320	9,388	1.000	9,388
354.40	354.40	Glass Lined Valves	2014	2014				44,608.80	HWW-115	630.8	762	1.208	53,887	1.000	53,887
380.00	380.00	Vanton Pump	2015	2015				15,985.20	HWW-117	843.3	1075	1.275	20,381	1.000	20,381
380.00	380.00	Vaughn Pump HE	2015	2015				17,157.60	HWW-117	843.3	1075	1.275	21,876	1.000	21,876
380.00	380.00	Vaughn Vertical WW Pump	2015	2015				13,650.00	HWW-117	843.3	1075	1.275	17,404	1.000	17,404
380.00	380.00	VFD's	2015	2015				11,929.20	HWW-117	843.3	1075	1.275	15,210	1.000	15,210
380.00	380.00	Backwash Strainer	2015	2015				20,400.00	HWW-117	843.3	1075	1.275	26,010	1.000	26,010
380.00	380.00	Sulfuric Acid Tank	2015	2015				31,993.20	HWW-117	843.3	1075	1.275	40,791	1.000	40,791
380.00	380.00	Fairbanks Morse Pumps	2015	2015				36,795.60	HWW-117	843.3	1075	1.275	46,914	1.000	46,914
354.40	354.40	Gear Unit Repair	2016	2016				70,043.28	HWW-115	661.3	762	1.152	80,690	1.000	80,690
354.40	354.40	Heat Trace Panel	2016	2016				23,802.73	HWW-115	661.3	762	1.152	27,421	1.000	27,421
394.00	394.00	Wilo Sub Pump	2016	2016				6,912.73	AUST-17	513	556	1.084	7,493	1.000	7,493
394.00	394.00	(3)Wilo Pumps	2016	2016				23,168.22	AUST-17	513	556	1.084	25,112	1.000	25,112
394.00	394.00	(2) Wilo Pumps	2016	2016				23,958.43	AUST-17	513	556	1.084	25,982	1.000	25,982

Pennsylvania American Water Company
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Investor-Owned Utility
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Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Burkhart Nave Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Code(10) & (5)	Cost Indices Lookup Code(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	GBT Sample Pump	2016	2016				12,120.00	HWW-115	661.3	762	1.152	13,962	1.000	13,962
354.40	354.40	Strainer	2016	2016				12,960.00	HWW-115	661.3	762	1.152	14,930	1.000	14,930
354.40	354.40	Sump Pump	2016	2016				29,450.00	HWW-115	661.3	762	1.152	33,938	1.000	33,938
354.40	354.40	Dodge Reducer	2016	2016				21,834.00	HWW-115	661.3	762	1.152	25,153	1.000	25,153
354.40	354.40	Polymer Feed Pump	2016	2016				14,770.80	HWW-115	661.3	762	1.152	17,016	1.000	17,016
		Subtotal WWTP Solids Handling Building York 27						**16,200,003.80**					**36,944,683**		**36,944,683**
		WWTP Control Building York 28													
354.40	354.40	Structure	1954	1954				250,700.40	HWW-115	41	762	18.585	4,659,267	1.000	4,659,267
354.40	354.40	Structure	1963	1963				135,139.20	HWW-115	55	762	13.855	1,872,354	1.000	1,872,354
354.40	354.40	Structure	1981	1981				39,098.40	HWW-115	191	762	3.990	156,003	1.000	156,003
354.40	354.40	Structure	1991	1991				834,875.09	HWW-115	274	762	2.781	2,321,788	1.000	2,321,788
380.00	380.00	Process Equipment	1991	1991				445,834.80	HWW-117	334	1075	3.219	1,435,142	1.000	1,435,142
380.00	380.00	Process Equipment	1981	1981				20,810.40	HWW-117	223	1075	4.821	100,327	1.000	100,327
354.40	354.40	Piping	1991	1991				44,227.20	HWW-115	274	762	2.781	122,996	1.000	122,996
354.40	354.40	Electrical Wiring	1991	1991				428,067.60	HWW-115	274	762	2.781	1,190,456	1.000	1,190,456
354.40	354.40	Electrical Wiring	1981	1981				540.00	HWW-115	191	762	3.990	2,155	1.000	2,155
354.40	354.40	Structure	1989	1989				78,289.20	HWW-115	265	762	2.875	225,081	1.000	225,081
380.00	380.00	Process Equipment	1989	1989				270,398.40	HWW-117	317	1075	3.391	916,921	1.000	916,921
354.40	354.40	Piping	1989	1989				91,464.00	HWW-115	265	762	2.875	262,959	1.000	262,959
354.40	354.40	Electrical Equipment	1989	1989				37,417.20	HWW-115	265	762	2.875	107,574	1.000	107,574
354.40	354.40	Electrical Equipment	1991	1991				3,290,661.94	HWW-115	274	762	2.781	9,151,331	1.000	9,151,331
354.40	354.40	UPS-Cogeneration	2002	2002				11,850.00	HWW-115	388.8	762	1.960	23,226	1.000	23,226
354.40	354.40	Electrical Equipment	1981	1981				338.40	HWW-115	191	762	3.990	1,350	1.000	1,350
354.40	354.40	VAX Upgrade	1995	1995				29,180.40	HWW-115	316	762	2.411	70,354	1.000	70,354
354.40	354.40	Electrical Equipment	1997	1997				10,500.00	HWW-115	331	762	2.302	24,171	1.000	24,171
380.00	380.00	Computer System	1999	1999				738,488.40	HWW-117	410	1075	2.622	1,936,317	1.000	1,936,317
354.40	354.40	HVAC Upgrade	1999	1999				131,070.00	HWW-115	343	762	2.222	291,238	1.000	291,238
354.40	354.40	SCADAlarm System	2002	2002				49,371.60	HWW-115	388.8	762	1.960	96,768	1.000	96,768
354.40	354.40	Electrical Wiring	2003	2003				20,292.00	HWW-115	393.5	762	1.936	39,285	1.000	39,285
354.40	354.40	Electrical Equipment	2003	2003				124,698.80	HWW-115	393.5	762	1.936	241,413	1.000	241,413
354.40	354.40	Electrical Equipment	2007	2007				22,206.00	HWW-115	496.3	762	1.535	34,086	1.000	34,086
354.40	354.40	Structure	2008	2008				201,196.80	HWW-115	538.3	762	1.416	284,895	1.000	284,895
354.40	354.40	Structure	2010	2010				344,836.80	HWW-115	559.8	762	1.361	469,323	1.000	469,323
354.40	354.40	Electrical Wiring	2010	2010				160,629.60	HWW-115	559.8	762	1.361	218,617	1.000	218,617
354.40	354.40	Electrical Equipment	2010	2010				106,533.60	HWW-115	559.8	762	1.361	144,992	1.000	144,992
380.00	380.00	Process Equipment	2010	2010				27,240.00	HWW-117	694.5	1075	1.548	42,168	1.000	42,168
380.00	380.00	Process Piping	2010	2010				36,160.00	HWW-117	694.5	1075	1.548	56,072	1.000	56,072
354.40	354.40	Piping	2011	2011				37,447.20	HWW-115	583.5	762	1.306	48,906	1.000	48,906
354.40	354.40	Electrical Wiring	2011	2011				180,765.60	HWW-115	583.5	762	1.306	236,080	1.000	236,080
354.40	354.40	Electrical Equipment	2011	2011				20,721.60	HWW-115	583.5	762	1.306	27,062	1.000	27,062
354.40	354.40	Struct. (Breakroom Renovation)	2014	2014				49,522.80	HWW-115	630.8	762	1.208	59,824	1.000	59,824
354.40	354.40	Struct. (Bathroom Renovation)	2014	2014				17,134.80	HWW-115	630.8	762	1.208	20,699	1.000	20,699
		Subtotal WWTP Control Building York 28						**$ 288,708.23**					**26,894,200**		**26,894,200**
		WWTP Gravity Thickeners York 29													
354.40	354.40	Structure	1990	1990				120,858.00	HWW-115	271	762	2.812	339,853	1.000	339,853
354.40	354.40	Structure	1981	1981				408,910.80	HWW-115	191	762	3.990	1,631,554	1.000	1,631,554

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Effective Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OCD $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detailed Backup from Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study Yr	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
380.00	380.00	Process Equipment	1990	1990				59,880.00	HWW-117	325	1075	3.277	196,227	1.000	196,227
380.00	380.00	Process Equipment	1981	1981				131,573.19	HWW-117	223	1075	4.821	634,314	1.000	634,314
354.40	354.40	Piping	1990	1990				7,315.20	HWW-115	271	762	2.812	20,570	1.000	20,570
354.40	354.40	Piping	1981	1981				22,345.20	HWW-115	191	762	3.990	89,157	1.000	89,157
354.40	354.40	Electrical Wiring	1990	1990				9,727.20	HWW-115	271	762	2.812	27,353	1.000	27,353
354.40	354.40	Electrical Wiring	1981	1981				14,294.40	HWW-115	191	762	3.990	57,035	1.000	57,035
354.40	354.40	Electrical Equipment	1990	1990				1,641.60	HWW-115	271	762	2.812	4,616	1.000	4,616
354.40	354.40	Electrical Equipment	1981	1981				5,942.40	HWW-115	191	762	3.990	23,710	1.000	23,710
380.00	380.00	Process Equipment	2010	2010				149,509.20	HWW-117	694.5	1075	1.548	231,440	1.000	231,440
380.00	380.00	Grav. Belt Thick. Sludge Pumps	2019	2019				28,800.00	HWW-117	980.5	1075	1.096	31,565	1.000	31,565
		Subtotal: WWTP Gravity Thickeners York 29						**980,797.19**					**3,287,394**		**3,287,394**
		WWTP Microturbine Building York 30													
354.40	354.40	Structure	1991	1991				362,285.04	HWW-115	274	762	2.781	1,007,515	1.000	1,007,515
354.40	354.40	Structure	1981	1981				93,705.60	HWW-115	191	762	3.990	373,865	1.000	373,865
354.40	354.40	Structure	1968	1968				153,921.60	HWW-115	64	762	11.906	1,832,591	1.000	1,832,591
354.40	354.40	Structure	2008	2008				246,264.00	HWW-115	538.3	762	1.416	348,710	1.000	348,710
380.00	380.00	Process Equipment	2011	2011				183,160.00	HWW-117	717.5	1075	1.498	274,404	1.000	274,404
354.40	354.40	Piping	2011	2011				274,323.60	HWW-115	583.5	762	1.306	358,267	1.000	358,267
354.40	354.40	Structure	2011	2011				466,532.40	HWW-115	583.5	762	1.306	609,291	1.000	609,291
354.40	354.40	Electrical Wiring	2011	2011				346,213.20	HWW-115	583.5	762	1.306	452,154	1.000	452,154
354.40	354.40	Electrical Equipment	2011	2011				3,893,083.20	HWW-115	583.5	762	1.306	5,084,367	1.000	5,084,367
354.40	354.40	Biogas Piping Improvement	2017	2017				135,720.00	HWW-115	675.3	762	1.128	153,092	1.000	153,092
		Subtotal: WWTP Microturbine Building York 30						**6,155,228.64**					**10,494,276**		**10,494,276**
		WWTP Pressure Water Pumping Station York31													
354.40	354.40	Structure	1968	1968				16,020.00	HWW-115	64	762	11.906	190,734	1.000	190,734
371.20	371.20	Process Equipment	1968	1968				17,340.00	HWW-19	81	1436	17.728	307,404	1.000	307,404
371.20	371.20	Pressurization Water Pump	2002	2002				9,456.00	HWW-19	529	1436	2.715	25,673	1.000	25,673
371.20	371.20	Pressurization Water Pump	2003	2003				9,456.00	HWW-19	543.3	1436	2.643	24,992	1.000	24,992
354.40	354.40	Piping	1968	1968				3,840.00	HWW-115	64	762	11.906	45,719	1.000	45,719
		Subtotal: WWTP Pressure Water Pumping Station York31						**56,112.00**					**594,522**		**594,522**
		WWTP Chlorine Building (Blower Building) York 32													
354.40	354.40	Structure	1954	1954				18,019.20	HWW-115	41	762	18.585	334,887	1.000	334,887
354.40	354.40	Structure	1981	1981				5,689.20	HWW-115	191	762	3.990	22,700	1.000	22,700
354.40	354.40	Structure	1991	1991				372,635.41	HWW-115	274	762	2.781	1,036,299	1.000	1,036,299
354.40	354.40	Electrical Wiring	1991	1991				28,287.60	HWW-115	274	762	2.781	78,668	1.000	78,668
354.40	354.40	Electrical Equipment	1991	1991				20,553.80	HWW-115	274	762	2.781	57,160	1.000	57,160
354.40	354.40	Structure	2011	2011				77,805.60	HWW-115	583.5	762	1.306	101,614	1.000	101,614
380.20	380.00	Process Equipment	2012	2012				185,431.20	HWW-117	753	1075	1.428	264,796	1.000	264,796
354.40	354.40	Piping	2012	2012				15,600.00	HWW-115	603.8	762	1.262	19,687	1.000	19,687
354.40	354.40	Structure	2012	2012				78,600.00	HWW-115	603.8	762	1.262	99,193	1.000	99,193
354.40	354.40	Electrical Wiring	2012	2012				36,204.00	HWW-115	603.8	762	1.262	45,689	1.000	45,689
		Subtotal: WWTP Chlorine Building (Blower Building) York 32						**638,825.61**					**2,060,693**		**2,060,693**
		WWTP Digester Bldg Dig #1, #2, & #3 York 33													
354.40	354.40	Structure	1954	1954				350,980.80	HWW-115	41	762	18.585	6,522,978	1.000	6,522,978
354.40	354.40	Structure	1990	1990				281,179.51	HWW-115	271	762	2.812	790,677	1.000	790,677
354.40	354.40	Structure	1981	1981				11,935.20	HWW-115	191	762	3.990	47,621	1.000	47,621

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As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								DC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cost(10) & (5)	Cost Indices Lookup Cost(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
380.16	380.00	Process Equipment	1990	1990				788,419.22	HWW-117	328	1075	3.277	2,583,650	1.000	2,583,650
354.40	354.40	Electrical Wiring	1981	1981				10,846.80	HWW-115	191	762	3.990	43,279	1.000	43,279
354.40	354.40	Electrical Equipment	1981	1981				23,240.40	HWW-115	191	762	3.990	92,729	1.000	92,729
354.40	354.40	Electrical Equipment	1990	1990				56,600.24	HWW-115	271	762	2.812	159,160	1.000	159,160
354.40	354.40	Piping	1995	1995				36,398.00	HWW-115	316	762	2.411	87,751	1.000	87,751
364.00	364.00	Sludge Flow Meter	2001	2001				8,496.00	HWW-140	206.3	485	2.351	19,974	1.000	19,974
354.40	354.40	Structure	2003	2003				8,005.20	HWW-115	393.5	762	1.936	15,498	1.000	15,498
380.16	380.00	Process Equipment	2003	2003				212,199.60	HWW-117	460	1075	2.337	495,910	1.000	495,910
354.40	354.40	Piping	2003	2003				210,556.80	HWW-115	393.5	762	1.936	407,638	1.000	407,638
354.40	354.40	Electrical Wiring	2003	2003				58,653.60	HWW-115	393.5	762	1.936	113,553	1.000	113,553
354.40	354.40	Electrical Equipment	2003	2003				42,044.40	HWW-115	393.5	762	1.936	81,398	1.000	81,398
354.40	354.40	Structure	2008	2008				913,863.60	HWW-115	538.3	762	1.416	1,294,031	1.000	1,294,031
380.16	380.00	Sludge Transfer Pump	2009	2009				52,483.20	HWW-117	672.5	1075	1.599	83,921	1.000	83,921
380.16	380.00	Digester Recycle pump	2009	2009				52,483.20	HWW-117	672.5	1075	1.599	83,921	1.000	83,921
380.16	380.00	Digester 3 Transfer Pump Piping	2009	2009				63,000.00	HWW-117	672.5	1075	1.599	100,737	1.000	100,737
380.16	380.00	Digester 3 Sludge Recycle Piping	2009	2009				34,800.00	HWW-117	672.5	1075	1.599	55,645	1.000	55,645
380.16	380.00	Digester 3 Rehab	2009	2009				252,000.00	HWW-117	672.5	1075	1.599	402,948	1.000	402,948
380.16	380.00	Digester Mixing System	2009	2009				96,480.00	HWW-117	672.5	1075	1.599	154,272	1.000	154,272
380.16	380.00	Process Equipment	2010	2010				210,453.60	HWW-117	694.5	1075	1.548	325,782	1.000	325,782
354.40	354.40	Piping	2010	2010				724,137.60	HWW-115	559.8	762	1.361	985,551	1.000	985,551
354.40	354.40	Structure	2010	2010				621,210.00	HWW-115	559.8	762	1.361	845,467	1.000	845,467
354.40	354.40	Electrical Wiring	2010	2010				206,110.80	HWW-115	559.8	762	1.361	280,517	1.000	280,517
354.40	354.40	Electrical Equipment	2010	2010				29,388.00	HWW-115	559.8	762	1.361	39,997	1.000	39,997
354.40	354.40	HVAC Piping/ductwork	2010	2010				86,912.40	HWW-115	559.8	762	1.361	118,288	1.000	118,288
380.16	380.00	Dig. 2 Vaughan Pump Rehab	2013	2013				18,740.40	HWW-117	780.5	1075	1.377	25,806	1.000	25,806
354.40	354.40	Valve	2015	2015				28,400.00	HWW-115	847.3	762	1.177	33,427	1.000	33,427
364.00	364.00	Five Digester Biogas Flow Meters	2015	2015				34,000.00	HWW-140	409.8	485	1.210	41,140	1.000	41,140
380.00	380.00	Digester and Sludge Valves	2014	2014				93,320.00	HWW-117	814.5	1075	1.320	123,182	1.000	123,182
		Subtotal WWTP Digester Bldg Dig #1, #2, & #3 York 33						**5,617,336.57**					**16,456,448**		**16,456,448**
		WWTP Ash Lagoons York 34													
354.40	354.40	Structure	1981	1981				113,677.60	HWW-115	191	762	3.990	454,372	1.000	454,372
380.80	380.00	Process Equipment	1981	1981				78,314.40	HWW-117	223	1075	4.821	377,554	1.000	377,554
354.40	354.40	Piping	1981	1981				3,560.00	HWW-115	191	762	3.990	13,406	1.000	13,406
		Subtotal WWTP Ash Lagoons York 34						**195,552.00**					**845,332**		**845,332**
		WWTP Filtrate Pump Station York 35													
354.40	354.40	Structure	1981	1981				84,435.60	HWW-115	191	762	3.990	336,898	1.000	336,898
380.00	380.00	Process Equipment	1981	1981				12,504.00	HWW-117	223	1075	4.821	60,282	1.000	60,282
354.40	354.40	Piping	1981	1981				23,577.60	HWW-115	191	762	3.990	94,075	1.000	94,075
354.40	354.40	Electrical Wiring	1981	1981				2,152.40	HWW-115	191	762	3.990	8,588	1.000	8,588
354.40	354.40	Electrical Equipmnet	1981	1981				11,049.60	HWW-115	191	762	3.990	44,088	1.000	44,088
		Subtotal WWTP Filtrate Pump Station York 35						**133,729.20**					**543,971**		**543,971**
		WWTP Filtrate Holding Tanks York 36													
354.40	354.40	Structure	1981	1981				82,527.60	HWW-115	191	762	3.990	329,285	1.000	329,285
380.00	380.00	Process Equipment	1981	1981				362,016.00	HWW-117	223	1075	4.821	1,745,279	1.000	1,745,279
354.40	354.40	Piping	1981	1981				960.00	HWW-115	191	762	3.990	3,830	1.000	3,830
		Subtotal WWTP Filtrate Holding Tanks York 36						**445,503.60**					**2,078,394**		**2,078,394**

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Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmt	AUS Input	City of York Wastewater Assets Detailed Buchart Horn Engineers	Eng Assmt	AUS Input				Eng Assmt	AUS Input	Cost Indices Lookup Cost(10) & (5)	Cost Indices Lookup Cost(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
		WWTP Substation #1 York 37													
354.40	354.40	5000 Amp Bus	2018	2018				59,325.60	HWW-115	704	762	1.082	64,190	1.000	64,190
354.40	354.40	5000 Amp Bus	2016	2016				55,289.54	HWW-115	661.3	762	1.152	63,694	1.000	63,694
		Subtotal WWTP Substation #1 York 37						**114,615.14**					**127,884**		**127,884**
		WWTP Substation #3 York 40													
354.40	354.40	Electrical Wireing	2020	2020				439,802.40	HWW-115	735.3	762	1.036	455,635	1.000	455,635
354.40	354.40	Electrical Equipment	2020	2020				1,036,604.40	HWW-115	735.3	762	1.036	1,073,922	1.000	1,073,922
		Subtotal WWTP Substation #3 York 40						**1,476,406.80**					**1,529,557**		**1,529,557**
		WWTP Substation #4 York 41													
354.40	354.40	Electrical Wiring	1989	1989				19,408.80	HWW-115	265	762	2.875	55,800	1.000	55,800
354.40	354.40	Electrical Equipment	1989	1989				275,292.00	HWW-115	265	762	2.875	791,465	1.000	791,465
354.40	354.40	Electrical Equipment	1996	1996				3,200.40	HWW-115	321	762	2.374	7,598	1.000	7,598
		Subtotal WWTP Substation #4 York 41						**297,901.20**					**854,863**		**854,863**
		WWTP Primary Clarifier & Train 2 Scum Boxes York 42													
354.40	354.40	Structure	1991	1991				46,717.38	HWW-115	274	762	2.781	135,483	1.000	135,483
354.40	354.40	Structure	1981	1981				30,601.20	HWW-115	191	762	3.990	122,099	1.000	122,099
380.15	380.00	Process Equipment	1991	1991				48,574.44	HWW-117	334	1075	3.219	156,361	1.000	156,361
380.15	380.00	Process Equipment	1981	1981				3,240.00	HWW-117	223	1075	4.821	15,620	1.000	15,620
354.40	354.40	Piping	1991	1991				8,666.84	HWW-115	274	762	2.781	24,102	1.000	24,102
354.40	354.40	Piping	1981	1981				6,435.60	HWW-115	191	762	3.990	25,678	1.000	25,678
354.40	354.40	Electrical Wiring	1991	1991				4,030.43	HWW-115	274	762	2.781	11,209	1.000	11,209
354.40	354.40	Electrical Wiring	1981	1981				536.40	HWW-115	191	762	3.990	2,140	1.000	2,140
354.40	354.40	Electrical Equipment	1991	1991				2,556.00	HWW-115	274	762	2.781	7,108	1.000	7,108
354.40	354.40	Electrical Equipment	1981	1981				20,169.60	HWW-115	191	762	3.990	80,477	1.000	80,477
380.15	380.00	Process Equipment	2010	2010				35,640.00	HWW-117	694.5	1075	1.548	55,171	1.000	55,171
354.40	354.40	Piping	2010	2010				1,440.00	HWW-115	559.8	762	1.361	1,960	1.000	1,960
354.40	354.40	Structure	2010	2010				6,984.00	HWW-115	559.8	762	1.361	9,505	1.000	9,505
354.40	354.40	Electrical Wiring	2010	2010				2,628.00	HWW-115	559.8	762	1.361	3,577	1.000	3,577
		Subtotal WWTP Primary Clarifier & Train 2 Scum Boxes York 42						**220,219.69**					**650,490**		**650,490**
		WWTP T3 Remote Scum Box # 1, 2, & 3 York 43													
354.40	354.40	Structure	1988	1988				56,400.00	HWW-115	251	762	3.036	171,230	1.000	171,230
380.15	380.00	Process Equipment	2019	2019				52,800.00	HWW-117	980.5	1075	1.096	57,869	1.000	57,869
354.40	354.40	Piping	1984	1984				13,200.00	HWW-115	251	762	3.036	40,075	1.000	40,075
354.40	354.40	Electrical Wiring	1988	1988				5,348.40	HWW-115	251	762	3.036	16,238	1.000	16,238
354.40	354.40	Electrical Equipment	1988	1988				1,200.00	HWW-115	251	762	3.036	3,643	1.000	3,643
380.15	380.00	Scum Pump	2014	2014				11,815.20	HWW-117	814.5	1075	1.320	15,596	1.000	15,596
		Subtotal WWTP T3 Remote Scum Box # 1, 2, & 3 York 43						**140,763.60**					**304,651**		**304,651**
		WWTP Train 3 Control Scum Box York 44													
354.40	354.40	Structure	1988	1988				15,600.00	HWW-115	251	762	3.036	47,362	1.000	47,362
380.15	380.00	Process Equipment	1988	1988				18,000.00	HWW-117	303	1075	3.548	63,864	1.000	63,864
354.40	354.40	Piping	1988	1988				8,400.00	HWW-115	251	762	3.036	25,502	1.000	25,502
354.40	354.40	Electric Wiring	1988	1988				3,082.80	HWW-115	251	762	3.036	9,359	1.000	9,359
354.40	354.40	Electrict Equipment	1988	1988				1,200.00	HWW-115	251	762	3.036	3,643	1.000	3,643
		Subtotal WWTP Train 3 Control Scum Box York 44						**46,282.80**					**149,730**		**149,730**
		WWTP Train 3 Decant Grinder Pump Station York 45													

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Replacement Cost New (RCN)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15] Reproduction Cost New (RCN) to Replacement Cost New (COR)	[16]
Account	Account	Asset Description	Effective Installation Year: Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OCLD $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Burkett Hess Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	Structure	1988	1988				12,000.00	HWW-115	251	762	3.036	36,432	1.000	36,432
380.00	380.00	Process Equipment	1988	1988				4,800.00	HWW-117	303	1075	3.548	17,030	1.000	17,030
380.00	380.00	Gorman Rupp Pump	2002	2002				4,200.00	HWW-117	452	1075	2.378	9,988	1.000	9,988
354.40	354.40	Electrical Wiring	1988	1988				2,677.20	HWW-115	251	762	3.036	8,128	1.000	8,128
354.40	354.40	Electrical Equipment	1988	1988				1,200.00	HWW-115	251	762	3.036	3,643	1.000	3,643
		Subtotal WWTP Train 3 Decant Grinder Pump Station York 45						**24,877.20**					**75,221**		**75,221**
		WWTP Cascade York 46													
354.40	354.40	Structure	1981	1981				97,988.40	HWW-115	191	762	3.990	390,974	1.000	390,974
380.00	380.00	Process Equipment	1981	1981				8,932.80	HWW-117	223	1075	4.821	43,065	1.000	43,065
354.40	354.40	Piping	1981	1981				16,326.00	HWW-115	191	762	3.990	65,141	1.000	65,141
354.40	354.40	Electrical Equipment	1981	1981				2,162.40	HWW-115	191	762	3.990	8,628	1.000	8,628
		Subtotal WWTP Cascade York 46						**125,409.60**					**507,808**		**507,808**
		WWTP Train 2 Effluent Pumping Station York 47													
354.40	354.40	Structure	1990	1990				289,792.80	HWW-115	271	762	2.812	814,897	1.000	814,897
380.00	380.00	Process Equipment	2019	2019				689,754.80	HWW-117	980.5	1075	1.096	734,051	1.000	734,051
354.40	354.40	Electrical Wiring	1990	1990				7,491.60	HWW-115	271	762	2.812	21,066	1.000	21,066
354.40	354.40	Electrical Equipment	1990	1990				2,931.60	HWW-115	271	762	2.812	8,244	1.000	8,244
380.00	380.00	Process Equipment	2010	2010				168,330.00	HWW-117	694.5	1075	1.548	260,575	1.000	260,575
354.40	354.40	Electrical Wiring	2010	2010				1,620.00	HWW-115	559.8	762	1.361	2,205	1.000	2,205
		Subtotal WWTP Train 2 Effluent Pumping Station York 47						**1,139,920.80**					**1,841,038**		**1,841,038**
		WWTP Train 2 Effluent Bypass Chambers York 48													
354.40	354.40	Structure	1990	1990				5,576.40	HWW-115	271	762	2.812	15,681	1.000	15,681
354.40	354.40	Piping	1990	1990				232.80	HWW-115	271	762	2.812	655	1.000	655
354.40	354.40	Electrical Wiring	1990	1990				2,281.20	HWW-115	271	762	2.812	6,415	1.000	6,415
354.40	354.40	Structure	2003	2003				79,167.60	HWW-115	393.5	762	1.936	153,268	1.000	153,268
		Subtotal WWTP Train 2 Effluent Bypass Chambers York 48						**87,256.00**					**176,019**		**176,019**
		WWTP Ground Water Well #2 York 49													
354.40	354.40	Structure	1954	1954				939.60	HWW-115	41	762	18.585	17,462	1.000	17,462
354.40	354.40	Structure	1991	1991				12,000.00	HWW-115	274	762	2.781	33,372	1.000	33,372
354.40	354.40	Electrical Wiring	1991	1991				2,106.00	HWW-115	274	762	2.781	5,857	1.000	5,857
		Subtotal WWTP Ground Water Well #2 York 49						**15,045.60**					**56,691**		**56,691**
		WWTP Flotation Thickener Bypass Chamber York 50													
354.40	354.40	Structure	1981	1981				8,929.20	HWW-115	191	762	3.990	35,628	1.000	35,628
354.40	354.40	Piping	1981	1981				5,112.00	HWW-115	191	762	3.990	20,397	1.000	20,397
		Subtotal WWTP Flotation Thickener Bypass Chamber York 50						**14,041.20**					**56,025**		**56,025**
		WWTP T-2 CLF Effluent Diversion Chamber York 51													
354.40	354.40	Structure	1981	1981				8,929.20	HWW-115	191	762	3.990	35,628	1.000	35,628
354.40	354.40	Piping	1981	1981				5,112.00	HWW-115	191	762	3.990	20,397	1.000	20,397
		Subtotal WWTP T-2 CLF Effluent Diversion Chamber York 51						**14,041.20**					**56,025**		**56,025**
		WWTP T-1 FCLC Splitter Box (Old Tank 9) York 52													
354.40	354.40	Structure	1981	1981				23,377.20	HWW-115	191	762	3.990	93,275	1.000	93,275
380.15	380.00	Process Equipment	1981	1981				7,320.00	HWW-117	223	1075	4.821	35,290	1.000	35,290
354.40	354.40	Piping	1981	1981				34,502.40	HWW-115	191	762	3.990	137,665	1.000	137,665
		Subtotal WWTP T-1 FCLC Splitter Box (Old Tank 9) York 52						**65,199.60**					**266,230**		**266,230**
		WWTP Train 3 Raw Sewage Flow Meter York 53													
354.40	354.40	Structure	1990	1990				136.80	HWW-115	271	762	2.812	385	1.000	385

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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineering	Eng Assmnt Service Date	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (3)	Cost Indices Lookup Cols(10) & Study YR	Col (13) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description						Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
364.00	354.00	Flow Meter	1990	1990				6,000.00	HWW-140	159	485	3.050	18,300	1.000	18,300
354.40	354.40	Electrical Wiring	1990	1990				758.40	HWW-115	271	762	2.812	2,133	1.000	2,133
		Subtotal WWTP Train 3 Raw Sewage Flow Meter York 53						**6,685.20**					**20,818**		**20,818**
		WWTP Waste Gas Burner Building York 54													
354.40	354.40	Structure	1981	1981				18,951.60	HWW-115	191	762	3.990	75,617	1.000	75,617
354.40	354.40	Piping	1981	1981				17,100.00	HWW-115	191	762	3.990	68,229	1.000	68,229
354.40	354.40	Electrical Wiring	1981	1981				594.00	HWW-115	191	762	3.990	2,370	1.000	2,370
354.40	354.40	Electrical Equipment	1981	1981				4,197.60	HWW-115	191	762	3.990	16,748	1.000	16,748
380.00	380.00	Process Equipment	2004	2004				57,218.40	HWW-117	480	1075	2.240	128,169	1.000	128,169
		Subtotal WWTP Waste Gas Burner Building York 54						**98,061.60**					**291,133**		**291,133**
		WWTP Administration Building York 55													
354.70	354.40	Structure	1989	1989				393,145.56	HWW-115	265	762	2.875	1,130,293	1.000	1,130,293
394.00	394.00	Process Equipment	1989	1989				182,487.70	AUST-17	294	556	1.891	345,084	1.000	345,084
354.70	354.40	Piping	1989	1989				44,852.60	HWW-115	265	762	2.875	128,980	1.000	128,980
354.70	354.40	Electrical Wiring	1989	1989				22,839.53	HWW-115	265	762	2.875	65,664	1.000	65,664
354.70	354.40	Electrical Equipment	1989	1989				7,480.92	HWW-115	265	762	2.875	21,508	1.000	21,508
394.13	394.00	Lab Dishwasher	1999	1999				7,996.80	AUST-17	368	556	1.511	12,083	1.000	12,083
394.18	394.00	Operator's WEStation	2000	2000				35,914.80	AUST-17	372	556	1.495	53,693	1.000	53,693
394.18	394.00	Fume Hood	2004	2004				4,518.00	AUST-17	387	556	1.437	6,492	1.000	6,492
354.70	354.40	Structure (Flooring)	2007	2007				10,368.00	HWW-115	496.3	762	1.535	15,915	1.000	15,915
394.18	394.00	Spectrophoto (AA)	2007	2007				70,920.00	AUST-17	430	556	1.293	91,700	1.000	91,700
394.18	394.00	Spectrophoto (PO4)	2007	2007				17,262.00	AUST-17	430	556	1.293	22,320	1.000	22,320
394.00	394.00	Process Equipment	2008	2008				28,033.20	AUST-17	445	556	1.249	35,013	1.000	35,013
394.00	394.00	Laboratory Equipment	2009	2009				18,288.00	AUST-17	457	556	1.217	22,256	1.000	22,256
394.00	394.00	Process Equipment	2009	2009				10,800.00	AUST-17	457	556	1.217	13,144	1.000	13,144
354.70	354.40	Piping	2009	2009				1,375.20	HWW-115	543.8	762	1.401	1,927	1.000	1,927
354.70	354.40	Structure	2009	2009				560,232.00	HWW-115	543.8	762	1.401	784,885	1.000	784,885
354.70	354.40	Electrical Wiring	2009	2009				45,952.80	HWW-115	543.8	762	1.401	64,380	1.000	64,380
354.70	354.40	Electrical Equipment	2009	2009				15,270.00	HWW-115	543.8	762	1.401	21,393	1.000	21,393
354.70	354.40	HVAC Equipment	2009	2009				281,024.40	HWW-115	543.8	762	1.401	393,715	1.000	393,715
354.70	354.40	HVAC Piping/Ductwork	2009	2009				131,853.60	HWW-115	543.8	762	1.401	184,727	1.000	184,727
354.70	354.40	UV Communication Boards (3)	2014	2014				26,796.00	HWW-115	630.8	762	1.208	32,370	1.000	32,370
390.00	390.00	Servers for GE Plant Operation System	2014	2014				19,090.80	AUST-115	279.6	306.6	1.097	20,943	1.000	20,943
390.00	390.00	Pt Server and System Upgrades	2014	2014				27,976.80	AUST-115	279.6	306.6	1.097	30,691	1.000	30,691
390.00	390.00	Pt Server and System Upgrades	2014	2014				13,235.00	AUST-115	279.6	306.6	1.097	14,520	1.000	14,520
394.00	394.00	Kjeltec 8200 Distillation Unit	2014	2014				13,146.00	AUST-17	503	556	1.105	14,526	1.000	14,526
394.00	394.00	Lab Duct Coil	2014	2014				20,376.00	AUST-17	503	556	1.105	22,515	1.000	22,515
394.00	394.00	Supply and Return Line	2014	2014				15,060.00	AUST-17	503	556	1.105	16,641	1.000	16,641
394.00	394.00	Wilo pumps (2)	2014	2014				12,117.60	AUST-17	503	556	1.105	13,390	1.000	13,390
394.00	394.00	Wash Water Pump	2014	2014				6,912.00	AUST-17	503	556	1.105	7,638	1.000	7,638
394.00	394.00	Wilo Pump (1)	2014	2014				15,027.60	AUST-17	503	556	1.105	16,605	1.000	16,605
394.18	394.00	EAM Software	2015	2015				18,720.00	AUST-17	509	556	1.092	20,442	1.000	20,442
394.00	394.00	6 System Workstation	2015	2015				18,092.40	AUST-17	509	556	1.092	19,757	1.000	19,757
394.00	394.00	Fume Hood	2018	2018				17,420.40	AUST-17	532	556	1.045	18,204	1.000	18,204
354.70	354.40	Computer	2016	2016				9,707.80	HWW-115	661.3	762	1.152	11,183	1.000	11,183
354.70	354.40	Computer	2016	2016				9,599.96	HWW-115	661.3	762	1.152	11,059	1.000	11,059

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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail By Durham Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Code(10) & (5)	Cost Indices Lookup Code(10) & Study YR	Col (12) / (11)	Col (3) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
394.00	394.00	Lab Glassware	2016	2016				17,120.40	AUST-17	513	556	1.084	18,559	1.000	18,559
		Subtotal WWTP Administration Building York 55						**2,151,024.87**					**3,704,215**		**3,704,215**
		WWTP Effluent Flow Meter Vault York 56													
354.40	354.40	Structure	1989	1989				15,699.60	HWW-115	265	762	2.875	45,136	1.000	45,136
364.00	364.00	Process Equipment	1989	1989				4,620.00	HWW-140	150	485	3.233	14,936	1.000	14,936
364.00	364.00	Flow Meter	2002	2002				4,620.00	HWW-140	207	485	2.343	10,825	1.000	10,825
		Subtotal WWTP Effluent Flow Meter Vault York 56						**24,939.60**					**70,897**		**70,897**
		WWTP Site York 58													
354.40	354.40	Structure	1981	1981				388,809.60	HWW-115	191	762	3.990	1,551,350	1.000	1,551,350
354.40	354.40	Structure	1991	1991				3,617,826.40	HWW-115	274	762	2.781	10,617,375	1.000	10,617,375
380.00	380.00	Process Equipment	1981	1981				847,623.60	HWW-117	223	1075	4.821	4,086,393	1.000	4,086,393
380.00	380.00	Process Equipment	1991	1991				4,046.08	HWW-117	334	1075	3.219	13,024	1.000	13,024
354.40	354.40	Piping	1991	1991				4,463,065.20	HWW-115	274	762	2.781	12,411,784	1.000	12,411,784
354.40	354.40	Electrical Wiring	1981	1981				359,335.20	HWW-115	191	762	3.990	1,433,747	1.000	1,433,747
354.40	354.40	Electrical Wiring	1991	1991				2,609,763.48	HWW-115	274	762	2.781	7,257,752	1.000	7,257,752
354.40	354.40	Electrical Wiring	2002	2002				36,000.00	HWW-115	388.8	762	1.960	70,560	1.000	70,560
354.40	354.40	Electrical Equipment	1981	1981				60,704.40	HWW-115	191	762	3.990	242,211	1.000	242,211
354.40	354.40	Piping	1989	1989				128,700.00	HWW-115	265	762	2.875	370,013	1.000	370,013
354.40	354.40	Paving	1989	1989				4,853.64	HWW-115	265	762	2.875	13,954	1.000	13,954
354.40	354.40	Electrical Equipment	1991	1991				278,308.80	HWW-115	274	762	2.781	773,977	1.000	773,977
354.40	354.40	Train 3 Forcemain	2001	2001				363,578.40	HWW-115	378	762	2.016	732,974	1.000	732,974
354.40	354.40	Level Sensors	2001	2001				9,570.00	HWW-115	378	762	2.016	19,293	1.000	19,293
354.40	354.40	Structure	2003	2003				57,366.00	HWW-115	393.5	762	1.936	111,061	1.000	111,061
354.40	354.40	Piping	2003	2003				38,514.00	HWW-115	393.5	762	1.936	74,563	1.000	74,563
354.40	354.40	Paving	2003	2003				9,360.00	HWW-115	393.5	762	1.936	18,121	1.000	18,121
380.00	380.00	Equipment	2003	2003				5,640.00	HWW-117	469	1075	2.337	13,181	1.000	13,181
354.40	354.40	Paving	2005	2005				42,006.00	HWW-115	448	762	1.701	71,452	1.000	71,452
354.40	354.40	Structure	2005	2005				10,092.00	HWW-115	448	762	1.701	17,166	1.000	17,166
354.40	354.40	Electric Equip	2005	2005				4,368.00	HWW-115	448	762	1.701	7,430	1.000	7,430
354.40	354.40	Hot Water Piping	2006	2006				58,800.00	HWW-115	466.3	762	1.634	96,079	1.000	96,079
380.00	380.00	Process Equipment	2008	2008				45,423.60	HWW-117	629	1075	1.709	77,629	1.000	77,629
354.40	354.40	Piping	2008	2008				18,000.00	HWW-115	538.3	762	1.416	25,488	1.000	25,488
354.40	354.40	Paving	2008	2008				12,000.00	HWW-115	538.3	762	1.416	16,992	1.000	16,992
394.00	394.00	Isco Samplers	2009	2009				11,904.00	AUST-17	457	556	1.217	14,487	1.000	14,487
354.40	354.40	Piping	2010	2010				150,868.80	HWW-115	558.8	762	1.361	205,332	1.000	205,332
354.40	354.40	Paving	2010	2010				123,598.80	HWW-115	559.8	762	1.361	168,218	1.000	168,218
354.40	354.40	Electrical Wiring	2010	2010				155,920.80	HWW-115	559.8	762	1.361	212,208	1.000	212,208
354.40	354.40	Electrical Equipment	2010	2010				28,720.80	HWW-115	559.8	762	1.361	39,089	1.000	39,089
354.40	354.40	Fencing	2010	2010				52,263.60	HWW-115	559.8	762	1.361	71,131	1.000	71,131
354.40	354.40	Structure	2011	2011				182,442.00	HWW-115	583.5	762	1.306	238,269	1.000	238,269
354.40	354.40	Piping	2011	2011				343,486.80	HWW-115	583.5	762	1.306	448,594	1.000	448,594
354.40	354.40	Paving	2011	2011				94,184.40	HWW-115	583.5	762	1.306	123,005	1.000	123,005
354.40	354.40	Electrical Wiring	2011	2011				645,932.40	HWW-115	583.5	762	1.306	843,588	1.000	843,588
354.40	354.40	Electrical Equipment	2011	2011				1,635,600.00	HWW-115	583.5	762	1.306	2,136,094	1.000	2,136,094
380.00	380.00	Process Piping	2012	2012				43,633.20	HWW-117	753	1075	1.428	62,308	1.000	62,308
354.40	354.40	Paving	2012	2012				10,860.00	HWW-115	603.8	762	1.262	13,705	1.000	13,705

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Pennsylvania American Water Company
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As of April 8, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Stewart Hawn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Code(10) & (5)	Cost Indices Lookup Code(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
354.40	354.40	Electrical Wiring	2012	2012				1,614.00	HWW-115	603.8	762	1.262	2,037	1.000	2,037
354.40	354.40	HD Network Communication Gate	2015	2015				8,892.80	HWW-115	647.3	762	1.177	8,113	1.000	8,113
380.00	380.00	Trash Pump	2015	2015				10,665.60	HWW-117	843.3	1075	1.275	13,599	1.000	13,599
354.40	354.40	Utility Water Heater	2015	2015				17,286.00	HWW-115	647.3	762	1.177	20,346	1.000	20,346
		Subtotal WWTP Site York 58						**17,189,628.40**					**44,743,692**		**44,743,692**
		WWTP Vehicle Storage Building York 59													
354.70	354.40	Structure	1991	1991				276,395.88	HWW-115	274	762	2.781	768,657	1.000	768,657
354.70	354.40	Electrical Wiring	1991	1991				25,850.40	HWW-115	274	762	2.781	71,890	1.000	71,890
380.00	380.00	Process Equip	2005	2005				76,569.60	HWW-117	505.5	1075	2.127	162,864	1.000	162,864
354.70	354.40	Electric Equip	2005	2005				7,800.00	HWW-115	448	762	1.701	13,268	1.000	13,268
354.70	354.40	Electric Wiring	2005	2005				5,061.50	HWW-115	448	762	1.701	8,610	1.000	8,610
354.70	354.40	Piping	2005	2005				1,262.40	HWW-115	448	762	1.701	2,147	1.000	2,147
354.70	354.40	Electrical Wiring	2010	2010				4,357.20	HWW-115	559.8	762	1.361	5,930	1.000	5,930
354.70	354.40	Electrical Equipment	2010	2010				294.00	HWW-115	559.8	762	1.361	400	1.000	400
354.70	354.40	HVAC Equipment	2010	2010				58,924.80	HWW-115	559.8	762	1.361	80,197	1.000	80,197
354.70	354.40	HVAC Piping/Ductwork	2010	2010				59,047.20	HWW-115	559.8	762	1.361	80,363	1.000	80,363
		Subtotal Electrical Equipment						**515,563.08**					**1,194,326**		**1,194,326**
		WWTP Valve Chamber 1-16 York 60													
354.40	354.40	Structure	1981	1981				31,045.20	HWW-115	191	762	3.990	123,870	1.000	123,870
354.40	354.40	Process Equipment	1981	1981				12,210.00	HWW-115	191	762	3.990	48,718	1.000	48,718
354.40	354.40	Piping	1981	1981				5,770.80	HWW-115	191	762	3.990	23,025	1.000	23,025
		Subtotal WWTP Valve Chamber 1-16 York 60						**49,026.00**					**195,613**		**195,613**
		WWTP On-Site Vehicles York 61													
391.50	391.00	Pickup 602	2005	2005				18,531.91	AUST-14	261	310	1.188	22,016	1.000	22,016
391.50	391.00	Dump Truck 624	1986	1986				31,359.53	AUST-14	215	310	1.442	45,220	1.000	45,220
391.50	391.00	Stake Body Truck 639	2011	2011				46,136.65	AUST-14	273	310	1.136	52,411	1.000	52,411
391.50	391.00	Vactor Truck 640	1990	1990				155,455.76	AUST-14	232	310	1.336	207,689	1.000	207,689
391.50	391.00	Knuckle Boom Truck 645	1991	1991				116,385.29	AUST-14	241	310	1.286	149,671	1.000	149,671
391.50	391.00	Ford 3500 647	2000	2000				34,720.84	AUST-14	269	310	1.152	39,998	1.000	39,998
391.80	391.00	Trailer 206	1987	1987				2,273.50	AUST-14	220	310	1.409	3,203	1.000	3,203
391.50	391.00	Ford E-350 212	2002	2002				31,187.46	AUST-14	263	310	1.179	36,782	1.000	36,782
		Subtotal WWTP On-Site Vehicles York 61						**436,060.94**					**556,990**		**556,990**
		Total WWTP						**121,437,327.48**					**302,559,564**		**302,559,564**
		Account 363 - Sanitary Sewer Services Connection													
363.00	363.00	Sanitary Sewer Service Connection - Fireside Sewer Replacement	2019	2019		22.00		81,528.00	HWW-139	687.8	712	1.035	84,381	1.000	84,381
363.00	363.00	Sanitary Sewer Service Connection - 2015 Sewer Improvement	2015	2015		34.00		123,763.20	HWW-139	617.8	712	1.152	142,575	1.000	142,575
363.00	363.00	Sanitary Sewer Service Connection - Arch Street Interceptor	2011	2011		6.00		26,100.00	HWW-139	578.3	712	1.235	32,234	1.000	32,234
363.00	363.00	Sanitary Sewer Service Connection - Northwest Triangle	2009	2009		34.00		82,332.00	HWW-139	536.5	712	1.325	83,315	1.000	83,315
363.00	363.00	Sanitary Sewer Service Connection	2008	2008		7.00		13,206.88	HWW-139	514.3	712	1.384	18,278	1.000	18,278
363.00	363.00	Sanitary Sewer Service Connection	2004	2004		6.00		9,892.31	HWW-139	388.3	712	1.834	17,776	1.000	17,776
363.00	363.00	Sanitary Sewer Service Connection	2003	2003		110.00		167,178.15	HWW-139	367.5	712	1.937	323,824	1.000	323,824
363.00	363.00	Sanitary Sewer Service Connection	2002	2002		19.00		28,203.28	HWW-139	359.8	712	1.979	55,814	1.000	55,814
363.00	363.00	Sanitary Sewer Service Connection - Wills Run	2001	2001		18.00		25,921.99	HWW-139	304	712	2.342	60,709	1.000	60,709
363.00	363.00	Sanitary Sewer Service Connection	1999	1999		23.00		31,639.52	HWW-139	334	712	2.132	67,455	1.000	67,455
363.00	363.00	Sanitary Sewer Service Connection	1998	1998		15.00		20,161.09	HWW-139	330	712	2.158	43,508	1.000	43,508

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Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detailed Subset from Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices, Lookup Cost(10) & (5)	Cost Indices Lookup Cost(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
363.00	363.00	Sanitary Sewer Service Connection	1996	1996		7.00		8,931.73	HWW-139	321	712	2.218	19,811	1.000	19,811
363.00	363.00	Sanitary Sewer Service Connection	1993	1993		25.00		29,571.88	HWW-139	292	712	2.438	72,096	1.000	72,096
363.00	363.00	Sanitary Sewer Service Connection	1992	1992		36.00		40,744.48	HWW-139	283	712	2.516	102,513	1.000	102,513
363.00	363.00	Sanitary Sewer Service Connection	1989	1989		2.00		2,085.57	HWW-139	258	712	2.760	5,784	1.000	5,784
363.00	363.00	Sanitary Sewer Service Connection	1988	1988		5.00		5,129.95	HWW-139	245	712	2.906	14,908	1.000	14,908
363.00	363.00	Sanitary Sewer Service Connection	1987	1987		4.00		4,001.34	HWW-139	230	712	3.096	12,388	1.000	12,388
363.00	363.00	Sanitary Sewer Service Connection - Tyler Run	1983	1983		14.00		12,922.80	HWW-139	207	712	3.440	44,454	1.000	44,454
363.00	363.00	Sanitary Sewer Service Connection - Codorus Creek	1983	1983		134.00		123,701.03	HWW-139	207	712	3.440	425,532	1.000	425,532
363.00	363.00	Sanitary Sewer Service Connection	1980	1980		236.00		173,442.63	HWW-139	175	712	4.069	705,738	1.000	705,738
363.00	363.00	Sanitary Sewer Service Connection	1979	1979		4.00		2,727.20	HWW-139	160	712	4.450	12,136	1.000	12,136
363.00	363.00	Sanitary Sewer Service Connection	1971	1971		29.00		7,178.98	HWW-139	89	712	8.000	57,432	1.000	57,432
363.00	363.00	Sanitary Sewer Service Connection	1965	1965		12.00		2,645.46	HWW-139	58	712	12.276	32,476	1.000	32,476
363.00	363.00	Sanitary Sewer Service Connection	1963	1963		19.00		3,886.69	HWW-139	53	712	13.434	52,214	1.000	52,214
363.00	363.00	Sanitary Sewer Service Connection	1962	1962		35.00		6,929.24	HWW-139	51	712	13.961	96,739	1.000	96,739
363.00	363.00	Sanitary Sewer Service Connection	1961	1961		27.00		5,192.16	HWW-139	50	712	14.240	73,936	1.000	73,936
363.00	363.00	Sanitary Sewer Service Connection	1958	1958		39.00		6,720.59	HWW-139	44	712	16.182	108,753	1.000	108,753
363.00	363.00	Sanitary Sewer Service Connection	1957	1957		47.00		7,725.70	HWW-139	41	712	17.366	134,165	1.000	134,165
363.00	363.00	Sanitary Sewer Service Connection	1956	1956		53.00		8,326.80	HWW-139	39	712	18.256	152,016	1.000	152,016
363.00	363.00	Sanitary Sewer Service Connection	1955	1955		92.00		13,785.83	HWW-139	36	712	19.778	272,656	1.000	272,656
363.00	363.00	Sanitary Sewer Service Connection	1954	1954		280.00		37,070.99	HWW-139	35	712	20.343	754,135	1.000	754,135
363.00	363.00	Sanitary Sewer Service Connection	1953	1953		1,220.00		166,192.81	HWW-139	33	712	21.576	3,585,776	1.000	3,585,776
363.00	363.00	Sanitary Sewer Service Connection	1952	1952		9.00		1,162.67	HWW-139	31	712	22.968	26,704	1.000	26,704
363.00	363.00	Sanitary Sewer Service Connection	1951	1951		17.00		2,095.80	HWW-139	29	712	24.552	51,456	1.000	51,456
363.00	363.00	Sanitary Sewer Service Connection	1950	1950		32.00		3,705.28	HWW-139	28	712	25.429	94,222	1.000	94,222
363.00	363.00	Sanitary Sewer Service Connection	1949	1949		9.00		974.68	HWW-139	27	712	26.370	25,702	1.000	25,702
363.00	363.00	Sanitary Sewer Service Connection	1948	1948		8.00		837.32	HWW-139	25	712	28.480	23,847	1.000	23,847
363.00	363.00	Sanitary Sewer Service Connection	1947	1947		93.00		8,720.35	HWW-139	22	712	32.364	282,225	1.000	282,225
363.00	363.00	Sanitary Sewer Service Connection	1946	1946		129.00		9,426.67	HWW-139	19	712	37.474	353,255	1.000	353,255
363.00	363.00	Sanitary Sewer Service Connection	1945	1945		29.00		2,027.92	HWW-139	17	712	41.882	84,933	1.000	84,933
363.00	363.00	Sanitary Sewer Service Connection	1944	1944		37.00		2,511.74	HWW-139	17	712	41.882	105,197	1.000	105,197
363.00	363.00	Sanitary Sewer Service Connection	1943	1943		6,138.00		535,817.42	HWW-139	16	712	44.500	23,843,875	1.000	23,843,875
363.00	363.00	Sanitary Sewer Service Connection	1942	1942		117.00		7,331.55	HWW-139	16	712	44.500	326,254	1.000	326,254
363.00	363.00	Sanitary Sewer Service Connection	1941	1941		10.00		585.76	HWW-139	15	712	47.467	27,804	1.000	27,804
363.00	363.00	Sanitary Sewer Service Connection	1940	1940		50.00		2,747.18	HWW-139	14	712	50.857	139,713	1.000	139,713
363.00	363.00	Sanitary Sewer Service Connection	1939	1939		131.00		7,019.15	HWW-139	14	712	50.857	356,973	1.000	356,973
363.00	363.00	Sanitary Sewer Service Connection	1938	1938		180.00		10,160.44	HWW-139	14	712	50.857	517,747	1.000	517,747
363.00	363.00	Sanitary Sewer Service Connection	1937	1937		180.00		9,603.76	HWW-139	14	712	50.857	488,418	1.000	488,418
363.00	363.00	Sanitary Sewer Service Connection	1936	1936		307.00		18,567.73	HWW-139	13	712	54.769	1,016,936	1.000	1,016,936
363.00	363.00	Sanitary Sewer Service Connection	1935	1935		131.00		5,829.46	HWW-139	13	712	54.769	319,274	1.000	319,274
363.00	363.00	Sanitary Sewer Service Connection	1934	1934		32.00		1,438.52	HWW-139	12	712	59.333	85,352	1.000	85,352
363.00	363.00	Sanitary Sewer Service Connection	1933	1933		9.00		347.37	HWW-139	11	712	64.727	22,484	1.000	22,484
363.00	363.00	Sanitary Sewer Service Connection	1932	1932		166.00		5,917.10	HWW-139	13	712	54.769	324,074	1.000	324,074
363.00	363.00	Sanitary Sewer Service Connection	1931	1931		348.00		14,300.75	HWW-139	14	712	50.857	727,293	1.000	727,293
363.00	363.00	Sanitary Sewer Service Connection	1930	1930		518.00		23,874.10	HWW-139	14	712	50.857	1,214,165	1.000	1,214,165
363.00	363.00	Sanitary Sewer Service Connection	1928	1928		83.00		3,900.76	HWW-139	13	712	54.769	213,641	1.000	213,641
363.00	363.00	Sanitary Sewer Service Connection	1927	1927		218.00		10,195.88	HWW-139	13	712	54.769	558,418	1.000	558,418

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buckart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col [14] * [15]
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
363.00	363.00	Sanitary Sewer Service Connection	1926	1926		726.00		34,379.21	HWW-139	13	712	54.769	1,882,915	1.000	1,882,915
363.00	363.00	Sanitary Sewer Service Connection	1925	1925		1,976.00		50,662.92	HWW-139	13	712	54.769	2,774,757	1.000	2,774,757
363.00	363.00	Sanitary Sewer Service Connection	1924	1924		27.00		1,317.96	HWW-139	13	712	54.769	72,183	1.000	72,183
363.00	363.00	Sanitary Sewer Service Connection	1922	1922		6.00		237.03	HWW-139	12	712	59.333	14,064	1.000	14,064
363.00	363.00	Sanitary Sewer Service Connection	1921	1921		2.00		91.72	HWW-139	13	712	54.769	5,023	1.000	5,023
363.00	363.00	Sanitary Sewer Service Connection	1919	1919		13.00		584.40	HWW-139	11	712	64.727	37,826	1.000	37,826
363.00	363.00	Sanitary Sewer Service Connection	1917	1917		62.00		2,547.84	HWW-139	9	712	79.111	201,562	1.000	201,562
363.00	363.00	Sanitary Sewer Service Connection	1916	1916		17.00		501.75	HWW-139	6	712	118.667	59,542	1.000	59,542
363.00	363.00	Sanitary Sewer Service Connection	1912	1904		59.00		1,299.35	HWW-139	6	712	118.667	154,190	1.000	154,190
		Subtotal Account 363 - Sanitary Sewer Services Connection				**16,649.00**		**2,038,881.94**					**44,097,551**		**44,097,551**
		Account 361 - Collection Sewers - Manholes													
361.70	361.70	Manholes - Manchester Interceptor	2019	2019		9.00		70,200.00	HWW-145	555.8	586.4	1.055	74,081	1.000	74,081
361.70	361.70	Manholes - Fireside Sewer Replacement	2018	2018		11.00		59,820.00	HWW-145	548.3	586.4	1.069	63,948	1.000	63,948
361.70	361.70	Manholes - 2015 Sewer Improvements	2015	2015		5.00		28,317.60	HWW-145	519.2	586.4	1.129	31,971	1.000	31,971
361.70	361.70	Manholes - Poorhouse Run Interceptor	2011	2011		8.00		484,440.00	HWW-145	483.7	586.4	1.212	587,141	1.000	587,141
361.70	361.70	Manholes - Arch Street Interceptor	2011	2011		3.00		37,260.00	HWW-145	483.7	586.4	1.212	45,159	1.000	45,159
361.70	361.70	Manholes - Willis Run Siphon Chambers	2011	2011		2.00		635,400.00	HWW-145	483.7	586.4	1.212	770,105	1.000	770,105
361.70	361.70	Manholes - Northwest Triangle	2009	2009		10.00		57,300.00	HWW-145	489.1	586.4	1.250	71,625	1.000	71,625
361.70	361.70	Manholes	2008	2008		4.00		58,316.09	HWW-145	459.3	586.4	1.277	74,470	1.000	74,470
361.70	361.70	Manholes	2004	2004		3.00		37,447.56	HWW-145	375.6	586.4	1.561	58,456	1.000	58,456
361.70	361.70	Manholes	2003	2003		24.00		281,854.09	HWW-145	377.9	586.4	1.552	437,438	1.000	437,438
361.70	361.70	Manholes	2002	2002		14.00		160,583.28	HWW-145	371	586.4	1.581	253,882	1.000	253,882
361.70	361.70	Manholes - Roosevelt Ave Willis Run	2001	2001		4.00		44,512.51	HWW-145	355.8	586.4	1.648	73,357	1.000	73,357
361.70	361.70	Manholes	1999	1999		8.00		85,039.03	HWW-145	333.4	586.4	1.759	149,584	1.000	149,584
361.70	361.70	Manholes	1998	1998		13.00		135,018.24	HWW-145	326.7	586.4	1.795	242,358	1.000	242,358
361.70	361.70	Manholes	1996	1996		10.00		98,597.00	HWW-145	310.5	586.4	1.889	186,250	1.000	186,250
361.70	361.70	Manholes - Upper Codorus	1993	1993		1.00		9,140.40	HWW-145	282.2	586.4	2.078	18,994	1.000	18,994
361.70	361.70	Manholes	1993	1993		8.00		73,123.18	HWW-145	282.2	586.4	2.078	151,950	1.000	151,950
361.70	361.70	Manholes - Upper Codorus	1992	1992		21.00		183,658.84	HWW-145	276	586.4	2.125	390,275	1.000	390,275
361.70	361.70	Manholes - Upper Codorus	1992	1992		5.00		43,728.30	HWW-145	276	586.4	2.125	92,923	1.000	92,923
361.70	361.70	Manholes	1989	1989		2.00		16,193.07	HWW-145	254.4	586.4	2.305	37,325	1.000	37,325
361.70	361.70	Manholes	1988	1988		5.00		39,640.56	HWW-145	260.6	586.4	2.250	89,191	1.000	89,191
361.70	361.70	Manholes	1987	1987		2.00		15,459.73	HWW-145	255.6	586.4	2.294	35,465	1.000	35,465
361.70	361.70	Manholes - Tyler Run	1983	1983		31.00		221,134.48	HWW-145	229.5	586.4	2.555	564,999	1.000	564,999
361.70	361.70	Manholes - Codorus Creek	1983	1983		57.00		406,602.10	HWW-145	229.5	586.4	2.555	1,038,868	1.000	1,038,868
361.70	361.70	Manholes	1980	1980		127.00		721,230.04	HWW-145	185.7	586.4	3.158	2,277,644	1.000	2,277,644
361.70	361.70	Manholes	1979	1979		4.00		21,073.79	HWW-145	166	586.4	3.533	74,454	1.000	74,454
361.70	361.70	Manholes	1971	1971		2.00		5,547.40	HWW-145	90.4	586.4	6.487	35,986	1.000	35,986
361.70	361.70	Manholes	1965	1965		4.00		6,814.07	HWW-145	63	586.4	9.308	63,425	1.000	63,425
361.70	361.70	Manholes	1963	1963		10.00		15,807.10	HWW-145	61.8	586.4	9.489	149,994	1.000	149,994
361.70	361.70	Manholes	1962	1962		11.00		16,828.15	HWW-145	61.9	586.4	9.473	159,413	1.000	159,413
361.70	361.70	Manholes	1961	1961		19.00		28,233.48	HWW-145	61.4	586.4	9.550	269,630	1.000	269,630
361.70	361.70	Manholes	1958	1958		15.00		19,973.79	HWW-145	58.4	586.4	10.041	200,557	1.000	200,557
361.70	361.70	Manholes	1957	1957		10.00		12,701.82	HWW-145	55.6	586.4	10.547	133,966	1.000	133,966
361.70	361.70	Manholes	1956	1956		20.00		24,280.83	HWW-145	52.8	586.4	11.148	270,663	1.000	270,663
361.70	361.70	Manholes	1955	1955		34.00		39,368.62	HWW-145	49.6	586.4	11.823	465,455	1.000	465,455

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15) Reproduction Cost New (RCN) to Replacement Cost New (COR)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)		Replacement Cost New (COR)
								OCI $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Beckum Hunt Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cols(10) & (5)	Cost Indices Lookup Cols(10) & Study YR	Col (12) / (11)	Col (9) * (12)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
361.70	361.70	Manholes	1954	1954		89.00		98,056.65	HWW-145	47.3	586.4	12.397	1,215,606	1.000	1,215,606
361.70	361.70	Manholes	1953	1953		187.00		196,643.12	HWW-145	44.6	586.4	13.148	2,588,093	1.000	2,588,093
361.70	361.70	Manholes	1952	1952		4.00		3,993.00	HWW-145	43.2	586.4	13.574	54,201	1.000	54,201
361.70	361.70	Manholes	1951	1951		8.00		7,621.09	HWW-145	41.3	586.4	14.199	108,212	1.000	108,212
361.70	361.70	Manholes	1950	1950		16.00		14,315.86	HWW-145	39.9	586.4	14.697	210,400	1.000	210,400
361.70	361.70	Manholes	1949	1949		3.00		2,510.54	HWW-145	38.7	586.4	15.152	38,040	1.000	38,040
361.70	361.70	Manholes	1948	1948		4.00		3,235.10	HWW-145	37.3	586.4	15.721	50,858	1.000	50,858
361.70	361.70	Manholes	1947	1947		21.00		15,215.87	HWW-145	33.7	586.4	17.401	264,771	1.000	264,771
361.70	361.70	Manholes	1946	1946		27.00		16,389.56	HWW-145	30.4	586.4	19.289	316,138	1.000	316,138
361.70	361.70	Manholes	1945	1945		5.00		2,701.77	HWW-145	27.4	586.4	21.401	57,821	1.000	57,821
361.70	361.70	Manholes	1944	1944		8.00		3,147.38	HWW-145	27	586.4	21.719	66,356	1.000	66,356
361.70	361.70	Manholes	1943	1943		1,066.00		542,353.68	HWW-145	27	586.4	21.719	11,779,380	1.000	11,779,380
361.70	361.70	Manholes	1942	1942		33.00		15,979.03	HWW-145	25.9	586.4	22.641	361,781	1.000	361,781
361.70	361.70	Manholes	1941	1941		3.00		1,357.90	HWW-145	24.9	586.4	23.550	31,979	1.000	31,979
361.70	361.70	Manholes	1940	1940		16.00		7,642.14	HWW-145	24.3	586.4	24.132	184,420	1.000	184,420
361.70	361.70	Manholes	1939	1939		33.00		13,563.23	HWW-145	24.6	586.4	23.837	325,690	1.000	325,690
361.70	361.70	Manholes	1938	1938		43.00		17,803.60	HWW-145	24.6	586.4	23.837	424,384	1.000	424,384
361.70	361.70	Manholes	1937	1937		43.00		17,728.16	HWW-145	24.6	586.4	23.837	422,586	1.000	422,586
361.70	361.70	Manholes	1936	1936		57.00		24,214.16	HWW-145	23.2	586.4	25.276	612,037	1.000	612,037
361.70	361.70	Manholes	1935	1935		19.00		6,533.37	HWW-145	23.2	586.4	25.276	165,137	1.000	165,137
361.70	361.70	Manholes	1934	1934		7.00		2,431.59	HWW-145	22.5	586.4	26.062	63,372	1.000	63,372
361.70	361.70	Manholes	1933	1933		3.00		894.74	HWW-145	21.2	586.4	27.660	24,749	1.000	24,749
361.70	361.70	Manholes	1932	1932		12.00		3,305.28	HWW-145	22.6	586.4	25.947	85,762	1.000	85,762
361.70	361.70	Manholes	1931	1931		56.00		18,417.54	HWW-145	23.4	586.4	25.060	461,546	1.000	461,546
361.70	361.70	Manholes	1930	1930		80.00		28,491.38	HWW-145	23.8	586.4	24.636	699,064	1.000	699,064
361.70	361.70	Manholes	1928	1928		15.00		5,447.40	HWW-145	23.7	586.4	24.743	134,785	1.000	134,785
361.70	361.70	Manholes	1927	1927		22.00		7,950.92	HWW-145	23.9	586.4	24.536	195,084	1.000	195,084
361.70	361.70	Manholes	1926	1926		101.00		36,856.33	HWW-145	23.7	586.4	24.743	911,936	1.000	911,936
361.70	361.70	Manholes	1925	1925		100.00		36,315.96	HWW-145	23.9	586.4	24.536	891,049	1.000	891,049
361.70	361.70	Manholes	1924	1924		2.00		754.39	HWW-145	23.7	586.4	24.743	18,666	1.000	18,666
361.70	361.70	Manholes	1921	1921		3.00		1,063.16	HWW-145	24.1	586.4	24.332	25,869	1.000	25,869
361.70	361.70	Manholes	1917	1917		9.00		2,857.91	HWW-145	21.4	586.4	27.402	78,312	1.000	78,312
361.70	361.70	Manholes	1916	1916		2.00		456.14	HWW-145	20.5	586.4	28.605	13,048	1.000	13,048
361.70	361.70	Manholes	1912	1912		2.00		340.35	HWW-145	18.6	586.4	31.527	10,730	1.000	10,730
		Subtotal Account 361 - Collection Sewers - Manholes				**2,627.00**		**5,351,533.58**					**32,534,589**		**32,534,589**
		Account 361 - Collection Sewers - Pipes													
361.00	361.00	Sanitary Sewers - Fireside Sewer Replacement	2019	2019	10	1,389.00		336,231.65	HWW-144	601.5	674.5	1.121	376,916	1.000	376,916
361.00	361.00	Sanitary Sewers - Fireside Sewer Replacement	2019	2019	12	545.00		131,926.75	HWW-144	601.5	674.5	1.121	147,890	1.000	147,890
361.00	361.00	Sanitary Sewers - Manchester Interceptor	2019	2019	36	1,675.00		3,005,108.40	HWW-144	601.5	674.5	1.121	3,368,727	1.000	3,368,727
361.00	361.00	Sanitary Sewer - 2015 Sewer Improvements	2015	2015	8	540.00		265,807.20	HWW-144	562.2	674.5	1.200	318,969	1.000	318,969
361.00	361.00	Sanitary Sewers - Poorhouse Run Replacement	2011	2011	27	70.00		275,730.10	HWW-144	540	674.5	1.249	344,387	1.000	344,387
361.00	361.00	Sanitary Sewers - Arch Street Interceptor	2011	2011	30	882.00		375,426.00	HWW-144	540	674.5	1.249	468,907	1.000	468,907
361.00	361.00	Sanitary Sewers - Poorhouse Run Replacement	2011	2011	36	302.00		1,169,578.41	HWW-144	540	674.5	1.249	1,485,783	1.000	1,485,783
361.00	361.00	Sanitary Sewers - Poorhouse Run Replacement	2011	2011	48	25.00		98,475.03	HWW-144	540	674.5	1.249	122,995	1.000	122,995
361.00	361.00	Sanitary Sewers - Poorhouse Run Replacement	2011	2011	60	44.00		173,316.06	HWW-144	540	674.5	1.249	216,472	1.000	216,472
361.00	361.00	Sanitary Sewer - North West Triangle	2009	2009	18	801.00		267,441.58	HWW-144	524.3	674.5	1.286	343,930	1.000	343,930

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Costs(10) & (3)	Cost Indices Lookup Costs(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
361.00	361.00	Sanitary Sewer - North West Triangle	2009	2009	24	1,290.00		430,711.17	HWW-144	524.3	674.5	1.286	553,895	1.000	553,895
361.00	361.00	Sanitary Sewer - North West Triangle	2009	2009	27	428.00		142,234.85	HWW-144	524.3	674.5	1.286	182,914	1.000	182,914
361.00	361.00	Sanitary Sewers	2004	2004	6	494.77		17,801.50	HWW-144	362.6	674.5	1.860	33,111	1.000	33,111
361.00	361.00	Sanitary Sewers	2003	2003	6	165.66		5,607.58	HWW-144	341	674.5	1.978	11,092	1.000	11,092
361.00	361.00	Sanitary Sewers - Arch Street Interceptor	2003	2003	18	563.70		53,350.26	HWW-144	341	674.5	1.978	105,527	1.000	105,527
361.00	361.00	Sanitary Sewers - Arch Street Interceptor	2003	2003	24	1,387.78		200,389.44	HWW-144	341	674.5	1.978	396,331	1.000	396,331
361.00	361.00	Sanitary Sewers - Arch Street Interceptor	2003	2003	27	1,289.62		285,804.80	HWW-144	341	674.5	1.978	564,926	1.000	564,926
361.00	361.00	Sanitary Sewers - Arch Street Interceptor	2003	2003	30	1,376.15		289,954.21	HWW-144	341	674.5	1.978	573,529	1.000	573,529
361.00	361.00	Sanitary Sewers	2002	2002	6	527.25		17,431.44	HWW-144	338.8	674.5	1.991	34,706	1.000	34,706
361.00	361.00	Sanitary Sewers	2002	2002	15	767.89		53,365.70	HWW-144	338.8	674.5	1.991	106,251	1.000	106,251
361.00	361.00	Sanitary Sewers	2002	2002	18	1,054.49		97,473.18	HWW-144	338.8	674.5	1.991	194,069	1.000	194,069
361.00	361.00	Sanitary Sewers - Richland Ave Point Repair	2002	2002	24	25.00		20,900.00	HWW-144	338.8	674.5	1.991	41,612	1.000	41,612
361.00	361.00	Sanitary Sewers - Roosevelt Ave Wills Run	2001	2001	16	186.00		88,531.53	HWW-144	327.2	674.5	2.061	182,463	1.000	182,463
361.00	361.00	Sanitary Sewers - Roosevelt Ave Wills Run	2001	2001	18	304.07		163,149.94	HWW-144	327.2	674.5	2.061	336,252	1.000	336,252
361.00	361.00	Sanitary Sewers - Roosevelt Ave Wills Run	2001	2001	27	446.87		239,767.94	HWW-144	327.2	674.5	2.061	494,162	1.000	494,162
361.00	361.00	Sanitary Sewers	1999	1999	8	736.84		22,576.01	HWW-144	299.7	674.5	2.251	50,819	1.000	50,819
361.00	361.00	Sanitary Sewers	1999	1999	10	448.09		18,252.54	HWW-144	299.7	674.5	2.251	41,086	1.000	41,086
361.00	361.00	Sanitary Sewers	1998	1998	8	30.91		925.46	HWW-144	295	674.5	2.286	2,116	1.000	2,116
361.00	361.00	Sanitary Sewers	1998	1998	12	30.91		1,529.83	HWW-144	295	674.5	2.286	3,497	1.000	3,497
361.00	361.00	Sanitary Sewers	1998	1998	18	1,263.35		105,741.13	HWW-144	295	674.5	2.286	241,724	1.000	241,724
361.00	361.00	Sanitary Sewers	1996	1996	10	2,295.55		86,539.42	HWW-144	284.9	674.5	2.367	204,839	1.000	204,839
361.00	361.00	Sanitary Sewers	1993	1993	8	708.18		18,657.50	HWW-144	264.5	674.5	2.550	47,577	1.000	47,577
361.00	361.00	Sanitary Sewers	1993	1993	16	24.76		1,823.66	HWW-144	264.5	674.5	2.550	4,650	1.000	4,650
361.00	361.00	Sanitary Sewers - Upper Codorus	1993	1993	20	280.95		129,480.00	HWW-144	264.5	674.5	2.550	330,174	1.000	330,174
361.00	361.00	Sanitary Sewers	1993	1993	24	368.39		41,397.13	HWW-144	264.5	674.5	2.550	105,563	1.000	105,563
361.00	361.00	Sanitary Sewers	1993	1993	27	248.77		40,796.31	HWW-144	264.5	674.5	2.550	104,031	1.000	104,031
361.00	361.00	Sanitary Sewers	1992	1992	6	8.40		211.71	HWW-144	253.3	674.5	2.663	564	1.000	564
361.00	361.00	Sanitary Sewers - Upper Codorus	1992	1992	30	1,127.40		725,700.00	HWW-144	253.3	674.5	2.663	1,932,539	1.000	1,932,539
361.00	361.00	Sanitary Sewers - Upper Codorus	1992	1992	42	4,264.66		1,729,864.80	HWW-144	253.3	674.5	2.663	4,606,630	1.000	4,606,630
361.00	361.00	Sanitary Sewers	1989	1989	48	38.50		10,029.94	HWW-144	270.8	674.5	2.491	24,985	1.000	24,985
361.00	361.00	Sanitary Sewers	1988	1988	12	203.91		7,702.54	HWW-144	251.2	674.5	2.685	20,681	1.000	20,681
361.00	361.00	Sanitary Sewers	1988	1988	14	207.00		9,943.07	HWW-144	251.2	674.5	2.685	26,697	1.000	26,697
361.00	361.00	Sanitary Sewers	1988	1988	16	206.85		13,216.03	HWW-144	251.2	674.5	2.685	35,485	1.000	35,485
361.00	361.00	Sanitary Sewers	1988	1988	48	304.33		100,593.41	HWW-144	251.2	674.5	2.685	270,093	1.000	270,093
361.00	361.00	Sanitary Sewers	1987	1987	6	14.00		311.92	HWW-144	217.2	674.5	3.105	969	1.000	969
361.00	361.00	Sanitary Sewers	1983	1983	8	2,462.71		50,635.49	HWW-144	199.6	674.5	3.379	171,097	1.000	171,097
361.00	361.00	Sanitary Sewers	1983	1983	8	2,823.14		58,046.35	HWW-144	199.6	674.5	3.379	196,139	1.000	196,139
361.00	361.00	Sanitary Sewers	1983	1983	15	148.92		6,436.30	HWW-144	199.6	674.5	3.379	21,748	1.000	21,748
361.00	361.00	Sanitary Sewers	1983	1983	18	17.42		1,001.70	HWW-144	199.6	674.5	3.379	3,385	1.000	3,385
361.00	361.00	Sanitary Sewers - Tyler Run	1983	1983	21	1,557.27		445,658.50	HWW-144	199.6	674.5	3.379	1,505,883	1.000	1,505,883
361.00	361.00	Sanitary Sewers - Tyler Run	1983	1983	24	3,828.19		1,095,553.30	HWW-144	199.6	674.5	3.379	3,701,875	1.000	3,701,875
361.00	361.00	Sanitary Sewers	1983	1983	30	34.40		4,402.59	HWW-144	199.6	674.5	3.379	14,876	1.000	14,876
361.00	361.00	Sanitary Sewers - Codorus Creek	1983	1983	48	5,686.02		5,131,377.19	HWW-144	199.6	674.5	3.379	17,338,924	1.000	17,338,924
361.00	361.00	Sanitary Sewers - Codorus Creek	1983	1983	54	1,677.80		1,894,720.03	HWW-144	199.6	674.5	3.379	5,726,459	1.000	5,726,459
361.00	361.00	Sanitary Sewers - Codorus Creek	1983	1983	72	5,174.19		4,569,474.05	HWW-144	199.6	674.5	3.379	15,778,153	1.000	15,778,153
361.00	361.00	Sanitary Sewers	1980	1980	6	1,653.87		27,071.85	HWW-144	173	674.5	3.899	105,553	1.000	105,553

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail by Buchart Horn Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Calc(10) & (5)	Cost Indices Lookup Calc(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
361.00	361.00	Sanitary Sewers	1980	1980	6	9,150.67		149,785.61	HWW-144	173	674.5	3.899	584,014	1.000	584,014
361.00	361.00	Sanitary Sewers	1980	1980	10	682.53		14,386.02	HWW-144	173	674.5	3.899	56,091	1.000	56,091
361.00	361.00	Sanitary Sewers	1980	1980	12	5,815.81		157,357.86	HWW-144	173	674.5	3.899	613,577	1.000	613,577
361.00	361.00	Sanitary Sewers	1980	1980	30	5,376.05		547,752.60	HWW-144	173	674.5	3.899	2,135,687	1.000	2,135,687
361.00	361.00	Sanitary Sewers	1980	1980	36	3,136.21		429,546.92	HWW-144	173	674.5	3.899	1,674,803	1.000	1,674,803
361.00	361.00	Sanitary Sewers	1979	1979	12	478.41		12,009.22	HWW-144	160.5	674.5	4.202	50,463	1.000	50,463
361.00	361.00	Sanitary Sewers	1979	1979	15	122.00		3,894.31	HWW-144	160.5	674.5	4.202	16,364	1.000	16,364
361.00	361.00	Sanitary Sewers	1979	1979	18	223.98		9,509.57	HWW-144	160.5	674.5	4.202	39,959	1.000	39,959
361.00	361.00	Sanitary Sewers	1971	1971	10	218.66		2,319.01	HWW-144	92.5	674.5	7.292	16,910	1.000	16,910
361.00	361.00	Sanitary Sewers	1965	1965	8	725.20		3,560.85	HWW-144	71.4	674.5	9.447	33,639	1.000	33,639
361.00	361.00	Sanitary Sewers	1963	1963	8	380.48		1,733.54	HWW-144	72	674.5	9.368	16,240	1.000	16,240
361.00	361.00	Sanitary Sewers	1963	1963	8	572.83		2,609.93	HWW-144	72	674.5	9.368	24,450	1.000	24,450
361.00	361.00	Sanitary Sewers	1963	1963	12	648.49		4,869.11	HWW-144	72	674.5	9.368	45,614	1.000	45,614
361.00	361.00	Sanitary Sewers	1962	1962	8	2,232.22		9,843.02	HWW-144	70	674.5	9.636	94,847	1.000	94,847
361.00	361.00	Sanitary Sewers	1961	1961	8	2,505.56		10,731.56	HWW-144	69	674.5	9.775	104,901	1.000	104,901
361.00	361.00	Sanitary Sewers	1958	1958	8	3,290.52		12,829.33	HWW-144	63.1	674.5	10.689	134,995	1.000	134,995
361.00	361.00	Sanitary Sewers	1957	1957	8	2,108.74		7,720.33	HWW-144	60.7	674.5	11.112	85,788	1.000	85,788
361.00	361.00	Sanitary Sewers	1956	1956	8	3,064.58		10,794.22	HWW-144	57.9	674.5	11.649	125,742	1.000	125,742
361.00	361.00	Sanitary Sewers	1955	1955	8	4,868.77		16,583.17	HWW-144	54	674.5	12.491	207,140	1.000	207,140
361.00	361.00	Sanitary Sewers	1954	1954	8	15,466.55		49,180.03	HWW-144	52.1	674.5	12.946	636,685	1.000	636,685
361.00	361.00	Sanitary Sewers	1954	1954	10	2,200.32		9,269.08	HWW-144	52.1	674.5	12.946	119,998	1.000	119,998
361.00	361.00	Sanitary Sewers	1953	1953	8	30,360.53		92,116.03	HWW-144	51.3	674.5	13.148	1,211,142	1.000	1,211,142
361.00	361.00	Sanitary Sewers	1953	1953	10	3,255.75		13,103.72	HWW-144	51.3	674.5	13.148	172,288	1.000	172,288
361.00	361.00	Sanitary Sewers	1953	1953	15	755.54		4,818.66	HWW-144	51.3	674.5	13.148	63,356	1.000	63,356
361.00	361.00	Sanitary Sewers	1953	1953	18	127.00		1,077.34	HWW-144	51.3	674.5	13.148	14,165	1.000	14,165
361.00	361.00	Sanitary Sewers	1953	1953	20	627.42		6,915.30	HWW-144	51.3	674.5	13.148	90,922	1.000	90,922
361.00	361.00	Sanitary Sewers	1952	1952	8	299.85		862.75	HWW-144	48.8	674.5	13.793	11,900	1.000	11,900
361.00	361.00	Sanitary Sewers	1951	1951	8	943.45		2,590.57	HWW-144	47.5	674.5	14.200	36,786	1.000	36,786
361.00	361.00	Sanitary Sewers	1950	1950	8	1,095.33		2,824.80	HWW-144	46	674.5	14.663	41,420	1.000	41,420
361.00	361.00	Sanitary Sewers	1950	1950	21	787.11		7,373.97	HWW-144	46	674.5	14.663	108,125	1.000	108,125
361.00	361.00	Sanitary Sewers	1950	1950	24	677.64		7,454.09	HWW-144	46	674.5	14.663	109,299	1.000	109,299
361.00	361.00	Sanitary Sewers	1949	1949	8	329.25		784.18	HWW-144	44.6	674.5	15.123	12,010	1.000	12,010
361.00	361.00	Sanitary Sewers	1948	1948	8	571.22		1,331.62	HWW-144	43.1	674.5	15.650	20,840	1.000	20,840
361.00	361.00	Sanitary Sewers	1947	1947	8	2,629.06		5,490.67	HWW-144	38.2	674.5	18.633	102,308	1.000	102,308
361.00	361.00	Sanitary Sewers	1946	1946	8	4,020.96		7,035.28	HWW-144	32.3	674.5	20.882	146,910	1.000	146,910
361.00	361.00	Sanitary Sewers	1945	1945	8	723.65		1,127.06	HWW-144	27.8	674.5	24.263	27,346	1.000	27,346
361.00	361.00	Sanitary Sewers	1944	1944	8	506.72		766.15	HWW-144	27.4	674.5	24.617	18,660	1.000	18,660
361.00	361.00	Sanitary Sewers	1943	1943	6	356.59		522.92	HWW-144	26.9	674.5	25.074	13,112	1.000	13,112
361.00	361.00	Sanitary Sewers	1943	1943	8	1,102.75		1,617.15	HWW-144	26.9	674.5	25.074	40,548	1.000	40,548
361.00	361.00	Sanitary Sewers	1943	1943	8	171,457.23		251,436.52	HWW-144	26.9	674.5	25.074	6,304,519	1.000	6,304,519
361.00	361.00	Sanitary Sewers	1943	1943	10	16,395.01		31,893.45	HWW-144	26.9	674.5	25.074	799,696	1.000	799,696
361.00	361.00	Sanitary Sewers	1943	1943	12	8,924.70		21,634.91	HWW-144	26.9	674.5	25.074	542,474	1.000	542,474
361.00	361.00	Sanitary Sewers	1943	1943	15	8,221.38		25,343.07	HWW-144	26.9	674.5	25.074	635,452	1.000	635,452
361.00	361.00	Sanitary Sewers	1943	1943	18	5,040.05		24,754.97	HWW-144	26.9	674.5	25.074	620,957	1.000	620,957
361.00	361.00	Sanitary Sewers	1943	1943	21	812.06		4,326.00	HWW-144	26.9	674.5	25.074	108,470	1.000	108,470
361.00	361.00	Sanitary Sewers	1943	1943	22	447.77		2,800.80	HWW-144	26.9	674.5	25.074	70,227	1.000	70,227

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Account	Account	Asset Description	Year Installed	Effective Installation Year	Units	Quantity	Replacement cost per unit	Original Cost	Costing Parameter	Placement Date Cost Index	Appraisal Date Cost Index	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
								OC $s					RCN $s	COR $s / RCN $s	COR $s
Input	Input	Input	Input	Input				Input	Input	Input	Input	Calculation	Calculation	Input	Calculation
Eng Assmnt	AUS Input	City of York Wastewater Assets Detail By Busbart from Engineers	Eng Assmnt	AUS Input				Eng Assmnt	AUS Input	Cost Indices Lookup Cons(10) & (5)	Cost Indices Lookup Cons(10) & Study YR	Col (12) / (11)	Col (5) * (13)	AUS Input	Col (14) * (15)
NARUC Code	NARUC Code	Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR / RCN Factor	COR
361.00	361.00	Sanitary Sewers	1943	1943	24	2,604.23		16,289.26	HWW-144	26.9	674.5	25.074	408,437	1.000	408,437
361.00	361.00	Sanitary Sewers	1943	1943	27	2,461.85		22,472.75	HWW-144	26.9	674.5	25.074	563,482	1.000	563,482
361.00	361.00	Sanitary Sewers	1943	1943	36	2,180.97		26,761.41	HWW-144	26.9	674.5	25.074	671,016	1.000	671,016
361.00	361.00	Sanitary Sewers	1942	1942	8	4,717.79		6,584.49	HWW-144	26.8	674.5	25.074	165,100	1.000	165,100
361.00	361.00	Sanitary Sewers	1941	1941	6	1,213.70		1,583.45	HWW-144	25.4	674.5	26.555	42,049	1.000	42,049
361.00	361.00	Sanitary Sewers	1940	1940	8	2,949.75		3,609.74	HWW-144	24.4	674.5	27.643	99,784	1.000	99,784
361.00	361.00	Sanitary Sewers	1939	1939	8	301.50		359.81	HWW-144	24.4	674.5	27.643	9,946	1.000	9,946
361.00	361.00	Sanitary Sewers	1939	1939	6	4,879.92		5,823.71	HWW-144	24.4	674.5	27.643	160,985	1.000	160,985
361.00	361.00	Sanitary Sewers	1938	1938	8	8,602.76		10,266.54	HWW-144	23.9	674.5	28.222	289,742	1.000	289,742
361.00	361.00	Sanitary Sewers	1937	1937	8	9,655.80		11,474.42	HWW-144	23.9	674.5	28.222	323,831	1.000	323,831
361.00	361.00	Sanitary Sewers	1936	1936	8	10,121.42		10,543.46	HWW-144	22.5	674.5	29.978	316,072	1.000	316,072
361.00	361.00	Sanitary Sewers	1936	1936	10	1,202.32		1,661.42	HWW-144	22.5	674.5	29.978	49,806	1.000	49,806
361.00	361.00	Sanitary Sewers	1936	1936	12	2,041.24		3,515.00	HWW-144	22.5	674.5	29.978	105,373	1.000	105,373
361.00	361.00	Sanitary Sewers	1936	1936	15	1,459.23		3,195.26	HWW-144	22.5	674.5	29.978	95,788	1.000	95,788
361.00	361.00	Sanitary Sewers	1935	1935	8	5,057.51		5,012.65	HWW-144	21.4	674.5	31.519	157,994	1.000	157,994
361.00	361.00	Sanitary Sewers	1935	1935	10	664.92		874.22	HWW-144	21.4	674.5	31.519	27,555	1.000	27,555
361.00	361.00	Sanitary Sewers	1935	1935	15	93.63		195.07	HWW-144	21.4	674.5	31.519	6,148	1.000	6,148
361.00	361.00	Sanitary Sewers	1934	1934	8	795.28		796.27	HWW-144	21.4	674.5	31.519	25,098	1.000	25,098
361.00	361.00	Sanitary Sewers	1933	1933	15	1,485.41		2,884.18	HWW-144	19.3	674.5	34.948	93,807	1.000	93,807
361.00	361.00	Sanitary Sewers	1932	1932	8	210.90		167.44	HWW-144	19.3	674.5	34.948	5,852	1.000	5,852
361.00	361.00	Sanitary Sewers	1932	1932	8	1,958.67		1,555.02	HWW-144	19.3	674.5	34.948	54,345	1.000	54,345
361.00	361.00	Sanitary Sewers	1932	1932	10	1,927.84		2,030.10	HWW-144	19.3	674.5	34.948	70,948	1.000	70,948
361.00	361.00	Sanitary Sewers	1932	1932	15	561.58		937.19	HWW-144	19.3	674.5	34.948	32,753	1.000	32,753
361.00	361.00	Sanitary Sewers	1931	1931	8	12,379.25		11,330.46	HWW-144	21.4	674.5	31.519	357,125	1.000	357,125
361.00	361.00	Sanitary Sewers	1931	1931	10	325.04		384.65	HWW-144	21.4	674.5	31.519	12,439	1.000	12,439
361.00	361.00	Sanitary Sewers	1930	1930	8	16,585.14		17,025.10	HWW-144	22.5	674.5	29.978	510,378	1.000	510,378
361.00	361.00	Sanitary Sewers	1930	1930	12	2,199.51		3,732.38	HWW-144	22.5	674.5	29.978	111,889	1.000	111,889
361.00	361.00	Sanitary Sewers	1930	1930	15	57.62		124.34	HWW-144	22.5	674.5	29.978	3,727	1.000	3,727
361.00	361.00	Sanitary Sewers	1930	1930	22	466.45		2,042.32	HWW-144	22.5	674.5	29.978	61,225	1.000	61,225
361.00	361.00	Sanitary Sewers	1928	1928	8	3,503.10		3,665.88	HWW-144	21.4	674.5	31.519	115,576	1.000	115,576
361.00	361.00	Sanitary Sewers	1927	1927	8	4,732.16		4,929.48	HWW-144	22.5	674.5	29.978	147,776	1.000	147,776
361.00	361.00	Sanitary Sewers	1926	1926	8	22,578.00		23,747.80	HWW-144	24.6	674.5	27.419	651,141	1.000	651,141
361.00	361.00	Sanitary Sewers	1926	1926	10	2,197.67		3,056.32	HWW-144	24.6	674.5	27.419	84,075	1.000	84,075
361.00	361.00	Sanitary Sewers	1926	1926	12	795.45		1,383.08	HWW-144	24.6	674.5	27.419	37,923	1.000	37,923
361.00	361.00	Sanitary Sewers	1925	1925	8	29,664.41		30,004.61	HWW-144	24.6	674.5	27.419	822,696	1.000	822,696
361.00	361.00	Sanitary Sewers	1925	1925	12	656.02		1,135.15	HWW-144	24.6	674.5	27.419	31,125	1.000	31,125
361.00	361.00	Sanitary Sewers	1925	1925	15	376.77		829.01	HWW-144	24.6	674.5	27.419	22,731	1.000	22,731
361.00	361.00	Sanitary Sewers	1925	1925	36	283.17		2,480.19	HWW-144	24.6	674.5	27.419	68,004	1.000	68,004
361.00	361.00	Sanitary Sewers	1924	1924	8	488.25		509.08	HWW-144	25.7	674.5	26.245	13,361	1.000	13,361
361.00	361.00	Sanitary Sewers	1922	1922	24	361.13		1,355.31	HWW-144	23.5	674.5	28.702	38,900	1.000	38,900
361.00	361.00	Sanitary Sewers	1921	1921	12	106.29		178.48	HWW-144	25.6	674.5	26.348	4,729	1.000	4,729
361.00	361.00	Sanitary Sewers	1919	1919	10	846.77		1,124.66	HWW-144	23.5	674.5	28.702	32,280	1.000	32,280
361.00	361.00	Sanitary Sewers	1917	1917	8	1,649.47		1,509.73	HWW-144	19.3	674.5	34.948	52,762	1.000	52,762
361.00	361.00	Sanitary Sewers	1917	1917	10	16.18		19.64	HWW-144	19.3	674.5	34.948	686	1.000	686
361.00	361.00	Sanitary Sewers	1917	1917	15	720.67		1,386.53	HWW-144	19.3	674.5	34.948	48,456	1.000	48,456
361.00	361.00	Sanitary Sewers	1917	1917	18	250.45		640.92	HWW-144	19.3	674.5	34.948	22,399	1.000	22,399

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New (RCN)

[1] Account	[2] Account	[3] Asset Description	[4] Year Installed	[5] Effective Installation Year	[6] Units	[7] Quantity	[8] Replacement cost per unit	[9] Original Cost	[10] Costing Parameter	[11] Placement Date Cost Index	[12] Appraisal Date Cost Index	[13] Cost Translator	[14] Reproduction Cost New (RCN)	[15] Reproduction Cost New (RCN) to Replacement Cost New (COR)	[16] Replacement Cost New (COR)
NARUC Code	NARUC Code	City of York Wastewater Assets Detail by Buchart Horn Engineers — Asset Description	Service Date					Original Cost	Cost Index Table	YearIndex	APPCostIndex	Translator	RCN	COR : RCN Factor	COR
361.00	361.00	Sanitary Sewers	1916	1916	8	449.65		295.59	HWW-144	12.9	674.5	52.287	15,456	1.000	15,456
361.00	361.00	Sanitary Sewers	1912	1912	8	807.49		379.75	HWW-144	9.7	674.5	69.536	26,406	1.000	26,406
		Subtotal Account 361 - Collection Sewers - Pipes				**548,192.98**		**26,712,768.07**					**88,834,842**		**88,834,842**
		Accounts 354.3, 355, 360 - Structures & Improvements - Pumping													
354.30	354.30	7.5 HP Smith & Loveles Package Pump Station	1980	1980		1.00		116,920.51	HWW-18	181	762	4.210	492,235	1.000	492,235
354.30	354.30	Wet Well Structure	1980	1980		1.00		15,032.64	HWW-18	181	762	4.210	63,287	1.000	63,287
354.30	354.30	Valve Vault	1980	1980		1.00		2,645.74	HWW-18	181	762	4.210	11,139	1.000	11,139
354.30	354.30	Plug Valves	1980	1980		2.00		2,766.01	HWW-18	181	762	4.210	11,645	1.000	11,645
354.30	354.30	Check Valves	1980	1980		2.00		2,284.96	HWW-18	181	762	4.210	9,620	1.000	9,620
355.30	355.30	Generator	1980	1980		1.00		15,032.64	USBLS4	79.7	216.2	2.713	40,784	1.000	40,784
354.30	354.30	Automatic Transfer Switch	1980	1980		1.00		2,104.57	HWW-18	181	762	4.210	8,860	1.000	8,860
360.21	360.21	Forcemain (ft)	1980	1980		1,700.00		42,592.47	HWW-144	173	674.5	3.899	166,068	1.000	166,068
		Subtotal Accounts 354.3, 355, 360 - Structures & Improvements - Pumping				**1,709.00**		**199,379.54**					**803,638**		**803,638**
		Total OSP						**34,303,573.13**					**166,270,900**		**166,270,900**
		Total York						**155,875,776.15**					**470,735,872**		**474,152,569**
		Engineer Assessment						155,875,775.04							
		Difference						**(1.11)**							

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

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)
Account Number	Description	Costing Parameters				Reproduction to Replacement Cost Factor
		Index Series	Table	Line Reference	Lookup	AUS Input
353.00	Land & Land Rights - Land	USBLS	PPI	3.00	USBLS3	1.00
353.05	Land & Land Rights - Easements	USBLS	PPI	3.00	USBLS3	1.00
354.30	Stuctures & Improvements - Pumping	HW	W-1	8.00	HWW-18	1.00
354.40	Stuctures & Improvements - Treatment	HW	W-1	15.00	HWW-115	1.00
355.30	Generating Equipment - Pumping	USBLS	PPI	4.00	USBLS4	1.00
360.21	Collection Sewers - Force - Mains	HW	W-1	44.00	HWW-144	1.00
361.00	Mains Gravity	HW	W-1	44.00	HWW-144	1.00
361.70	Collection Sewers - Gravity - Manholes	HW	W-1	45.00	HWW-145	1.00
363.00	Service Laterals	HW	W-1	39.00	HWW-139	1.00
364.00	Flow Measuring Devices	HW	W-1	40.00	HWW-140	1.00
371.20	Pumping Equipment	HW	W-1	9.00	HWW-19	1.00
380.00	Treatment and Disposal Equipment	HW	W-1	17.00	HWW-117	1.00
390.00	Office Furniture and Equipment	AUS	T-1	15.00	AUST-115	1.00
391.00	Transportation Equipment	AUS	T-1	4.00	AUST-14	1.00
394.00	Laboratory Equipment	AUS	T-1	7.00	AUST-17	1.00

\\aus-dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System
Valuation as of 4-6-2021

Current cost of Easements

Activity	Engineer	Legal	Fees	Total
Determine the facilities for which a Easment is need	1	0	0	
Locate the Land owner for the property needing a easement	1	1	0	
Develop a diagram o the Property, the facilities, and the easement	2	0	0	
Develop the easement document	1	1	0	
Visit the property owner to obtain permission for the easement and sign the easment documentation	4	0	0	
Register the easement with the Municipal Clerk	0	1	250	
Total	9	3	250	
Labor Costs per Hour	54	100		
Total Cost	486	300	250	1,036

Comparable Sales Statistics
City of York PA and around Wastewater Treatment Plant

	Low	Average	Median	High	Count
Price					
For sale & UC/Pending	$ 45,000	$ 1,218,001	$ 839,700	$ 5,000,000	30
Sold Transactons	$ 1,760	$ 911,748	$ 450,000	$ 6,500,000	33
Parcel Size (acres)					
For sale & UC/Pending	0.21	15.87	5.395	116.87	34
Sold Transactons	0.06	12.17	1.59	202.61	49
Price per Acre					
For sale & UC/Pending	$ 23,260	$ 77,740	$ 150,357	$ 1,244,344	30
Sold Transactons	$ 164	$ 45,943	$ 116,105	$ 1,936,000	23
Days on the Market					
For sale & UC/Pending	45	1,433	859	7,775	34
Sold Transactons	26	557	250	4,920	26
Sale Price to Asking Price Ratio					
Sold Transactons	55.70%	81.03%	79.31%	108.33%	6.00%

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Cost Approach
Replacement Cost New less Depreciation

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 York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	City of York Wastewater Assets Detail by Buchart Horn Engineers		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.00	Land & Land Rights - Land	73.39	3,527,270	ZNonDep	-	-	-	-	3,527,270
353.05	Land & Land Rights - Easements	93.94	1,794,835	ZNonDep	-	-	-	-	1,794,835
354.30	Stuctures & Improvements - Pumping	40.50	596,786	R4.0	45.00	9.04	49.54	45.00	108,901
354.40	Stuctures & Improvements - Treatment	33.18	233,812,447	R4.0	55.00	25.40	58.57	55.00	106,434,616
355.30	Generating Equipment - Pumping	40.50	40,784	R3.0	35.00	5.25	45.75	35.00	6,118
360.21	Collection Sewers - Force - Mains	40.50	166,068	R3.0	75.00	37.88	78.38	75.00	80,258
361.00	Mains Gravity	42.65	88,834,842	R2.5	80.00	44.32	86.97	80.00	46,659,867
361.70	Collection Sewers - Gravity - Manholes	65.46	32,534,869	S2.0	75.00	25.66	91.12	75.00	9,902,159
363.00	Service Laterals	76.98	44,097,551	R3.0	50.00	8.44	85.42	50.00	7,389,193
364.00	Flow Measuring Devices	13.75	142,103	S2.0	30.00	18.72	32.47	30.00	85,852
371.20	Pumping Equipment	47.62	358,069	R3.0	35.00	7.11	54.73	35.00	71,710
380.00	Treatment and Disposal Equipment	18.98	66,780,665	R2.0	45.00	29.75	48.74	45.00	41,866,791
390.00	Office Furniture and Equipment	6.50	66,154	R3.0	12.00	6.06	12.56	12.00	31,919
391.00	Transportation Equipment	26.49	556,990	R3.0	15.00	2.67	29.17	15.00	97,104
394.00	Laboratory Equipment	19.09	843,136	R3.0	20.00	7.54	26.63	20.00	309,634
Grand Total		39.75	474,152,569		58.42	27.62	66.47	0.46	218,366,227

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Pennsylvania American Water Company **The York City Sewer Authority Wastewater System** **Wastewater Collection & Treatment System** **Investor-Owned Utility** **As of April 6, 2021**																	
Replacement Cost New less Depreciation (RCNLD)																	
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	(Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ 50- (28)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assume	Eng Assume	Eng Assume	2021-[(20)+0.5]	Col (18)	AUS Input	AUS Input	Col (24) / (24)	Col (23) & (25)	Col (24) * (27)	Col (21) - (28)	Col (28) / (29)	Col (29) * (30)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (25)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeF	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
353	City of York-York Water Co-5/30/1939	1939	81.50	2,900,303	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	2,900,303	236,374,686	-	-	-
353	York City Sewer Auth-Merchants Terminal Corp.-10/6/1984	1984	36.50	285,618	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	285,618	10,425,068	-	-	-
353	York City Sewer Auth-Merchants Terminal Corp.-8/23/1985	1985	35.50	299,551	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	299,551	10,634,057	-	-	-
353	York City Sewer Auth-Theodore R. Jones-4/3/1986	1986	34.50	41,798	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	41,798	1,442,024	-	-	-
353	York City Sewer Auth-Theodore R. Jones-8/2/1994	1994	26.50	-	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	-	-	-	-	-
				3,527,270									**3,527,270**	**258,875,835**	-	-	-
353.05	City of York-Guardian Trust Co.-4380	1912	108.50	864,000	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	864,000	93,744,000	-	-	-
353.05	City of York-P A & S Small Land Co.-5423	1914	106.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	110,334	-	-	-
353.05	City of York-Jane Grealy-5656	1915	105.50	32,000	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	32,000	3,376,000	-	-	-
353.05	City of York-Joseph R. Jones-5352	1917	103.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	107,226	-	-	-
353.05	City of York-Bilmeyer & Small Co.-6795	1918	102.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	106,190	-	-	-
353.05	City of York-West End Sewer Co.-7254	1919	101.50	115,200	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	115,200	11,692,800	-	-	-
353.05	City of York-Jacob Bare Est.-9701	1926	94.50	17,455	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	17,455	1,649,498	-	-	-
353.05	City of York-William M. Boger-9763	1926	94.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	97,902	-	-	-
353.05	City of York-Ralph K. Trimmer-9769	1926	94.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	97,902	-	-	-
353.05	City of York-Grier Hersh-11514	1931	89.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	92,722	-	-	-
353.05	City of York-York County Poor District-11715	1932	88.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	91,686	-	-	-
353.05	City of York-Annie M. Menough-11815	1932	88.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	91,686	-	-	-
353.05	City of York-Frederick C. Boesch Exr-11815	1932	88.50	2,400	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	2,400	212,400	-	-	-
353.05	City of York-Community Swimming Assn Inc-11819	1932	88.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	91,686	-	-	-
353.05	City of York-Norard HosieryMills Inc.-12275	1933	87.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	90,650	-	-	-
353.05	City of York-Agnes Kehm-12409	1933	87.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	90,650	-	-	-
353.05	City of York-Sallie S. Bond-34324	1993	27.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	28,490	-	-	-
353.05	City of York-York Hospital-13281	1936	84.50	610,612	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	610,612	51,598,714	-	-	-
353.05	City of York-David M. Myers Exr-13757	1937	83.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	86,506	-	-	-
353.05	City of York-York County Institution Dist-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-J. Victor Jones-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-York Teck & Nail Works-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-New York WireCloth Co-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-Home Furniture Co-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-David P. Klinedinst Trust-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-American Chain & Cable Co. Inc.-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-George H. Wolf-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-Maryland & Penna. Railroad Co.-14041	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-York County Institution Dist-14055	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-Ella L. Kleffman-14082	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-George D. Deardorff-14082	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-Sarah E. Miller-14082	1938	82.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	85,470	-	-	-
353.05	City of York-Howard E. Holland-14335	1939	81.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	84,434	-	-	-
353.05	City of York-Ray S. Noonan-15231	1941	79.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	82,362	-	-	-
353.05	City of York-Fannie M. Free-16625	1945	75.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	78,218	-	-	-
353.05	City of York-C. Kauffman Miller-17279	1947	73.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	76,146	-	-	-
353.05	City of York-David Y. Herbst-18571	1950	70.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	73,038	-	-	-
353.05	City of York-Penn Dairies Inc.-18608	1950	70.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	73,038	-	-	-
353.05	York City Sewer Auth-City of York-19089	1952	68.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	70,966	-	-	-
353.05	York City Sewer Auth-Commonwealth of PA-25240	1969	51.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	53,354	-	-	-
353.05	York City Sewer Auth-GTE Sylvania Inc.-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-
353.05	York City Sewer Auth-Robert Eichelberger-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
input	input	input	Calculation	Calculation	Input	input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ ... (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021-[(20)+0.5]	Col (18)	AUS input	AUS input	Col (21) / (24)	Col (25) & (25)		Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
353.05	York City Sewer Auth-York Stone andSupply Co.-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-
353.05	York City Sewer Auth-York Drilling Co. Inc.-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-
353.05	York City Sewer Auth-Williams Tool & Machine-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-
353.05	York City Sewer Auth-Luther D. March-26123	1971	49.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	51,282	-	-	-
353.05	York City Sewer Auth-Sun Oil Company-26303	1972	48.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	50,246	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	33.50	4,731	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	4,731	158,489	-	-	-
353.05	York City Sewer Auth-Champion Intl Corp.-31897	1987	33.50	6,401	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	6,401	214,434	-	-	-
353.05	York City Sewer Auth-Larry Liebgott-31897	1987	33.50	5,566	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	5,566	186,461	-	-	-
353.05	York City Sewer Auth-York City School District-31897	1987	33.50	14,193	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	14,193	475,466	-	-	-
353.05	York City Sewer Auth-York College of PA-31897	1987	33.50	15,780	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	15,780	528,630	-	-	-
353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	33.50	1,392	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,392	46,632	-	-	-
353.05	York City Sewer Auth-Robert D. Hechinger-31897	1987	33.50	8,349	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	8,349	279,692	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-L. Levetan & Sons-31897	1987	33.50	4,453	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	4,453	149,176	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-York City Redev. Auth.-31897	1987	33.50	3,340	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	3,340	111,890	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-City of York-31897	1987	33.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	34,706	-	-	-
353.05	York City Sewer Auth-Maryland and PA Railroad-31905	1987	33.50	2,087	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	2,087	69,915	-	-	-
353.05	York City Sewer Auth-Dennis L. Edleblute-32330	1988	32.50	1,947	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,947	63,278	-	-	-
353.05	York City Sewer Auth-York City Redev. Auth.-32351	1988	32.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	33,670	-	-	-
353.05	York City Sewer Auth-Evelyn JaneSilberman-32468	1988	32.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	33,670	-	-	-
353.05	York City Sewer Auth-Maryland and PA Railroad-32496	1988	32.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	33,670	-	-	-
353.05	York City Sewer Auth-Columbia Gas of PA Inc.-32533	1989	31.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	32,634	-	-	-
353.05	York City Sewer Auth-City of York-34220	1993	27.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	28,490	-	-	-
353.05	York City Sewer Auth-Dentsply Intl. Inc.-34303	1993	27.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	28,490	-	-	-
353.05	York City Sewer Auth-York Building Prod. Co.-36755	2000	20.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	21,238	-	-	-
353.05	York City Sewer Auth-Maryland and PA Railroad-36929	2001	19.50	1,452	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,452	28,314	-	-	-
353.05	York City Sewer Auth-Maryland and PA Railroad-36929	2001	19.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	20,202	-	-	-
353.05	York City Sewer Auth-York City School Dist.-36962	2001	19.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	20,202	-	-	-
353.05	York City Sewer Auth-John E. Gearhart-36962	2001	19.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	20,202	-	-	-
353.05	York City Sewer Auth-B.B., Jr., Inc.-37601	2002	18.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	19,166	-	-	-
353.05	York City Sewer Auth-Creekside Investors, LP-37631	2003	17.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	18,130	-	-	-
353.05	York City Sewer Auth-John E. Gearhart-39465	2008	12.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	12,950	-	-	-
353.05	York City Sewer Auth***-Crestcon Inc.-39465	2008	12.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	12,950	-	-	-
353.05	York City Sewer Auth-Svedala Industries Inc.-39527	2008	12.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	12,950	-	-	-
353.05	York City Sewer Auth-York College of PA-39615	2008	12.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	12,950	-	-	-
353.05	York City Sewer Auth-Metso Minerals Indust. Inc.-40164	2009	11.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	11,914	-	-	-
353.05	York City Sewer Auth-Metso Minerals Indust. Inc.-40195	2010	10.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	10,878	-	-	-
353.05	York City Sewer Auth-John E. Gearhart-40500	2010	10.50	14,065	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	14,065	147,683	-	-	-
353.05	York City Sewer Auth-Molt LLC-43304	2018	2.50	1,036	ZNonDep	0.0	0	ZNonDep000	0.00000	0.00	0.00	100.000000%	1,036	2,590	-	-	-
				1,784,835									1,784,835	[illegible]	-	-	-
354.4	Structure	1988	32.50	5,084,846	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	2,147,979	165,257,495	120,866,769	286,124,264	279,666,530
354.4	Piping	1988	32.50	175,209	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	74,013	5,694,293	4,164,718	9,859,010	9,636,495

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $'s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $'s	COR $'s * Years	COR $'s * Years	COR $'s * Years	COR $'s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup (use Iowa Curves Life Tables) @ age (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 [(20)+0.5]	Cor (16)	AUS Input	AUS Input	Cor (21) / (24)	Cor (23) & (25)	Cor (24) * (27)	Cor (24) * (27)	Cor (21) + (28)	Cor (28) / (29)	Cor (22) * (30)	Cor (22) * (21)	Cor (22) * (28)	Cor (22) * (29)	Cor (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Electrical Wiring	1988	32.50	214,866	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	90,765	6,963,145	5,107,365	12,090,510	11,817,630
360	Electrical Equipment	1988	32.50	108,792	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	40,758	3,535,740	2,118,180	5,653,920	4,895,640
354.4	Summitt	2015	4.50	11,750	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	10,791	52,875	584,668	647,543	648,250
354.4	EIM Gate Operators	1999	21.50	21,331	R4.0	55.0	39	R4.0039	0.61495	33.82	55.32	61.135213%	13,041	458,617	721,414	1,180,031	1,173,205
380	Pista-grit No. 1	2002	18.50	15,012	R2.0	45.0	41	R2.0041	0.65261	29.38	47.88	61.361738%	9,825	296,222	470,433	766,655	720,540
380	Grit Dump Facility	2001	19.50	157,290	R2.0	45.0	43	R2.0043	0.63735	28.68	48.18	59.526775%	93,630	3,067,155	4,511,077	7,578,232	7,078,050
380	Equipment	2004	16.50	188,180	R2.0	45.0	37	R2.0037	0.68419	30.79	47.29	65.108903%	122,508	3,104,640	5,793,446	8,898,086	8,467,200
354.4	Piping	2004	16.50	9,236	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	8,471	152,394	356,694	509,088	507,960
354.4	Electrical Wiring	2004	16.50	22,468	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	15,743	370,739	867,753	1,238,491	1,235,795
354.4	Structure	2006	12.50	147,074	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	113,587	1,838,425	6,235,938	8,074,363	8,089,070
354.4	Structure (HVAC, Odor Control)	2009	11.50	81,555	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	64,499	937,883	3,546,827	4,484,709	4,485,525
354.4	Piping	2009	11.50	84,509	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	51,018	741,842	2,805,453	3,547,295	3,547,940
380	Process Equipment	2009	11.50	319,906	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	240,465	3,678,919	11,135,928	14,814,847	14,395,770
380	Process Equipment	2011	9.50	1,179,765	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	937,173	11,207,766	43,297,376	54,505,143	53,089,425
354.4	Piping	2011	9.50	26,542	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	22,055	253,099	1,217,007	1,470,106	1,465,310
354.4	Structure	2011	9.50	92,653	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	76,702	880,204	4,232,388	5,112,593	5,095,915
354.4	Electrical Wiring	2011	9.50	229,490	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	189,980	2,180,155	10,483,103	12,663,258	12,621,950
354.4	Electrical Equipment	2011	9.50	23,332	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	19,315	221,654	1,065,806	1,287,460	1,283,260
354.4	Structure	2012	8.50	8,058	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	5,126	51,493	283,333	334,826	333,190
380	Process Equipment	2012	8.50	8,011	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	6,529	68,094	300,092	368,186	360,495
354.4	Structure (Overhead Doors)	2014	6.50	14,718	R4.0	55.0	12	R4.0012	0.86023	48.41	54.91	88.162448%	12,976	95,587	712,496	808,155	809,490
354.4	Overhead Door	2017	3.50	21,097	R4.0	55.0	6	R4.0006	0.94008	51.70	55.20	93.659420%	19,758	73,840	1,090,715	1,164,554	1,160,335
				8,224,770									**4,364,709**	**211,202,358**	**231,979,002**	**443,181,355**	**432,582,890**
354.4	Structures	1990	30.50	334,526	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	152,946	10,203,104	8,594,024	18,797,128	18,399,040
380	Process Equipment	1990	30.50	665,158	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	276,528	20,897,319	14,141,661	35,038,980	30,832,110
354.4	Electrical Equipment	1990	30.50	140,038	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	64,025	4,271,159	3,597,576	7,868,735	7,702,090
354.4	Channel Improvement	1995	25.50	27,182	R4.0	55.0	46	R4.0046	0.54887	30.19	55.69	54.210810%	14,736	693,141	820,625	1,513,766	1,495,010
				1,186,906									**506,235**	**36,064,723**	**27,153,886**	**63,218,609**	**58,428,250**
354.4	Structure	1954	66.50	1,778,897	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	266,835	118,296,651	14,675,900	132,972,551	97,839,335
354.4	Structure	1963	57.50	3,293,085	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	493,964	189,352,963	27,168,034	216,520,996	181,120,225
354.4	Structure	1981	39.50	19,152	R4.0	55.0	72	R4.0072	0.32657	17.86	57.46	31.256526%	5,986	756,504	343,970	1,100,474	1,053,360
354.4	Structure	1991	29.50	8,201,820	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	3,856,387	241,853,690	214,723,648	456,577,338	451,100,100
354.4	Piping	2020	0.50	108,158	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	107,174	54,079	5,889,203	5,943,282	5,948,690
354.4	Electrical Wiring	2020	0.50	53,458	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	52,972	26,729	2,910,758	2,937,517	2,940,190
354.4	Electrical Equipment	2020	0.50	83,656	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	82,895	41,828	4,555,069	4,596,897	4,601,080
380	Process Equipment	2020	0.50	837,471	R2.0	45.0	1	R2.0001	0.99094	44.59	45.09	98.891107%	828,184	418,736	37,342,832	37,761,567	37,666,195
364	Flow Meters	2020	0.50	31,260	S2.0	30.0	2	S2.0002	0.98000	29.40	29.90	98.327756%	30,737	15,630	919,044	934,674	937,800
380	Hand-wheel Gate	2020	0.50	80,652	R2.0	45.0	1	R2.0001	0.99094	44.59	45.09	98.891107%	79,758	40,326	3,596,273	3,636,599	3,629,340
380	Slab Shafts & Chain	2020	0.50	136,488	R2.0	45.0	1	R2.0001	0.99094	44.59	45.09	98.891107%	134,974	68,244	6,066,000	6,134,244	6,141,960
354.4	Wireway	2020	0.50	37,296	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	36,957	18,648	2,030,767	2,049,415	2,051,280
380	Whipps Sluice Gate	2016	4.50	17,656	R2.0	45.0	10	R2.0010	0.91060	40.98	45.48	90.105541%	15,909	79,452	723,543	802,995	794,520
380	Whipps Sluice Gate	2016	4.50	9,553	R2.0	45.0	10	R2.0010	0.91060	40.98	45.48	90.105541%	8,606	42,989	391,482	434,470	429,885
354.4	Vertical Pump	2016	4.50	8,999	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	8,264	40,496	455,439	495,935	494,945
				14,807,811									**6,009,504**	**551,206,965**	**321,811,982**	**873,018,954**	**796,768,905**
354.4	Structure	1916	104.50	1,019,228	R4.0	55.0	190	R4.0190	0.15000	8.25	112.75	15.000000%	152,884	106,509,328	8,408,631	114,917,957	56,057,540
354.4	Structure	1990	30.50	1,093,403	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	499,903	33,348,792	28,089,523	61,438,315	60,137,165
380	Process Equipment	1990	30.50	364,545	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	147,130	11,116,623	7,524,209	18,642,831	16,404,525

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Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021-([20]+0.5)	Col (16)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	Lookup Iowa Curves Life Tables @ col (26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Piping	1990	30.50	88,006	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	40,236	2,684,183	2,260,874	4,945,057	4,840,330
354.4	Electrical Wiring	1990	30.50	282,920	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	129,351	8,629,060	7,268,215	15,897,275	15,560,600
354.4	Electrical Equipment	1990	30.50	349,019	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	159,571	10,645,080	8,966,298	19,611,378	19,196,045
354.4	UPS-PSPS	2002	18.50	13,994	R4.0	55.0	34	R4.0034	0.66313	36.47	54.97	66.345279%	9,284	258,889	510,361	769,250	769,670
354.4	Wall Closure	1995	25.50	14,938	R4.0	55.0	46	R4.0046	0.54887	30.19	55.69	54.210810%	8,098	380,919	450,978	831,897	821,590
354.4	Structure	1996	24.50	29,790	R4.0	55.0	45	R4.0045	0.55819	30.70	55.20	55.615942%	16,568	729,855	914,553	1,644,408	1,638,450
380	Process Equipment	1996	24.50	112,938	R2.0	45.0	54	R2.0054	0.55525	24.99	49.49	50.495050%	57,028	2,766,981	2,822,321	5,589,302	5,082,210
354.4	Piping	1996	24.50	19,657	R4.0	55.0	45	R4.0045	0.55819	30.70	55.20	55.615942%	10,932	481,597	603,470	1,085,066	1,081,135
354.4	Electrical Wiring	1996	24.50	19,799	R4.0	55.0	45	R4.0045	0.55819	30.70	55.20	55.615942%	11,011	485,076	607,829	1,092,905	1,088,945
354.4	Ind. Hot Water Sys.	1997	23.50	19,337	R4.0	55.0	43	R4.0043	0.57696	31.73	55.23	57.450661%	11,109	454,420	613,563	1,067,983	1,063,535
354.4	AC System	1997	23.50	270,715	R4.0	55.0	43	R4.0043	0.57696	31.73	55.23	57.450661%	155,528	6,361,803	8,589,787	14,951,589	14,889,325
354.4	Vaughin	2020	0.50	149,184	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	147,827	74,592	8,123,069	8,197,661	8,205,120
354.4	Structure	2009	11.50	25,218	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	19,944	290,007	1,096,731	1,386,738	1,386,990
380	Process Equipment	2001	19.50	511,886	R2.0	45.0	43	R2.0043	0.63735	28.68	48.18	59.526775%	304,578	9,977,487	14,674,581	24,652,068	23,024,970
354.4	Electrical Wiring	2001	19.50	99,785	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	64,687	1,945,808	3,586,273	5,532,080	5,488,175
354.4	Electrical Equipment	2001	19.50	651,679	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	422,463	12,707,741	23,421,343	36,129,084	35,842,345
354.4	Structure	2008	12.50	4,248	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	3,281	53,100	180,115	233,215	233,640
380	Process Equipment	2008	12.50	113,819	R2.0	45.0	28	R2.0028	0.75696	34.06	46.56	73.152921%	83,262	1,422,738	3,876,675	5,299,413	5,121,855
354.4	Piping	2008	12.50	25,488	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	19,685	318,600	1,080,691	1,399,291	1,401,840
354.4	Electrical Wiring	2008	12.50	6,372	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	4,921	79,650	270,173	349,823	350,460
354.4	Electrical Equipment	2008	12.50	1,699	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	1,312	21,238	72,038	93,275	93,445
380	Process Equipment	2010	10.50	161,936	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	125,323	1,700,328	5,819,980	7,520,308	7,287,120
354.4	Piping	2010	10.50	43,280	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	35,029	454,440	1,929,422	2,383,862	2,380,400
354.4	Structure	2010	10.50	9,799	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	7,931	102,890	436,839	539,729	538,945
354.4	Electrical Wiring	2010	10.50	113,153	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	91,582	1,188,107	5,044,361	6,232,467	6,223,415
354.4	Electrical Equipment	2010	10.50	157,411	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	127,403	1,652,816	7,017,382	8,670,198	8,657,605
380	Process Equipment	2012	8.50	23,990	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	19,553	203,915	898,665	1,102,580	1,079,550
354.4	Electrical Wiring	2012	8.50	640,909	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	542,343	5,447,727	29,975,314	35,423,040	35,249,995
354.4	Electrical Equipment	2012	8.50	1,037,459	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	877,906	8,818,402	48,521,957	57,340,359	57,060,245
				7,475,384									**4,307,885**	**231,314,190**	**233,856,221**	**464,970,404**	**388,257,180**
354.4	Structure	1990	30.50	57,625	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	26,346	1,757,563	1,480,386	3,237,949	3,169,375
354.4	Structure	1981	39.50	233,894	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	73,107	9,238,813	4,200,736	13,439,549	12,864,170
380	Process Equipment	1990	30.50	375,544	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	151,569	11,454,092	7,751,228	19,205,320	16,899,480
354.4	Structure	2008	12.50	25,488	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	19,685	318,600	1,080,691	1,399,291	1,401,840
380	Process Equipment	2008	12.50	10,254	R2.0	45.0	28	R2.0028	0.75696	34.06	46.56	73.152921%	7,501	128,175	349,251	477,426	461,430
354.4	Piping	2008	12.50	33,984	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	26,246	424,800	1,440,922	1,865,722	1,869,120
354.4	Electrical Wiring	2008	12.50	6,372	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	4,921	79,650	270,173	349,823	350,460
354.4	Electrical Equipment	2008	12.50	1,699	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	1,312	21,238	72,038	93,275	93,445
				744,880									**310,887**	**23,422,931**	**16,846,425**	**40,068,355**	**37,108,320**
354.4	Structure	1954	66.50	611,521	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	91,728	40,666,147	5,045,048	45,711,195	33,633,655
354.4	Structure	1963	57.50	861,493	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	129,224	49,535,848	7,107,317	56,643,165	47,382,115
354.4	Structure	1981	39.50	6,382	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	1,995	252,089	114,621	366,710	351,010
354.4	Structure	1990	30.50	106,769	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	48,815	3,256,455	2,742,896	5,999,350	5,872,295
380	Process Equipment	1990	30.50	649,019	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	261,943	19,795,080	13,395,752	33,190,832	29,205,855
354.4	Piping	1990	30.50	258,266	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	118,079	7,877,113	6,634,854	14,511,967	14,204,630
354.4	Piping	1963	57.50	18,438	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	2,766	1,060,185	152,114	1,212,299	1,014,090
354.4	Electrical Wiring	1990	30.50	28,304	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	12,941	863,272	727,130	1,590,402	1,556,720
354.4	Electrical Equipment	1990	30.50	2,905	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	1,328	88,603	74,629	163,232	159,775
354.4	Baffles	2014	6.50	21,058	R4.0	55.0	12	R4.0012	0.88023	48.41	54.91	88.162448%	18,565	136,877	1,019,418	1,156,295	1,158,190

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Input Curves Life Turnout @ col (28)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Account	Eng Account	Eng Account	2021.1(20)+0.3	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)		Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
				2,564,155									**587,384**	**123,531,669**	**37,013,779**	**160,545,447**	**134,538,335**
354.4	Structure	1954	66.50	180,557	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	27,084	12,007,041	1,469,585	13,496,636	9,930,635
354.4	Structure	1991	29.50	197,933	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	93,065	5,839,024	5,161,886	11,020,909	10,886,315
380	Process Equipment	1991	29.50	140,088	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	58,625	4,132,596	2,974,068	7,106,664	6,303,960
354.4	Piping	1991	29.50	138,697	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	65,213	4,091,562	3,631,087	7,722,648	7,628,335
354.4	Electrical Equipment	1991	29.50	3,003	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	1,412	88,589	78,619	167,207	165,165
380	Drainage Pump	1998	22.50	11,260	R2.0	45.0	50	R2.0050	0.58452	26.30	48.80	53.893443%	6,068	253,350	296,138	549,488	506,700
354.4	Structure	2001	19.50	10,146	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	6,577	197,847	364,647	562,494	558,030
380	Process Equipment	2001	19.50	202,842	R2.0	45.0	43	R2.0043	0.63735	28.68	48.18	59.526775%	120,745	3,955,419	5,817,509	9,772,928	9,127,890
380	Process Equipment	2010	10.50	122,763	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	95,007	1,289,012	4,412,102	5,701,114	5,524,335
354.4	Piping	2010	10.50	22,579	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	18,275	237,080	1,006,572	1,243,651	1,241,845
354.4	Structure	2010	10.50	16,855	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	13,642	176,978	751,396	928,373	927,025
354.4	Electrical Wiring	2010	10.50	8,850	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	7,163	92,925	394,533	487,458	486,750
354.4	Electrical Wiring	2012	8.50	60,461	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	51,163	513,919	2,827,761	3,341,679	3,325,355
354.4	Roof Replacement	2013	7.50	12,232	R4.0	55.0	14	R4.0014	0.86031	47.32	54.82	86.318862%	10,559	91,740	578,818	670,558	672,760
380	Prim. Effl. Pump #2 Rehab	2013	7.50	39,947	R2.0	45.0	17	R2.0017	0.84966	38.23	45.73	83.599386%	32,559	292,103	1,488,944	1,781,046	1,752,615
				1,187,213									**607,157**	**33,258,185**	**31,283,675**	**84,552,854**	**59,037,715**
354.4	Structure	1981	39.50	870,629	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	272,128	34,389,846	15,636,497	50,026,342	47,684,595
380	Process Equipment	1981	39.50	358,682	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	99,718	14,167,936	5,455,553	19,623,492	16,140,690
354.4	Piping	1981	39.50	427,023	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	133,473	16,867,409	7,669,333	24,536,742	23,486,265
354.4	Electrical Wiring	1981	39.50	15,460	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	4,832	610,670	277,662	888,332	850,300
354.4	Electrical Equipment	1981	39.50	9,681	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	3,026	382,400	173,871	556,270	532,455
354.4	Structure	2008	12.50	99,068	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	76,512	1,238,350	4,200,483	5,438,833	5,448,740
				1,780,543									**589,689**	**67,856,614**	**33,413,399**	**101,070,011**	**94,343,045**
354.4	Structure	1991	29.50	22,673	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	10,661	668,854	583,579	1,262,433	1,247,015
354.4	Structure	1981	39.50	5,219,465	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	1,631,430	206,169,658	93,741,951	299,911,608	287,071,575
380	Process Equipment	1991	29.50	559,550	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	234,166	16,506,725	11,879,247	28,385,972	25,179,750
354.4	Piping	1991	29.50	210,684	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	99,061	6,215,178	5,515,707	11,730,885	11,587,620
354.4	Electrical Wiring	1991	29.50	5,346	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	2,514	157,707	139,958	297,665	294,030
354.4	Electrical Wiring	1981	39.50	47,880	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	14,966	1,891,260	859,925	2,751,185	2,633,400
354.4	Electrical Equipment	1991	29.50	199,014	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	93,574	5,870,913	5,210,187	11,081,100	10,945,770
354.4	Electrical Equipment	1981	39.50	28,728	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	8,979	1,134,756	515,955	1,650,711	1,580,040
				6,293,360									**2,095,351**	**238,615,051**	**118,456,509**	**357,071,559**	**340,539,300**
354.4	Structure	1981	39.50	1,244,685	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	389,045	49,165,058	22,354,543	71,519,600	68,457,675
354.4	Electrical Wiring	1981	39.50	154,054	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	48,152	6,085,133	2,766,810	8,851,943	8,472,870
354.4	Electrical Equipment	1991	29.50	6,498	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	3,055	191,691	170,118	361,809	357,390
354.4	Electrical Equipment	1981	39.50	169,289	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	52,914	6,686,916	3,040,430	9,727,346	9,310,895
354.4	Structure	2011	9.50	94,021	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	77,834	893,200	4,294,879	5,188,079	5,171,155
354.4	Electrical Wiring	2011	9.50	19,582	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	16,211	186,029	894,506	1,080,535	1,077,010
				1,688,128									**587,211**	**63,208,027**	**33,521,286**	**96,729,312**	**92,847,095**
354.4	Structure	1991	29.50	383,945	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	180,526	11,326,378	10,051,680	21,378,058	21,116,975
354.4	Structure	1981	39.50	2,884,315	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	901,537	113,930,443	51,802,297	165,732,740	158,637,325
380	Process Equipment	1991	29.50	88,225	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	36,922	2,602,667	1,873,038	4,475,705	3,970,170
380	Process Equipment	1981	39.50	524,802	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	173,702	24,679,679	9,503,238	34,182,917	28,116,090
354.4	Piping	1981	39.50	106,557	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	33,306	4,209,002	1,913,764	6,122,765	5,860,635

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Pennsylvania American Water Company **The York City Sewer Authority Wastewater System** **Wastewater Collection & Treatment System** **Investor-Owned Utility** **As of April 6, 2021**																	
Replacement Cost New less Depreciation (RCNLD)																	
[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ col (28)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021 ((20)+0.5)	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (22) & (25)	Col (24) * (27)	Col (24) - (28)	Col (28) / (29)	Col (29) * (30)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Electrical Wiring	1981	39.50	81,927	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	25,608	3,236,117	1,471,409	4,707,525	4,505,985
354.4	Electrical Equipment	1981	39.50	26,822	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	8,384	1,059,489	481,723	1,541,192	1,475,210
				4,196,584									**1,359,985**	**161,043,755**	**77,097,149**	**238,140,902**	**223,682,390**
354.4	Structure	1991	29.50	3,337	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	1,569	98,442	87,363	185,804	183,539
354.4	Structure	1981	39.50	593,873	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	185,624	23,457,984	10,665,959	34,123,943	32,663,015
380	Process Equipment	1981	39.50	15,451	R2.0	45.0	88	R2.0066	0.47183	21.23	50.73	41.849005%	6,466	455,805	328,025	783,829	695,295
354.4	Electrical Wiring	1981	39.50	89,732	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	28,047	3,544,414	1,611,587	5,156,001	4,935,260
354.4	Electrical Equipment	1991	29.50	10,769	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	5,063	317,686	281,932	599,618	592,295
354.4	Electrical Equipment	1981	39.50	39,173	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	12,244	1,547,334	703,547	2,250,881	2,154,515
354.4	Structure	2008	12.50	108,956	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	84,148	1,361,950	4,619,734	5,981,684	5,992,580
380	Process Equipment	2011	9.50	36,491	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	28,987	346,665	1,339,220	1,685,884	1,642,095
354.4	Structure	2011	9.50	115,338	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	95,481	1,095,711	5,268,640	6,364,351	6,343,590
354.4	Electrical Wiring	2011	9.50	267,477	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	221,427	2,541,032	12,218,349	14,759,381	14,711,235
354.4	Electrical Equipment	2011	9.50	907,015	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	750,860	8,616,643	41,432,445	50,049,088	49,865,825
				2,187,612									**1,419,816**	**43,383,666**	**76,556,601**	**121,940,464**	**119,789,240**
354.4	Structure	1981	39.50	330,377	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	103,264	13,049,892	5,933,571	18,983,462	18,170,735
380	Process Equipment	1981	39.50	159,914	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	44,458	6,316,603	2,432,292	8,748,895	7,196,130
354.4	Piping	1981	39.50	57,786	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	18,062	2,282,547	1,037,837	3,320,384	3,178,230
354.4	Electric Equipmnet	1981	39.50	38,261	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	11,959	1,511,310	687,169	2,198,477	2,104,355
				586,338									**177,743**	**23,160,352**	**10,090,868**	**33,251,218**	**30,649,450**
354.4	Structure	1954	66.50	5,824,078	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	873,612	387,301,187	48,048,644	435,349,831	320,324,290
354.4	Structure	1981	39.50	6,362	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	1,995	252,089	114,621	366,710	351,010
354.4	Structure	1990	30.50	4,155,830	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	1,900,040	126,752,815	106,763,273	233,516,088	228,570,650
354.4	Electrical Equipment	1990	30.50	126,270	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	57,730	3,851,235	3,243,875	7,095,111	6,944,850
380	MLSS Analyzer	1988	21.50	8,558	R2.0	45.0	48	R2.0048	0.59940	26.97	48.47	55.642686%	4,762	183,997	230,809	414,805	385,110
380	Process Equipment	2012	8.50	4,390,265	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	3,578,314	37,317,253	164,459,327	201,776,579	197,561,925
354.4	Piping	2012	8.50	548,970	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	464,544	4,666,245	25,675,327	30,341,572	30,193,350
354.4	Structure	2012	8.50	373,262	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	315,858	3,172,727	17,457,464	20,630,191	20,529,410
354.4	Electrical Wiring	2012	8.50	365,896	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	309,625	3,110,116	17,112,956	20,223,072	20,124,280
				15,799,511									**7,506,480**	**566,607,654**	**383,105,297**	**949,713,980**	**824,984,875**
354.4	Structure	1954	66.50	2,989,568	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	448,438	198,807,602	24,664,101	223,471,703	164,427,340
354.4	Structure	1963	57.50	2,602,850	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	390,428	149,663,875	21,473,513	171,137,388	143,156,750
354.4	Structure	1990	30.50	261,668	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	119,634	7,980,874	6,722,251	14,703,125	14,381,740
380	Process Equipment	1963	57.50	538,585	R2.0	45.0	128	R2.0128	0.16527	7.44	64.94	15.000000%	80,788	30,968,638	4,007,072	34,975,710	24,236,325
380	Process Equipment	1990	30.50	1,060,753	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	428,118	32,352,967	21,893,942	54,246,908	47,733,885
354.4	Piping	1963	57.50	556,206	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	83,431	31,981,845	4,588,700	36,570,545	30,591,330
354.4	Piping	1990	30.50	282,857	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	129,368	8,630,189	7,259,165	15,889,354	15,562,635
354.4	Electrical Wiring	1990	30.50	51,368	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	23,485	1,566,724	1,319,644	2,886,368	2,825,240
354.4	Electrical Equipment	1990	30.50	2,430	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	1,111	74,115	62,427	136,542	133,650
380	Process Equipment	2010	10.50	330,653	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	255,893	3,471,857	11,883,669	15,355,525	14,879,385
380	Process Equipment	2011	9.50	341,219	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	271,055	3,241,561	12,522,737	15,764,318	15,354,855
354.4	Structure	2011	9.50	189,109	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	156,551	1,796,536	8,638,499	10,435,035	10,400,995
354.4	Electrical Wiring	2011	9.50	19,919	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	16,490	189,231	909,900	1,099,130	1,095,545
380	Process Piping	2012	8.50	317,016	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	258,386	2,694,636	11,875,419	14,570,055	14,265,720
380	Process Equipment	2012	8.50	102,816	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	83,801	873,936	3,851,487	4,725,423	4,626,720
354.4	Structure	2012	8.50	91,368	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	77,316	776,628	4,273,281	5,049,909	5,025,240
354.4	Electrical Wiring	2012	8.50	3,179	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	2,690	27,022	148,682	175,703	174,845

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Pennsylvania American Water Company **The York City Sewer Authority Wastewater System** **Wastewater Collection & Treatment System** **Investor-Owned Utility** **As of April 6, 2021**																	
Replacement Cost New less Depreciation (RCNLD)																	
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Input Curves Life Tables @ col (28)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Account	2021.1[(20)+0.5]	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	IowaCondition	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
				9,741,584									**2,826,983**	**475,098,256**	**146,104,489**	**621,202,741**	**508,882,200**
354.4	Structure	1990	30.50	1,868,675	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	854,356	56,994,588	48,006,261	105,000,848	102,777,125
380	Process Equipment	1990	30.50	546,418	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.358797%	220,533	16,666,749	11,278,068	27,943,817	24,586,810
354.4	Piping	1990	30.50	531,359	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	242,937	16,206,450	13,650,613	29,857,062	29,224,745
354.4	Electrical Wiring	1990	30.50	117,433	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	53,680	3,581,707	3,015,854	6,596,560	6,458,815
354.4	Structure	2003	17.50	33,329	R4.0	55.0	32	R4.0032	0.86258	37.54	55.04	68.204942%	22,732	583,258	1,251,171	1,834,428	1,833,095
380	Process Equipment	2003	17.50	98,370	R2.0	45.0	39	R2.0039	0.86842	30.08	47.58	63.219840%	62,189	1,721,475	2,958,970	4,680,445	4,426,650
354.4	Piping	2003	17.50	22,305	R4.0	55.0	32	R4.0032	0.86258	37.54	55.04	68.204942%	15,213	390,338	837,330	1,227,667	1,225,775
354.4	Electrical Wiring	2003	17.50	11,572	R4.0	55.0	32	R4.0032	0.86258	37.54	55.04	68.204942%	7,893	202,510	434,413	636,923	636,460
380	Process Equipment	2010	10.50	60,372	R2.0	45.0	23	R2.0023	0.79651	35.94	46.44	77.390181%	46,722	633,906	2,169,770	2,803,676	2,718,740
354.4	Piping	2010	10.50	7,626	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	6,334	82,173	348,883	431,056	430,430
354.4	Electrical Wiring	2010	10.50	6,897	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	5,582	72,419	307,468	379,887	379,335
354.4	Electrical Equipment	2010	10.50	4,335	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	3,509	45,518	193,254	238,772	238,425
354.4	Electrical Equipment	2011	9.50	45,902	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	37,999	436,069	2,086,803	2,522,872	2,524,610
354.4	Electrical Wiring	2011	9.50	6,813	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	5,640	64,724	311,218	375,941	374,715
380	Process Equipment	2011	9.50	345,592	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	274,529	3,283,124	12,583,226	15,866,350	15,551,640
380	Process Equipment	2012	8.50	29,189	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	23,791	248,107	1,093,420	1,341,526	1,313,505
354.4	Roof Replacement	2013	7.50	39,736	R4.0	55.0	14	R4.0014	0.86031	47.32	54.82	86.318662%	34,300	298,020	1,860,308	2,178,328	2,185,480
380	Pump Replacement	2013	7.50	8,356	R2.0	45.0	17	R2.0017	0.84966	38.23	45.73	83.599388%	6,986	62,670	319,450	382,120	376,020
				3,784,479									**1,824,935**	**101,572,805**	**102,837,480**	**204,410,278**	**197,263,375**
354.4	Structure	1988	32.50	136,620	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	57,712	4,440,150	3,247,457	7,687,607	7,514,100
354.4	Piping	1988	32.50	9,108	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	3,847	296,010	216,487	512,507	500,940
354.4	Electrical Wiring	1988	32.50	9,258	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	3,915	301,210	220,300	521,510	509,740
354.4	Electrical Equipment	1988	32.50	3,643	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	1,539	118,398	86,594	204,992	200,365
354.4	Structure	2001	19.50	184,101	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	119,347	3,589,970	6,616,590	10,206,559	10,125,595
354.4	Piping	2001	19.50	253,624	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	164,416	4,945,658	9,115,247	14,060,915	13,949,320
				596,354									**350,776**	**13,691,486**	**19,502,685**	**33,194,090**	**32,800,020**
354.4	Structure	1988	32.50	138,442	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	58,482	4,499,365	3,290,766	7,790,131	7,614,310
380	Process Equipment	1988	32.50	42,576	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	15,951	1,383,720	828,955	2,212,675	1,915,920
354.4	Electric Wiring	1988	32.50	7,505	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	3,170	243,913	175,394	422,306	412,775
				188,523									**77,603**	**6,126,998**	**4,295,115**	**10,425,112**	**9,943,005**
354.4	Structure	1988	32.50	13,886,494	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	5,866,038	451,311,055	330,081,962	781,393,017	763,757,170
380	ATI self-cleaning unit	2003	17.50	8,035	R2.0	45.0	39	R2.0039	0.86842	30.08	47.58	63.219840%	5,080	140,613	241,693	382,305	361,575
354.4	Piping	1988	32.50	72,864	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	30,780	2,368,080	1,731,977	4,100,057	4,007,520
354.4	Electrical Equipment	1988	32.50	25,502	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	10,773	828,815	606,183	1,434,998	1,402,610
380	Process Equipment	2011	9.50	6,413,864	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	5,094,996	60,931,708	235,366,609	296,320,517	288,625,860
354.4	Piping	2011	9.50	860,393	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	712,264	8,173,734	39,302,752	47,476,486	47,321,615
354.4	Structure	2011	9.50	462,324	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	382,729	4,392,078	21,118,960	25,511,038	25,427,820
354.4	Electrical Wiring	2011	9.50	748,872	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	620,771	7,123,784	34,254,153	41,377,937	41,242,980
354.4	Structure	2012	8.50	4,045	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	3,423	34,383	189,185	223,567	222,475
				22,483,393									**12,726,854**	**535,304,250**	**662,915,674**	**1,198,219,922**	**1,172,367,625**
354.4	Structure	1988	32.50	182,160	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	76,949	5,920,200	4,329,943	10,250,143	10,018,800
380	Process Equipment	1988	32.50	42,576	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	15,951	1,383,720	828,955	2,212,675	1,915,920
354.4	Piping	1988	32.50	36,432	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	15,390	1,184,040	865,989	2,050,029	2,003,760
354.4	Electrical Wiring	1988	32.50	10,653	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	4,500	346,223	253,222	599,444	585,915
380	Process Equipment	2011	9.50	164,117	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	130,370	1,559,112	6,023,094	7,582,205	7,365,265

Pennsylvania American Water Company
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Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Iowa Curves Life Factors @ col (25)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021-((20)+0.5)	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	lowaLookup	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Piping	2011	9.50	3,918	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	3,243	37,221	178,974	216,195	215,490
354.4	Structure	2011	9.50	42,112	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	34,862	400,064	1,923,676	2,323,740	2,316,180
354.4	Electrical Wiring	2011	9.50	14,359	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	11,887	136,411	655,919	792,330	788,745
354.4	Electrical Equipment	2011	9.50	3,918	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	3,243	37,221	178,974	216,195	215,490
				500,245									**296,395**	**11,804,212**	**15,236,746**	**26,242,956**	**25,446,545**
354.4	Structure	1988	32.50	5,340,028	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	2,255,775	173,550,910	126,932,486	300,483,376	293,701,540
380	Process Equipment	1988	32.50	1,566,797	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	586,864	50,920,903	30,505,538	81,426,440	70,505,865
354.4	Piping	1988	32.50	29,146	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	12,312	947,245	692,800	1,640,045	1,603,030
354.4	Electrical Wiring	1988	32.50	198,656	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	83,918	6,456,320	4,722,053	11,178,373	10,926,080
354.4	Electrical Equipment	1988	32.50	10,930	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	4,617	355,225	259,806	615,031	601,150
380	Process Equipment	2010	10.50	609,250	R2.0	45.0	23	R2.0023	0.78861	35.94	46.44	77.390181%	471,500	6,397,125	21,896,445	28,293,570	27,416,250
				7,754,807									**3,415,106**	**238,627,728**	**185,009,106**	**423,636,835**	**404,753,915**
354.4	Structure	1988	32.50	1,901,950	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	803,436	61,813,375	45,209,352	107,022,727	104,807,250
380	Process Equipment	1988	32.50	212,958	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	79,782	6,921,135	4,146,292	11,067,427	9,583,110
354.4	Piping	1988	32.50	670,349	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	283,174	21,786,343	15,934,196	37,720,538	36,859,195
354.4	Electrical Wiring	1988	32.50	141,446	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	59,751	4,596,995	3,362,171	7,959,166	7,779,530
354.4	Structure	2008	12.50	171,045	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	132,100	2,138,063	7,252,308	9,390,371	9,407,475
380	Process Equipment	2008	12.50	113,819	R2.0	45.0	28	R2.0028	0.75696	34.06	46.56	73.152921%	83,262	1,422,738	3,876,675	5,299,413	5,121,855
354.4	Piping	2008	12.50	16,992	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	13,123	212,400	720,461	932,861	934,560
354.4	Electrical Wiring	2008	12.50	6,372	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	4,921	79,650	270,173	349,823	350,460
354.4	Electrical Equipment	2008	12.50	1,699	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	1,312	21,238	72,038	93,275	93,445
380	Process Equipment	2011	9.50	334,807	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	265,961	3,180,667	12,287,417	15,468,083	15,066,315
354.4	Piping	2011	9.50	273,716	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	226,592	2,600,302	12,503,347	15,103,649	15,054,360
354.4	Electrical Wiring	2011	9.50	95,745	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	79,261	909,578	4,373,632	5,283,209	5,265,975
354.4	Electrical Equipment	2011	9.50	1,598,025	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	1,322,903	15,181,238	72,997,782	88,179,020	87,891,375
				5,536,823									**3,355,578**	**120,863,722**	**163,005,644**	**303,869,562**	**298,024,925**
354.4	Structure	1988	32.50	229,522	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	96,956	7,459,465	5,455,738	12,915,203	12,623,710
380	Process Equipment	1988	32.50	234,169	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463921%	87,729	7,610,460	4,559,251	12,169,711	10,537,560
354.4	Structure	2008	12.50	25,486	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	19,685	318,600	1,080,681	1,399,281	1,401,840
380	Process Equipment	2008	12.50	10,254	R2.0	45.0	28	R2.0028	0.75696	34.06	46.56	73.152921%	7,501	128,175	349,251	477,426	461,430
354.4	Piping	2008	12.50	33,984	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	26,246	424,800	1,440,922	1,865,722	1,868,120
354.4	Electrical Wiring	2008	12.50	6,372	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	4,921	79,650	270,173	349,823	350,460
354.4	Electrical Equipment	2008	12.50	1,699	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	1,312	21,238	72,038	93,275	93,445
				541,487									**244,350**	**16,042,388**	**13,228,064**	**29,270,451**	**27,337,565**
354.4	Structure	1989	31.50	5,511,613	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	2,424,012	173,615,810	136,302,189	309,917,999	303,138,715
354.4	Piping	2021	0.00	66,078	R4.0	55.0	0	R4.0000	1.00000	55.00	55.00	100.000000%	66,078	-	3,634,290	3,634,290	3,634,290
354.4	Electrical Wiring	2021	0.00	88,800	R4.0	55.0	0	R4.0000	1.00000	55.00	55.00	100.000000%	88,800	-	4,884,000	4,884,000	4,884,000
354.4	Electrical Equipment	2021	0.00	240,000	R4.0	55.0	0	R4.0000	1.00000	55.00	55.00	100.000000%	240,000	-	13,200,000	13,200,000	13,200,000
380	1-EIM Gate Operator	2021	0.00	3,360	R2.0	45.0	0	R2.0000	1.00000	45.00	45.00	100.000000%	3,360	-	151,200	151,200	151,200
380	Filter Equip. Replace.	2021	0.00	6,515,594	R2.0	45.0	0	R2.0000	1.00000	45.00	45.00	100.000000%	6,515,594	-	293,201,730	293,201,730	293,201,730
354.4	Structure	2021	0.00	51,581	R4.0	55.0	0	R4.0000	1.00000	55.00	55.00	100.000000%	51,581	-	2,836,955	2,836,955	2,836,955
380	Mechanical Equipment	2021	0.00	192,000	R2.0	45.0	0	R2.0000	1.00000	45.00	45.00	100.000000%	192,000	-	8,640,000	8,640,000	8,640,000
354.4	Structure	2021	0.00	500,912	R4.0	55.0	0	R4.0000	1.00000	55.00	55.00	100.000000%	500,912	-	27,550,160	27,550,160	27,550,160
380	Weir Gates and Operators	2015	5.50	159,112	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962356%	139,959	875,116	6,304,711	7,289,827	7,160,040
380	Mud Valves	2014	6.50	31,648	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.838780%	27,166	205,712	1,246,931	1,452,643	1,424,160
380	Slop Log	2015	5.50	12,948	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962356%	11,389	71,214	520,360	591,594	582,660
				13,373,646									**10,260,851**	**174,767,852**	**498,562,545**	**673,330,398**	**666,403,910**

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

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Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Normal Iowa Curves Life tables @ col (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 ((20)-0.5)	Col (19)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)		Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Structure	1989	31.50	1,535,050	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	675,116	48,354,075	37,961,787	86,315,862	84,427,750
354.4	Structure	1961	39.50	1,488,560	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	465,272	58,798,120	26,734,538	85,532,658	81,870,800
380	Process Equipment	1989	31.50	375,953	R2.0	45.0	70	R2.0070	0.44557	20.05	51.55	38.894277%	146,224	11,842,520	7,537,858	19,380,377	16,917,885
380	Process Equipment	1961	39.50	183,420	R2.0	45.0	88	R2.0088	0.33600	15.21	54.71	27.801133%	50,993	7,245,090	2,789,818	10,034,908	8,253,900
354.4	Piping	1961	39.50	83,867	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	19,963	2,522,747	1,147,051	3,669,798	3,512,685
1999	3-EIM Gate Operators	1999	21.50	22,398	R4.0	55.0	39	R4.0039	0.61486	33.82	55.32	61.135213%	13,693	481,557	757,500	1,239,057	1,231,890
354.4	Structure	2001	19.50	420,058	R4.0	56.0	35	R4.0035	0.65344	35.84	55.44	64.626840%	272,310	8,191,131	15,096,685	23,288,016	23,103,190
380	Process Equipment	2001	19.50	2,142,726	R2.0	45.0	43	R2.0043	0.63735	28.86	48.18	59.926775%	1,275,497	41,783,196	61,453,439	103,236,635	96,422,760
354.4	Electrical Wiring	2001	19.50	78,889	R4.0	55.0	35	R4.0035	0.65344	35.84	55.44	64.626840%	51,790	1,557,836	2,871,211	4,429,046	4,303,895
354.4	Electrical Equipment	2001	19.50	46,903	R4.0	55.0	35	R4.0035	0.65344	35.84	55.44	64.626840%	30,406	914,609	1,685,694	2,600,302	2,579,665
380	Process Equipment	2013	7.50	146,778	R2.0	45.0	17	R2.0017	0.84966	38.23	45.73	83.599388%	122,706	1,100,843	5,611,361	6,712,204	6,605,055
				6,505,605									**3,123,970**	**182,791,724**	**163,647,142**	**346,438,863**	**329,319,475**
354.4	Structure	1989	31.50	3,822,052	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	1,592,981	114,094,638	88,573,346	203,667,984	198,212,860
354.4	Structure	1969	51.50	1,187,714	R4.0	55.0	94	R4.0094	0.17719	9.75	61.25	15.918367%	189,065	61,167,271	11,580,212	72,747,483	65,324,270
380	Process Equipment	1968	51.50	13,841	R2.0	45.0	114	R2.0114	0.21577	9.71	61.21	15.863421%	2,196	712,812	134,396	847,208	622,845
354.4	Piping	1969	51.50	5,168	R4.0	55.0	94	R4.0094	0.17719	9.75	61.25	15.918367%	823	266,152	50,388	316,540	284,240
354.4	Electrical Wiring	1989	31.50	85,098	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	37,426	2,680,587	2,104,474	4,785,061	4,680,390
354.4	Electrical Equipment	1989	31.50	11,816	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	5,197	372,204	292,210	664,414	649,860
354.4	Electrical Equipment	1969	51.50	20,010	R4.0	55.0	94	R4.0094	0.17719	9.75	61.25	15.918367%	3,185	1,030,515	195,098	1,225,613	1,100,550
380	Process Equipment	1988	22.50	29,437	R2.0	45.0	50	R2.0050	0.58452	26.30	48.80	53.893443%	15,865	662,333	774,193	1,436,526	1,324,565
354.4	Structure	2008	12.50	352,477	R4.0	55.0	23	R4.0023	0.77089	42.40	54.90	77.231330%	272,223	4,405,963	14,945,025	19,350,987	19,386,235
				5,327,613									**2,118,961**	**185,292,475**	**119,649,342**	**305,041,816**	**292,585,935**
354.4	Structure	1961	29.50	1,621,258	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	762,284	47,827,111	42,444,534	90,271,645	89,169,190
354.4	Structure	1961	39.50	12,205,465	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	3,815,004	482,115,868	219,210,151	701,326,019	671,300,575
380	Process Equipment	1961	29.50	3,044,435	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	1,274,066	89,810,533	64,833,355	154,644,188	136,999,575
380	Process Equipment	1961	38.50	289,259	R2.0	45.0	86	R2.0086	0.33800	15.21	54.71	27.801133%	80,417	11,425,731	4,399,629	15,825,360	13,016,655
354.4	Piping	1961	29.50	536,654	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	299,346	18,781,293	16,667,602	35,448,895	35,015,970
354.4	Piping	1961	39.50	478,800	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	149,656	18,912,600	8,599,248	27,511,848	26,334,000
354.4	Electrical Wiring	1961	29.50	300,261	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	141,151	8,855,930	7,859,262	16,715,192	16,511,055
354.4	Electrical Wiring	1961	39.50	179,923	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	56,238	7,106,959	3,231,417	10,338,376	9,895,765
354.4	Electrical Equipment	1991	29.50	79,565	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	37,411	2,347,197	2,083,038	4,430,235	4,376,130
354.4	Electrical Equipment	1961	39.50	153,405	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	47,949	6,059,498	2,755,154	8,814,651	8,437,275
354.4	Structure	1989	31.50	315,371	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	138,700	9,934,187	7,799,125	17,733,311	17,345,405
354.4	Piping	1989	31.50	92,163	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	40,533	2,903,135	2,279,191	5,182,325	5,068,965
354.4	Electrical Equipment	1989	31.50	10,754	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	4,730	338,751	265,946	604,697	591,470
380	Polymer Mixers	1998	22.50	88,795	R2.0	45.0	50	R2.0050	0.58452	26.30	48.80	53.893443%	47,855	1,997,888	2,335,309	4,333,196	3,995,775
380	Sludge Feed Pumps	2016	4.50	66,906	R2.0	45.0	10	R2.0010	0.91060	40.98	45.48	90.105541%	60,286	301,077	2,741,808	3,042,885	3,010,770
380	P-23 Utility Pump	1998	21.50	17,793	R2.0	45.0	48	R2.0048	0.59840	26.97	48.47	55.642560%	9,900	382,550	479,877	862,427	800,685
380	P-24 Utility Pump	2000	20.50	17,203	R2.0	45.0	46	R2.0046	0.61446	27.65	48.15	57.424714%	9,879	352,662	475,663	828,324	774,135
354.4	Structure	2003	17.50	233,338	R4.0	55.0	32	R4.0032	0.66258	37.54	55.04	68.204942%	159,148	4,083,415	8,758,509	12,842,924	12,833,590
380	Process Equipment	2003	17.50	2,890,654	R2.0	45.0	39	R2.0039	0.66842	30.08	47.58	63.219840%	1,701,027	47,086,445	80,934,872	128,021,317	121,079,430
354.4	Piping	2003	17.50	494,400	R4.0	55.0	32	R4.0032	0.66258	37.54	55.04	68.204942%	337,205	8,652,000	18,559,776	27,211,776	27,192,000
354.4	Electrical Wiring	2003	17.50	462,870	R4.0	55.0	32	R4.0032	0.66258	37.54	55.04	68.204942%	315,700	8,100,225	17,376,140	25,476,365	25,457,850
354.4	Electrical Equipment	2003	17.50	20,992	R4.0	55.0	32	R4.0032	0.66258	37.54	55.04	68.204942%	14,318	367,360	788,040	1,155,400	1,154,560
380	Sludge Sampler	2004	16.50	24,461	R2.0	45.0	37	R2.0037	0.68419	30.79	47.29	65.108903%	15,926	403,507	753,154	1,156,761	1,100,745
364	N. Gas Flowmeter	2004	16.50	5,668	S2.0	30.0	55	S2.0055	0.49743	14.92	31.42	47.485678%	2,691	93,522	84,567	178,089	170,040
380	Process Equip	2004	16.50	275,050	R2.0	45.0	37	R2.0037	0.68419	30.79	47.29	65.108903%	179,082	4,538,325	8,468,790	13,007,115	12,377,250
354.4	Electric Equip	2004	16.50	80,700	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	42,530	1,001,550	2,344,234	3,345,784	3,338,500

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18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tapers @ 4.0%	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 [(20)+0.5]	Col (16)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	Col (24) * (27)	Col (24) - (26)	Col (24) / (29)	Col (26) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Electric Wiring	2004	16.50	48,156	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	34,441	811,074	1,898,405	2,709,479	2,709,580
354.4	Piping	2004	16.50	65,968	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	46,242	1,088,967	2,548,843	3,637,810	3,629,890
354.4	Structure	2004	16.50	25,644	R4.0	55.0	30	R4.0030	0.70211	38.62	55.12	70.065312%	17,968	423,126	990,371	1,413,497	1,410,420
380	Process Equip	2005	15.50	1,006,425	R2.0	45.0	34	R2.0034	0.70812	31.87	47.37	67.278868%	677,111	15,599,568	32,074,765	47,674,352	45,289,125
354.4	Piping	2005	15.50	9,133	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	6,566	141,562	362,489	504,050	502,315
354.4	Electric Equip	2005	15.50	25,335	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	18,220	392,893	1,005,546	1,398,439	1,393,425
354.4	Electric Wiring	2005	15.50	34,660	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	24,926	537,230	1,375,655	1,912,885	1,906,309
354.4	Structure	2005	15.50	131,313	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	94,434	2,035,352	5,211,813	7,247,164	7,222,215
380	Process Equip	2005	15.50	174,782	R2.0	45.0	34	R2.0034	0.70812	31.87	47.37	67.278868%	117,591	2,709,121	5,570,302	8,279,423	7,865,190
354.4	Electric Wiring	2005	15.50	118,630	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	83,875	1,807,765	4,629,045	6,436,810	6,414,650
380	Process Equip	2006	14.50	605,380	R2.0	45.0	32	R2.0032	0.72426	32.59	47.09	69.207900%	418,971	6,778,010	19,729,334	28,507,344	27,242,100
354.4	Structure	2006	14.50	374,323	R4.0	55.0	26	R4.0026	0.74138	40.78	55.28	73.769899%	276,138	5,427,684	15,264,992	20,692,575	20,587,765
354.4	Piping	2006	14.50	179,680	R4.0	55.0	26	R4.0026	0.74138	40.78	55.28	73.769899%	132,557	2,605,505	7,327,758	9,933,263	9,882,950
354.4	Electrical Equip	2006	14.50	23,573	R4.0	55.0	26	R4.0026	0.74138	40.78	55.28	73.769899%	17,380	341,809	961,307	1,303,115	1,296,515
354.4	Electrical Wiring	2006	14.50	22,388	R4.0	55.0	26	R4.0026	0.74138	40.78	55.28	73.769899%	16,516	324,626	912,963	1,237,809	1,231,340
354.4	Structure	2008	12.50	172,600	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	133,301	2,157,500	7,318,240	9,475,740	9,493,000
380	Process Equipment	2010	10.50	168,859	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	130,680	1,773,020	6,066,792	7,841,812	7,596,656
380	Process Equipment	2010	10.50	3,040,042	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	2,352,694	31,920,441	109,259,109	141,179,550	136,801,890
354.4	Piping	2010	10.50	1,132,392	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	916,522	11,890,116	50,482,035	62,372,151	62,281,560
354.4	Structure	2010	10.50	1,603,286	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	1,297,648	16,834,503	71,474,490	88,308,993	88,180,730
354.4	Electrical Wiring	2010	10.50	758,011	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	613,510	7,959,116	33,792,130	41,751,246	41,660,605
354.4	Electrical Equipment	2010	10.50	1,798,248	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	1,455,445	18,881,604	80,185,896	99,067,500	98,903,640
354.4	HVAC Equipment	2010	10.50	265,573	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	214,946	2,758,517	11,839,244	14,627,761	14,606,515
354.4	HVAC Piping/Duct	2010	10.50	284,301	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	230,104	2,985,161	12,674,139	15,659,299	15,636,555
354.4	Electrical Equipment	2011	9.50	35,555	R4.0	55.0	17	R4.0017	0.83047	45.66	55.18	82.783617%	29,434	337,773	1,624,152	1,961,925	1,955,525
354.4	Piping	2012	8.50	258,846	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	219,036	2,200,191	12,106,227	14,306,418	14,236,530
354.4	Structure	2012	8.50	16,658	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	14,096	141,593	779,095	920,688	916,190
354.4	Electrical Wiring	2012	8.50	2,826	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	2,391	24,021	132,172	156,193	155,430
380	Process Equipment	2012	8.50	23,242	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	18,944	197,557	870,645	1,068,202	1,045,890
380	(2)Blending units & (3) Centrifuge Pumps	2018	2.50	25,930	R2.0	45.0	6	R2.0006	0.94604	42.57	45.07	94.453073%	24,114	63,825	1,066,812	1,150,637	1,148,850
380	Centrifuge Rehabilitation	2014	6.50	74,557	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.838780%	53,099	484,621	2,937,545	3,422,166	3,355,085
354.4	Heat Trace Installation	2014	6.50	18,549	R4.0	55.0	12	R4.0012	0.88023	48.41	54.91	88.162446%	16,353	120,569	897,957	1,018,526	1,020,195
380	Sensidyne Gas Detection System	2014	6.50	20,245	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.838780%	17,378	131,593	797,653	929,246	911,025
354.4	Gas Detection/Alarm	2014	6.50	11,271	R4.0	55.0	12	R4.0012	0.88023	48.41	54.91	88.162446%	9,937	73,262	545,629	618,891	618,905
380	Capacitor	2014	6.50	9,386	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.838780%	8,059	61,022	369,887	430,909	422,460
354.4	Glass Lined Valves	2014	6.50	53,687	R4.0	55.0	12	R4.0012	0.88023	48.41	54.91	88.162446%	47,508	350,266	2,606,670	2,956,935	2,963,785
380	Vanton Pump	2015	5.50	20,381	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	17,928	112,096	819,112	931,208	917,145
380	Vaughn Pump HE	2015	5.50	21,876	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	19,243	120,318	879,196	999,514	984,420
380	Vaughn Vertical WW Pump	2015	5.50	17,404	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	15,309	95,722	699,467	795,189	783,180
380	VFD's	2015	5.50	15,210	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	13,379	83,655	611,290	694,945	684,450
380	Backwash Strainer	2015	5.50	26,010	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	22,879	143,055	1,045,342	1,188,397	1,170,450
380	Sulfuric Acid Tank	2015	5.50	40,791	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	35,881	224,351	1,639,390	1,863,741	1,835,595
380	Fairbanks Morse Pumps	2015	5.50	46,814	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	41,257	258,027	1,885,474	2,143,501	2,111,130
354.4	Gear Unit Repair	2016	4.50	80,690	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	74,101	363,105	4,083,721	4,446,826	4,437,950
354.4	Heat Trace Panel	2016	4.50	27,421	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	25,182	123,395	1,387,777	1,511,171	1,508,155
394	Wilo Sub Pump	2016	4.50	7,493	R3.0	20.0	23	R3.0023	0.77789	15.56	20.06	77.567298%	5,812	33,719	116,591	150,310	149,880
394	(3)Wilo Pumps	2016	4.50	25,112	R3.0	20.0	23	R3.0023	0.77789	15.56	20.06	77.567298%	19,479	113,004	390,743	503,747	502,240
394	(2) Wilo Pumps	2016	4.50	25,982	R3.0	20.0	23	R3.0023	0.77789	15.56	20.06	77.567298%	20,154	116,919	404,280	521,199	519,640
354.4	GBT Sample Pump	2016	4.50	13,962	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	12,822	62,829	706,817	769,646	767,910
354.4	Strainer	2016	4.50	14,930	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	13,711	67,185	755,607	822,792	821,150
354.4	Sump Pump	2016	4.50	33,938	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	31,167	152,721	1,717,602	1,870,323	1,866,590

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

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Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			Years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Iowa Curves Life Tables @ cor (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 ((20)+0.5)	Cor (18)	ALIS input	ALIS input	Cor (21) / (24)	Cor (26) & (25)	Cor (24) * (27)	Cor (21) + (28)	Cor (28) + (29)	Cor (29) * (30)	Cor (22) * (30)	Cor (22) * (21)	Cor (22) * (28)	Cor (22) * (29)	Cor (22) * (24)
Account	Description	Year	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Dodge Reducer	2016	4.50	25,153	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	23,099	113,189	1,272,993	1,386,162	1,383,415
354.4	Polymer Feed Pump	2016	4.50	17,016	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	15,627	76,572	861,180	937,752	935,880
				36,944,663									**19,949,132**	**830,439,964**	**1,053,299,801**	**1,983,739,751**	**1,911,248,300**
354.4	Structure	1954	66.50	4,659,267	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	698,890	309,841,256	38,438,953	348,280,208	256,259,565
354.4	Structure	1963	57.50	1,872,364	R4.0	55.0	105	R4.0105	0.15000	8.25	65.75	15.000000%	280,853	107,660,355	15,446,921	123,107,276	102,979,470
354.4	Structure	1981	39.50	156,003	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	48,761	6,162,119	2,801,814	8,963,932	8,580,165
354.4	Structure	1991	29.50	2,321,788	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	1,091,674	68,482,746	60,784,410	129,277,156	127,898,340
380	Process Equipment	1981	29.50	1,435,142	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	600,593	42,336,589	30,468,065	72,804,754	64,581,390
380	Process Equipment	1961	39.50	100,327	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	27,892	3,962,917	1,525,974	5,488,890	4,514,715
354.4	Piping	1991	29.50	122,996	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	57,831	3,628,382	3,220,035	6,848,417	6,764,780
354.4	Electrical Wiring	1991	29.50	1,190,456	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	559,737	35,118,452	31,166,136	66,284,588	65,475,080
354.4	Electrical Wiring	1981	39.50	2,155	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	674	85,123	38,704	123,826	118,525
354.4	Structure	1989	31.50	225,081	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	98,991	7,090,052	5,568,253	12,658,305	12,379,455
380	Process Equipment	1989	31.50	918,921	R2.0	45.0	70	R2.0070	0.44557	20.05	51.55	38.894277%	356,630	28,583,012	18,384,266	47,267,278	41,261,445
354.4	Piping	1989	31.50	262,959	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	115,650	8,283,209	6,502,976	14,786,185	14,462,745
354.4	Electrical Equipment	1989	31.50	107,574	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	47,311	3,388,581	2,660,305	6,048,886	5,916,570
354.4	Electrical Equipment	1991	29.50	9,151,331	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	4,302,835	269,964,265	239,581,846	509,546,110	503,323,205
354.4	UPS-Cogeneration	2002	18.50	23,226	R4.0	55.0	34	R4.0034	0.66313	36.47	54.97	66.345279%	15,409	429,681	847,052	1,276,733	1,277,430
354.4	Electrical Equipment	1981	39.50	1,350	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	422	53,325	24,246	77,571	74,250
354.4	VAX Upgrade	1995	25.50	70,354	R4.0	55.0	46	R4.0046	0.54887	30.19	55.69	54.210810%	38,139	1,784,027	2,123,987	3,918,014	3,869,470
354.4	Electrical Equipment	1997	23.50	24,171	R4.0	55.0	43	R4.0043	0.57696	31.73	55.23	57.450661%	13,886	568,019	766,946	1,334,964	1,329,405
380	Computer System	1999	21.50	1,936,317	R2.0	45.0	48	R2.0048	0.59940	26.97	48.47	55.642666%	1,077,418	41,630,816	52,222,469	93,853,285	87,134,265
354.4	HVAC Upgrade	1999	21.50	291,238	R4.0	55.0	39	R4.0039	0.61495	33.82	55.32	61.135213%	178,049	6,261,617	9,849,669	16,111,286	16,016,080
354.4	SCADAlarm System	2002	18.50	96,768	R4.0	55.0	34	R4.0034	0.66313	36.47	54.97	66.345279%	64,201	1,790,208	3,528,129	5,318,337	5,322,240
354.4	Electrical Wiring	2003	17.50	39,285	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	26,794	687,488	1,474,758	2,162,246	2,160,675
354.4	Electrical Equipment	2003	17.50	241,413	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	164,656	4,224,728	9,062,644	13,287,372	13,277,715
354.4	Electrical Equipment	2007	13.50	34,086	R4.0	55.0	25	R4.0025	0.75124	41.32	54.82	75.373951%	25,692	480,161	1,408,434	1,888,595	1,874,730
354.4	Structure	2008	12.50	284,895	R4.0	55.0	23	R4.0023	0.77089	42.40	54.90	77.231330%	220,028	3,561,188	12,079,548	15,640,736	15,869,225
354.4	Stucture	2010	10.50	469,323	R4.0	55.0	19	R4.0019	0.81061	44.56	55.08	80.936819%	379,855	4,927,892	20,922,419	25,850,311	25,612,755
354.4	Electrical Wiring	2010	10.50	218,617	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	176,942	2,295,479	9,745,946	12,041,424	12,023,936
354.4	Electrical Equipment	2010	10.50	144,992	R4.0	55.0	19	R4.0019	0.81061	44.56	55.08	80.936819%	117,352	1,522,416	6,463,743	7,986,159	7,974,560
380	Process Equipment	2010	10.50	42,188	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	32,634	442,764	1,515,518	1,958,282	1,897,560
380	Process Piping	2010	10.50	59,072	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	45,716	620,256	2,123,048	2,743,304	2,658,240
354.4	Piping	2011	9.50	48,906	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	40,486	464,607	2,234,026	2,698,633	2,689,830
354.4	Electrical Wiring	2011	9.50	236,080	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	195,436	2,242,760	10,784,134	13,026,894	12,884,400
354.4	Electrical Equipment	2011	9.50	27,062	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	22,403	257,089	1,236,192	1,493,281	1,488,410
354.4	Struct. (Breakroom Renovation)	2014	6.50	58,824	R4.0	55.0	12	R4.0012	0.86023	48.41	54.91	86.162448%	52,742	368,856	2,566,080	3,284,936	3,290,320
354.4	Struct. (Bathroom Renovation)	2014	6.50	20,899	R4.0	55.0	12	R4.0012	0.86023	48.41	54.91	86.162448%	18,249	134,544	1,002,039	1,136,582	1,138,445
				26,894,200									**11,194,631**	**969,855,079**	**608,898,688**	**1,578,553,758**	**1,434,281,530**
354.4	Structure	1990	30.50	339,653	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	155,380	10,365,517	8,730,824	19,096,340	18,691,915
354.4	Structure	1981	39.50	1,631,554	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	509,867	64,446,383	29,302,710	93,749,093	89,735,470
380	Process Equipment	1990	30.50	196,227	R2.0	45.0	68	R2.0068	0.45860	20.84	51.14	40.359797%	79,197	5,984,924	4,050,125	10,035,049	8,830,215
380	Process Equipment	1981	39.50	634,314	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	176,346	25,055,403	9,647,916	34,703,319	28,544,130
354.4	Piping	1990	30.50	20,570	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	9,405	627,385	528,443	1,155,828	1,131,350
354.4	Piping	1981	39.50	89,157	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	27,867	3,521,702	1,601,260	5,122,961	4,903,635
354.4	Electrical Wiring	1990	30.50	27,353	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	12,506	834,267	702,699	1,536,965	1,504,415
354.4	Electrical Wiring	1981	39.50	57,035	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	17,827	2,252,683	1,024,349	3,277,231	3,136,925
354.4	Electrical Equipment	1990	30.50	4,616	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	2,110	140,768	116,585	259,373	253,860
354.4	Electrical Equipment	1981	39.50	23,710	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	7,411	936,545	425,832	1,362,377	1,304,050

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Iowa Curves Life Factors @ var (28)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assets	Eng Assets	Eng Assets	ADJ1 ((20)+0.5)	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	Col (24) * (27)	Col (24) * (28)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age/P	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
380	Process Equipment	2010	10.50	231,440	R2.0	45.0	23	R2.0023	0.79861	35.84	46.44	77.390181%	179,112	2,430,120	8,317,954	10,748,074	10,414,800
380	Grav. Belt Thick. Sludge Pumps	2019	1.50	31,565	R2.0	45.0	3	R2.0003	0.97291	43.75	45.28	96.687279%	30,518	47,348	1,381,916	1,429,263	1,420,425
				3,287,384									**1,607,647**	**116,643,255**	**65,832,613**	**182,475,873**	**169,871,210**
354.4	Structure	1991	29.50	1,007,515	R4.0	55.0	54	R4.0054	0.47598	28.18	55.68	47.018678%	473,720	29,721,683	26,376,743	56,098,435	55,413,325
354.4	Structure	1981	39.50	373,885	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	116,863	14,768,458	6,714,975	21,483,432	20,563,675
354.4	Structure	1968	52.50	1,832,581	R4.0	55.0	95	R4.0095	0.17164	9.44	61.94	15.240555%	279,297	96,211,028	17,299,659	113,510,687	100,792,505
354.4	Structure	2006	12.50	348,710	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	269,313	4,358,875	14,785,304	19,144,179	19,179,050
380	Process Equipment	2011	9.50	274,404	R2.0	45.0	21	R2.0021	0.81550	36.70	46.20	79.437229%	217,879	2,606,836	10,070,627	12,677,465	12,348,180
354.4	Piping	2011	9.50	358,267	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	296,586	3,403,537	16,365,637	19,769,173	19,704,685
354.4	Structure	2011	9.50	609,291	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	504,393	5,788,265	27,832,413	33,620,677	33,511,005
354.4	Electrical Wiring	2011	9.50	452,154	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	374,309	4,295,463	20,654,395	24,949,858	24,868,470
354.4	Electrical Equipment	2011	9.50	5,084,387	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	4,209,023	48,301,487	232,253,885	280,555,371	279,640,185
354.4	Biogas Piping Improvement	2017	3.50	153,082	R4.0	55.0	6	R4.0006	0.94008	51.70	55.20	93.659420%	143,385	535,822	7,914,856	8,450,678	8,420,060
				10,494,276									**8,884,856**	**209,991,466**	**380,286,494**	**590,259,955**	**574,441,140**
354.4	Structure	1968	52.50	190,734	R4.0	55.0	95	R4.0095	0.17164	9.44	61.94	15.240555%	29,069	10,013,535	1,800,529	11,814,064	10,490,370
371.2	Process Equipment	1968	52.50	307,404	R3.0	35.0	150	R3.0150	0.15000	5.25	57.75	15.000000%	46,111	16,138,710	1,613,871	17,752,581	10,758,140
371.2	Pressurization Water Pump	2002	18.50	25,873	R3.0	35.0	53	R3.0053	0.51325	17.96	36.46	49.259462%	12,646	474,951	461,087	936,038	898,555
371.2	Pressurization Water Pump	2003	17.50	24,992	R3.0	35.0	50	R3.0050	0.53792	18.83	36.33	51.830443%	12,953	437,360	470,599	907,959	874,720
354.4	Piping	1968	52.50	45,719	R4.0	55.0	95	R4.0095	0.17164	9.44	61.94	15.240555%	6,968	2,400,248	431,587	2,831,835	2,514,545
				594,522									**107,747**	**29,464,804**	**4,777,673**	**34,242,477**	**25,537,330**
354.4	Structure	1954	66.50	334,887	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	50,233	22,269,986	2,762,818	25,032,803	18,418,785
354.4	Structure	1961	39.50	22,700	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	7,095	896,650	407,692	1,304,342	1,248,500
354.4	Structure	1991	29.50	1,036,299	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	487,254	30,570,821	27,130,306	57,701,128	56,996,445
354.4	Electrical Wiring	1991	29.50	78,558	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	36,939	2,320,706	2,059,528	4,380,234	4,326,740
354.4	Electrical Equipment	1991	29.50	57,160	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	26,876	1,688,220	1,496,449	3,182,669	3,143,800
354.4	Structure	2011	9.50	101,614	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	84,120	965,333	4,641,728	5,607,061	5,586,770
380	Process Equipment	2012	8.50	264,796	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	215,824	2,250,766	9,919,258	12,170,024	11,915,820
354.4	Piping	2012	8.50	19,887	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	16,829	167,340	920,761	1,088,100	1,082,785
354.4	Structure	2012	8.50	99,193	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	83,936	843,141	4,639,257	5,482,397	5,455,615
354.4	Electrical Wiring	2012	8.50	45,869	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	38,862	386,557	2,136,675	2,525,231	2,512,895
				2,060,693									**1,047,650**	**62,359,320**	**56,114,674**	**116,473,968**	**110,890,155**
354.4	Structure	1954	66.50	6,522,979	R4.0	55.0	121	R4.0121	0.15000	8.25	74.75	15.000000%	978,447	433,778,037	53,814,569	487,592,606	358,763,790
354.4	Structure	1990	30.50	790,577	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	361,497	24,115,649	20,312,492	44,428,141	43,487,235
354.4	Structure	1981	39.50	47,521	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	14,885	1,881,030	855,273	2,736,303	2,619,155
380	Process Equipment	1990	30.50	2,583,650	R2.0	45.0	68	R2.0068	0.45860	20.64	51.14	40.359797%	1,042,756	78,801,325	53,326,536	132,127,861	116,264,250
354.4	Electrical Wiring	1981	39.50	43,279	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	13,528	1,709,521	777,291	2,486,811	2,380,345
354.4	Electrical Equipment	1981	39.50	92,729	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	28,984	3,662,796	1,665,413	5,328,208	5,100,095
354.4	Electrical Equipment	1990	30.50	159,160	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	72,768	4,854,380	4,088,820	8,943,200	8,753,800
354.4	Piping	1985	25.50	87,751	R4.0	55.0	46	R4.0046	0.54887	30.19	55.69	54.210810%	47,571	2,237,651	2,649,203	4,886,853	4,826,305
364	Sludge Flow Meter	2001	19.50	19,974	S2.0	30.0	65	S2.0065	0.42974	12.89	32.39	39.796233%	7,949	389,493	257,465	646,958	599,220
354.4	Structure	2003	17.50	15,466	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	10,570	271,215	581,795	853,010	852,390
380	Process Equipment	2003	17.50	495,910	R2.0	45.0	39	R2.0039	0.66842	30.06	47.56	63.218540%	313,514	8,678,425	14,916,973	23,595,398	22,315,950
354.4	Piping	2003	17.50	407,638	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	278,029	7,133,665	15,302,731	22,436,396	22,420,090
354.4	Electrical Wiring	2003	17.50	113,553	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	77,449	1,987,178	4,262,780	6,249,957	6,245,415
354.4	Electrical Equipment	2003	17.50	81,398	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	55,517	1,424,465	3,055,681	4,480,146	4,476,890
354.4	Structure	2008	12.50	1,294,031	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	999,397	16,175,388	54,866,914	71,042,302	71,171,705
380	Sludge Transfer Pump	2009	11.50	83,921	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	63,081	965,092	2,921,290	3,886,382	3,775,445

Appendix A-5-1 (AUS)

S:\water industry\PA American City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Values @ col (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021-[(20)+0.5]	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	IowaLookup	Col (24) * (27)	Col (27) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Years	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
380	Digester Recycle pump	2009	11.50	83,921	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	63,081	965,092	2,921,290	3,886,382	3,776,445
380	Digester 3 Transfer Pump Piping	2009	11.50	100,737	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	75,721	1,158,476	3,506,655	4,665,130	4,533,165
380	Digester 3 Sludge Recycle Piping	2009	11.50	55,645	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	41,827	639,918	1,937,002	2,576,920	2,504,025
380	Digester 3 Rehab	2009	11.50	402,948	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	302,885	4,633,902	14,026,620	18,660,522	18,132,560
380	Digester Mixing System	2009	11.50	154,272	R2.0	45.0	26	R2.0026	0.77352	34.81	46.31	75.167350%	115,962	1,774,128	5,370,206	7,144,336	6,942,240
380	Process Equipment	2010	10.50	325,782	R2.0	45.0	23	R2.0023	0.79651	35.94	46.44	77.390181%	252,123	3,420,711	11,708,605	15,129,316	14,660,190
354.4	Piping	2010	10.50	985,551	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	797,674	10,346,296	43,935,864	54,284,149	54,205,305
354.4	Structure	2010	10.50	845,467	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	684,294	8,877,404	37,690,919	46,568,322	46,500,585
354.4	Electrical Wiring	2010	10.50	280,517	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	227,042	2,945,429	12,505,448	15,450,876	15,426,435
354.4	Electrical Equipment	2010	10.50	36,997	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	32,372	419,969	1,783,066	2,203,035	2,199,835
354.4	HVAC Piping/ductwork	2010	10.50	118,288	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	95,739	1,242,024	5,273,279	6,515,303	6,505,840
380	Dig. 2 Vaughan Pump Rehab	2013	7.50	25,806	R2.0	45.0	17	R2.0017	0.84966	38.23	45.73	83.599368%	21,574	193,545	866,563	1,160,108	1,161,270
354.4	Valve	2015	5.50	33,427	R4.0	55.0	10	R4.0010	0.90017	49.51	55.01	90.001816%	30,085	183,849	1,654,971	1,838,819	1,838,485
364	Five Digester Biogas Flow Meters	2015	5.50	41,140	S2.0	30.0	18	S2.0018	0.82067	24.62	30.12	81.739706%	33,628	226,270	1,012,867	1,239,137	1,234,200
380	Digester and Sludge Valves	2014	6.50	123,182	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.836780%	105,738	800,683	4,863,371	5,664,054	5,643,190
				16,458,448									**7,243,687**	**625,884,996**	**382,821,854**	**1,008,715,841**	**959,219,050**
354.4	Structure	1981	39.50	454,372	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	142,021	17,947,694	8,160,521	26,108,215	24,990,460
380	Process Equipment	1981	39.50	377,554	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	104,964	14,913,363	5,742,596	20,655,979	16,989,930
354.4	Piping	1981	39.50	13,406	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	4,190	529,537	240,772	770,309	737,330
				845,332									**251,175**	**33,390,614**	**14,143,889**	**47,534,503**	**42,717,720**
354.4	Structure	1981	39.50	336,898	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	105,303	13,307,471	6,050,668	19,358,159	18,529,390
380	Process Equipment	1981	39.50	60,282	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	16,759	2,381,139	916,889	3,298,028	2,712,690
354.4	Piping	1981	39.50	94,075	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	29,405	3,715,963	1,689,587	5,405,550	5,174,125
354.4	Electrical Wiring	1981	39.50	8,628	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	2,697	340,806	154,959	495,765	474,540
354.4	Electrical Equipment	1981	39.50	44,068	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	13,780	1,741,476	791,820	2,533,296	2,424,840
				543,971									**167,944**	**21,486,855**	**9,603,943**	**31,090,798**	**29,315,585**
354.4	Structure	1981	39.50	329,285	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	102,923	13,006,758	5,913,959	18,920,716	18,110,675
380	Process Equipment	1981	39.50	1,745,279	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	485,207	68,938,521	26,545,694	95,484,214	78,537,555
354.4	Piping	1981	39.50	3,830	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	1,197	151,285	68,787	220,072	210,650
				2,078,394									**589,327**	**82,096,564**	**32,528,440**	**114,625,002**	**96,858,880**
354.4	5000 Amp Bus	2018	2.50	64,190	R4.0	55.0	5	R4.0005	0.95006	52.25	54.75	95.433790%	61,259	160,475	3,353,926	3,514,403	3,530,450
354.4	5000 Amp Bus	2018	4.50	63,694	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	58,493	286,623	3,223,553	3,510,176	3,503,170
				127,884									**119,752**	**447,098**	**6,577,481**	**7,024,579**	**7,033,620**
354.4	Electrical Wiring	2020	0.50	455,635	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	451,499	227,818	24,809,326	25,037,143	25,059,925
354.4	Electrical Equipment	2020	0.50	1,073,922	R4.0	55.0	1	R4.0001	0.99001	54.45	54.95	99.090082%	1,064,150	536,961	58,475,053	59,012,014	59,065,710
				1,529,557									**1,515,639**	**764,779**	**83,284,379**	**84,049,157**	**84,125,635**
354.4	Electrical Wiring	1969	31.50	55,800	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	24,541	1,757,700	1,379,934	3,137,634	3,069,000
354.4	Electrical Equipment	1969	31.50	781,465	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	348,087	24,931,148	19,572,929	44,504,077	43,530,575
354.4	Electrical Equipment	1996	24.50	7,598	R4.0	55.0	45	R4.0045	0.55819	30.70	55.20	55.615842%	4,226	186,151	233,259	419,410	417,890
				854,863									**376,854**	**26,874,999**	**21,186,122**	**48,061,121**	**47,017,465**
354.4	Structure	1991	29.50	135,483	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	63,702	3,996,749	3,546,945	7,543,693	7,451,565
354.4	Structure	1981	39.50	122,099	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	38,164	4,822,911	2,192,898	7,015,809	6,715,445
380	Process Equipment	1991	29.50	156,361	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	65,436	4,612,650	3,319,544	7,932,194	7,036,245
380	Process Equipment	1981	39.50	15,620	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	4,343	616,990	237,580	854,570	702,900

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18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Enter or Lookup Iowa Curves Life Issues @ cor (%)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021-[(20)+0.5]	Col (16)	AUS Input	AUS Input	Col (21) /(24)	Col (23) & (25)	Col (24) * (27)	Col (21) = (28)	Col (28) / (29)	Col (28) * (30)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Piping	1991	29.50	24,102	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	11,332	711,009	630,990	1,341,999	1,325,610
354.4	Piping	1981	39.50	25,678	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	8,026	1,014,281	461,177	1,475,458	1,412,290
354.4	Electrical Wiring	1991	29.50	11,208	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	5,270	330,666	293,452	624,117	616,485
354.4	Electrical Wiring	1981	39.50	2,140	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	668	84,530	38,434	122,964	117,700
354.4	Electrical Equipment	1991	29.50	7,108	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	3,342	209,666	186,067	395,773	390,940
354.4	Electrical Equipment	1981	39.50	80,477	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	25,154	3,178,842	1,445,367	4,624,208	4,426,235
380	Process Equipment	2010	10.50	55,171	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	42,697	579,296	1,982,846	2,562,141	2,482,695
354.4	Piping	2010	10.50	1,960	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	1,586	20,580	87,377	107,957	107,800
354.4	Structure	2010	10.50	9,505	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	7,693	99,803	423,733	523,535	522,775
354.4	Electrical Wiring	2010	10.50	3,577	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	2,896	37,559	159,463	197,021	196,739
				650,490									**280,309**	**20,315,552**	**15,005,893**	**35,321,439**	**33,505,430**
354.4	Structure	1986	32.50	171,230	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	72,332	5,564,975	4,070,137	9,635,112	9,417,650
380	Process Equipment	2019	1.50	57,869	R2.0	45.0	3	R2.0003	0.97291	43.78	45.28	96.687279%	55,952	86,804	2,533,505	2,620,308	2,604,105
354.4	Piping	1988	32.50	40,075	R4.0	55.0	59	R4.0058	0.43225	23.77	56.27	42.242758%	16,929	1,302,438	952,583	2,255,020	2,204,125
354.4	Electrical Wiring	1988	32.50	16,238	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	6,859	527,735	385,977	913,712	893,090
354.4	Electrical Equipment	1988	32.50	3,643	R4.0	55.0	59	R4.0058	0.43225	23.77	56.27	42.242758%	1,539	118,398	86,594	204,992	200,365
380	Scum Pump	2014	6.50	15,596	R2.0	45.0	14	R2.0014	0.87560	39.40	45.90	85.838780%	13,387	101,374	614,482	715,856	701,820
				304,851									**165,998**	**7,701,724**	**8,643,278**	**16,345,000**	**16,021,155**
354.4	Structure	1988	32.50	47,362	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	20,007	1,539,265	1,125,795	2,665,060	2,604,910
380	Process Equipment	1988	32.50	63,854	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463821%	23,926	2,075,580	1,243,432	3,319,012	2,873,880
354.4	Piping	1988	32.50	25,502	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	10,773	825,815	606,183	1,434,998	1,402,610
354.4	Electric Wiring	1988	32.50	9,359	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	3,953	304,168	222,463	526,631	514,745
354.4	Electrical Equipment	1988	32.50	3,643	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	1,539	118,398	86,594	204,992	200,365
				149,730									**80,198**	**4,866,226**	**3,284,467**	**8,150,693**	**7,596,510**
354.4	Structure	1988	32.50	36,432	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	15,390	1,184,040	865,969	2,050,029	2,003,760
380	Process Equipment	1988	32.50	17,030	R2.0	45.0	72	R2.0072	0.43275	19.47	51.97	37.463821%	6,380	553,475	331,574	885,049	766,350
380	Gorman Rupp Pump	2002	18.50	9,986	R2.0	45.0	41	R2.0041	0.65281	29.38	47.88	61.361738%	6,129	184,778	293,447	478,225	449,460
354.4	Electrical Wiring	1988	32.50	8,126	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	3,433	264,160	193,203	457,363	447,040
354.4	Electrical Equipment	1988	32.50	3,643	R4.0	55.0	59	R4.0059	0.43225	23.77	56.27	42.242758%	1,539	118,398	86,594	204,992	200,365
				75,221									**32,871**	**2,304,851**	**1,770,807**	**4,075,658**	**3,866,975**
354.4	Structure	1981	39.50	390,974	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	122,205	15,443,473	7,021,893	22,465,366	21,503,570
380	Process Equipment	1981	39.50	43,065	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	11,973	1,701,068	655,019	2,356,086	1,937,925
354.4	Piping	1981	39.50	65,141	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	20,361	2,573,070	1,169,932	3,743,002	3,582,755
354.4	Electrical Equipment	1981	39.50	8,628	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	2,697	340,806	154,959	495,765	474,540
				507,808									**157,236**	**20,058,417**	**9,001,803**	**29,060,219**	**27,498,790**
354.4	Structure	1990	30.50	814,697	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	372,570	24,854,359	20,934,704	45,789,062	44,819,335
380	Process Equipment	2019	1.50	734,051	R2.0	45.0	3	R2.0003	0.97291	43.78	45.28	96.687279%	709,734	1,101,077	32,136,759	33,237,829	33,032,295
354.4	Electrical Wiring	1990	30.50	21,066	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	9,631	642,513	541,166	1,183,699	1,158,630
354.4	Electrical Equipment	1990	30.50	8,244	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	3,769	251,442	211,788	463,230	453,420
380	Process Equipment	2010	10.50	260,575	R2.0	45.0	23	R2.0023	0.79861	35.94	46.44	77.390181%	201,659	2,736,038	9,365,066	12,101,103	11,725,875
354.4	Electrical Wiring	2010	10.50	2,205	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	1,785	23,153	98,299	121,451	121,275
				1,841,038									**1,299,148**	**29,608,582**	**63,287,796**	**92,896,374**	**91,310,830**
354.4	Structure	1990	30.50	15,681	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	7,169	478,271	402,845	881,115	862,456
354.4	Piping	1990	30.50	855	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	391	19,978	16,827	36,804	36,025

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Iowa Curves Life Tables @ age (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 (20)+0.5[	Col (18)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	Col (24) * (27)	Col (21) + (28)	Col (26) / (29)	Col (22) * (30)	Col (22) * (31)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)	
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL	
354.4	Electrical Wiring	1990	30.50	6,415	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	2,933	195,658	164,801	360,458	352,825	
354.4	Structure	2003	17.50	153,268	R4.0	55.0	32	R4.0032	0.68256	37.54	55.04	68.204942%	104,536	2,682,190	5,753,681	8,435,871	8,429,740	
				176,019									**114,937**	**3,376,097**	**6,338,154**	**9,714,249**	**9,681,045**	
354.4	Structure	1954	66.50	17,462	R4.0	55.0	121	R4.0121	0.15000	6.25	74.75	15.000000%	2,619	1,161,223	144,062	1,305,285	960,410	
354.4	Structure	1961	29.50	33,372	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.019678%	15,691	984,474	873,679	1,858,153	1,835,460	
354.4	Electrical Wiring	1991	29.50	5,857	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.019678%	2,754	172,782	153,336	326,118	322,135	
				56,691									**21,064**	**2,318,479**	**1,171,077**	**3,489,556**	**3,118,005**	
354.4	Structure	1981	39.50	35,628	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	11,136	1,407,306	639,879	2,047,185	1,958,540	
354.4	Piping	1981	39.50	20,397	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	6,375	805,682	366,330	1,172,012	1,121,835	
				56,025									**17,511**	**2,212,988**	**1,006,209**	**3,219,197**	**3,081,375**	
354.4	Structure	1981	39.50	35,628	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	11,136	1,407,306	639,879	2,047,185	1,958,540	
354.4	Piping	1981	39.50	20,397	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	6,375	805,682	366,330	1,172,012	1,121,835	
				56,025									**17,511**	**2,212,988**	**1,006,209**	**3,219,197**	**3,081,375**	
354.4	Structure	1981	39.50	93,275	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	29,155	3,684,363	1,675,219	5,359,582	5,130,125	
380	Process Equipment	1981	39.50	35,290	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	9,811	1,393,955	536,761	1,930,716	1,568,050	
354.4	Piping	1981	39.50	137,665	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	43,029	5,437,768	2,472,443	7,910,231	7,571,575	
				266,230									**81,995**	**10,516,086**	**4,684,443**	**15,200,529**	**14,289,750**	
354.4	Structure	1990	30.50	385	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	176	11,743	9,861	21,633	21,175	
354	Flow Meter	1990	30.50	18,300	S2.0	30.0	102	S2.0102	0.24561	7.37	37.87	19.461315%	3,561	558,150	134,871	693,021	549,000	
354.4	Electrical Wiring	1990	30.50	2,133	R4.0	55.0	55	R4.0055	0.46712	25.69	56.19	45.719879%	975	65,057	54,797	119,853	117,315	
				20,818									**4,712**	**634,950**	**199,559**	**834,507**	**687,490**	
354.4	Structure	1961	39.50	75,617	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	23,635	2,986,872	1,358,081	4,344,953	4,158,935	
354.4	Piping	1961	39.50	68,229	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	21,326	2,695,046	1,225,393	3,920,438	3,752,595	
354.4	Electrical Wiring	1961	39.50	2,370	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	741	93,615	42,565	136,180	130,350	
354.4	Electrical Equipment	1981	39.50	16,748	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	5,235	661,546	300,794	962,340	921,140	
380	Process Equipment	2004	16.50	128,169	R2.0	45.0	37	R2.0037	0.68419	30.79	47.29	65.108903%	83,449	2,114,789	3,948,324	6,061,112	5,767,605	
				291,133									**134,386**	**8,551,869**	**6,873,157**	**15,425,023**	**14,730,625**	
354.4	Structure	1969	31.50	1,130,293	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	497,104	35,604,230	27,952,146	63,556,375	62,166,115	
394	Process Equipment	1969	31.50	345,084	R3.0	20.0	158	R3.0158	0.15000	3.00	34.50	15.000000%	51,763	10,870,146	1,035,252	11,905,398	6,901,680	
354.4	Piping	1969	31.50	128,980	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	56,726	4,062,870	3,189,675	7,252,545	7,093,900	
354.4	Electrical Wiring	1969	31.50	65,864	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	28,879	2,066,416	1,623,871	3,692,287	3,611,520	
354.4	Electrical Equipment	1969	31.50	21,508	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	9,459	677,502	531,893	1,209,395	1,182,940	
394	Lab Dishwasher	1999	21.50	12,083	R3.0	20.0	108	R3.0108	0.16718	3.34	24.84	15.000000%	1,812	259,785	40,857	300,642	241,660	
394	Operator's WEStation	2000	20.50	53,699	R3.0	20.0	103	R3.0103	0.18608	3.76	24.26	15.498753%	8,322	1,100,707	201,886	1,302,592	1,079,860	
394	Fume Hood	2004	16.50	6,492	R3.0	20.0	83	R3.0083	0.29508	5.90	22.40	26.339286%	1,710	107,118	38,303	145,421	129,840	
354.4	Structure (Flooring)	2007	13.50	15,915	R4.0	55.0	25	R4.0025	0.75124	41.32	54.82	75.373951%	11,996	214,853	657,808	872,660	875,325	
394	Spectrophoto (AA)	2007	13.50	91,700	R3.0	20.0	68	R3.0068	0.39710	7.94	21.44	37.033582%	33,960	1,237,950	728,098	1,966,048	1,834,000	
394	Spectrophoto (PO4)	2007	13.50	22,320	R3.0	20.0	68	R3.0068	0.39710	7.94	21.44	37.033582%	8,266	301,320	177,221	478,541	446,400	
394	Process Equipment	2008	12.50	35,013	R3.0	20.0	63	R3.0063	0.43441	8.69	21.19	41.009810%	14,359	437,663	304,263	741,925	700,260	
394	Laboratory Equipment	2009	11.50	22,256	R3.0	20.0	58	R3.0058	0.47316	9.46	20.96	45.133586%	10,045	255,944	210,542	466,486	445,120	
394	Process Equipment	2009	11.50	13,144	R3.0	20.0	58	R3.0058	0.47316	9.46	20.96	45.133586%	5,932	151,156	124,342	275,498	262,880	
354.4	Piping	2009	11.50	1,927	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	1,524	22,161	83,805	105,966	105,985	
354.4	Structure	2009	11.50	784,865	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	620,743	9,026,178	34,134,649	43,160,826	43,158,675	
354.4	Electrical Wiring	2009	11.50	64,380	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	50,916	740,376	2,799,886	3,540,256	3,540,900	

Pennsylvania American Water Company
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Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
input	input	input	Calculation	Calculation	input	input	Calculation	Calculation	Lookup	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021-((20)+0.5)	Col (18)	AUS input	AUS input	Col (21) / (24)	Col (23) & (25)	Lookup Iowa Curves Life Tables @ col (26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
354.4	Electrical Equipment	2009	11.50	21,393	R4.0	56.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	16,919	246,020	930,382	1,176,401	1,176,615
354.4	HVAC Equipment	2009	11.50	393,715	R4.0	55.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	311,378	4,527,723	17,122,665	21,650,368	21,654,325
354.4	HVAC Piping/Ductwork	2009	11.50	184,727	R4.0	56.0	21	R4.0021	0.79078	43.49	54.99	79.087107%	146,095	2,124,361	8,033,777	10,158,138	10,159,985
354.4	UV Communication Boards (3)	2014	6.50	32,370	R4.0	56.0	12	R4.0012	0.88023	46.41	54.91	88.162448%	28,538	210,405	1,567,032	1,777,437	1,780,350
390	Servers for GE Plant Operation System	2014	6.50	20,943	R3.0	12.0	54	R3.0054	0.50513	6.06	12.56	48.248408%	10,105	136,130	126,915	263,044	251,318
390	PI Server and System Upgrades	2014	6.50	30,691	R3.0	12.0	54	R3.0054	0.50513	6.06	12.56	48.248408%	14,808	199,492	185,987	385,479	368,292
390	PI Server and System Upgrades	2014	6.50	14,520	R3.0	12.0	54	R3.0054	0.50513	6.06	12.56	48.248408%	7,006	94,380	87,991	182,371	174,240
394	Kjeltec 8200 Distillation Unit	2014	6.50	14,526	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	9,854	94,419	199,151	293,570	290,520
394	Lab Duct Coil	2014	6.50	22,515	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	15,274	146,348	308,681	455,028	450,300
394	Supply and Return Line	2014	6.50	16,641	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	11,289	108,167	228,148	336,315	332,820
394	Wilo pumps (2)	2014	6.50	13,390	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	9,083	87,035	183,577	270,612	267,800
394	Wash Water Pump	2014	6.50	7,638	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	5,181	49,647	104,717	154,364	152,760
394	Wilo Pump (1)	2014	6.50	16,605	R3.0	20.0	33	R3.0033	0.68563	13.71	20.21	67.837704%	11,264	107,933	227,655	335,587	332,100
394	EAM Software	2015	5.50	20,442	R3.0	20.0	28	R3.0028	0.73133	14.63	20.13	72.677596%	14,857	112,431	299,066	411,497	408,840
394	6 System Workstation	2015	5.50	19,757	R3.0	20.0	28	R3.0028	0.73133	14.63	20.13	72.677596%	14,359	108,664	289,045	397,708	395,140
394	Fume Hood	2018	2.50	18,204	R3.0	20.0	13	R3.0013	0.87314	17.46	19.96	87.474950%	15,924	45,510	317,842	363,352	364,080
354.4	Computer	2016	4.50	11,183	R4.0	56.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	10,270	50,324	565,972	616,295	615,065
354.4	Computer	2016	4.50	11,059	R4.0	55.0	8	R4.0008	0.92012	50.61	55.11	91.834513%	10,156	49,766	559,696	609,461	608,245
394	Lab Glassware	2016	4.50	18,559	R3.0	20.0	23	R3.0023	0.77789	15.56	20.06	77.567298%	14,396	83,516	288,778	372,294	371,180
				3,704,215									**2,090,272**	**75,720,640**	**105,460,874**	**181,181,502**	**173,835,033**
354.4	Structure	1989	31.50	45,136	R4.0	56.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	19,851	1,421,764	1,116,213	2,537,997	2,482,480
354	Process Equipment	1989	31.50	14,936	S2.0	30.0	105	S2.0105	0.23423	7.03	38.53	18.245523%	2,725	470,484	105,000	575,484	448,080
364	Flow Meter	2002	18.50	10,825	S2.0	30.0	62	S2.0062	0.44912	13.47	31.97	42.133250%	4,561	200,263	145,813	346,075	324,750
				70,897									**27,137**	**2,092,531**	**1,367,026**	**3,459,556**	**3,255,310**
354.4	Structure	1981	39.50	1,551,350	R4.0	56.0	72	R4.0072	0.32857	17.96	57.46	31.256526%	484,898	61,278,325	27,862,246	89,140,571	86,324,250
354.4	Structure	1991	29.50	10,617,375	R4.0	56.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	4,992,149	313,212,563	277,962,878	591,175,440	583,955,625
380	Process Equipment	1981	39.50	4,086,393	R2.0	45.0	88	R2.0088	0.33800	15.21	54.71	27.801133%	1,136,064	161,412,524	62,154,038	223,566,561	183,887,685
380	Process Equipment	1991	29.50	13,024	R2.0	45.0	66	R2.0066	0.47183	21.23	50.73	41.849005%	5,450	384,208	276,500	660,708	586,080
354.4	Piping	1991	29.50	12,411,784	R4.0	56.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	5,835,857	366,147,628	324,940,505	691,088,133	682,648,120
354.4	Electrical Wiring	1981	39.50	1,433,747	R4.0	56.0	72	R4.0072	0.32857	17.96	57.46	31.256526%	448,140	56,633,007	25,750,096	82,383,103	78,856,085
354.4	Electrical Wiring	1991	29.50	7,257,752	R4.0	56.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	3,412,499	214,103,684	190,007,947	404,111,631	399,176,360
354.4	Electrical Wiring	2002	18.50	70,560	R4.0	56.0	34	R4.0034	0.66313	36.47	54.97	66.345279%	46,813	1,305,360	2,573,323	3,878,683	3,880,800
354.4	Electrical Equipment	1981	39.50	242,211	R4.0	55.0	72	R4.0072	0.32857	17.96	57.46	31.256526%	75,707	9,567,335	4,350,110	13,917,444	13,321,605
354.4	Piping	1989	31.50	370,013	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	162,732	11,655,410	9,150,421	20,805,831	20,350,715
354.4	Paving	1989	31.50	13,954	R4.0	55.0	57	R4.0057	0.44956	24.73	56.23	43.980082%	6,137	439,551	345,082	784,633	767,470
354.4	Electrical Equipment	1991	29.50	773,977	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	363,914	22,832,322	20,262,718	43,095,039	42,568,735
354.4	Train 3 Forcemain	2001	19.50	732,974	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	475,164	14,292,993	26,343,086	40,636,079	40,313,570
354.4	Level Sensors	2001	19.50	19,293	R4.0	55.0	35	R4.0035	0.65344	35.94	55.44	64.826840%	12,507	376,214	693,390	1,069,604	1,061,115
354.4	Structure	2003	17.50	111,061	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	75,749	1,943,568	4,169,230	6,112,797	6,108,355
354.4	Piping	2003	17.50	74,563	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	50,856	1,304,853	2,799,095	4,103,948	4,100,965
354.4	Paving	2003	17.50	18,121	R4.0	55.0	32	R4.0032	0.68258	37.54	55.04	68.204942%	12,359	317,118	680,262	997,380	996,655
380	Equipment	2003	17.50	13,181	R2.0	45.0	39	R2.0039	0.65842	30.08	47.58	63.219840%	8,333	230,668	396,484	627,152	593,145
354.4	Paving	2005	15.50	71,452	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	51,385	1,107,506	2,835,930	3,943,436	3,929,860
354.4	Structure	2005	15.50	17,166	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	12,345	266,073	681,319	947,392	944,130
354.4	Electric Equip	2005	15.50	7,430	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	5,343	115,165	294,897	410,062	408,650
354.4	Hot Water Piping	2006	14.50	96,079	R4.0	55.0	26	R4.0026	0.74138	40.78	55.28	73.768690%	70,877	1,393,146	3,918,102	5,311,247	5,284,345
380	Process Equipment	2008	12.50	77,629	R2.0	45.0	28	R2.0028	0.75696	34.06	46.56	73.152921%	56,788	970,363	2,644,044	3,614,406	3,493,305
354.4	Piping	2008	12.50	25,488	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	19,685	318,600	1,080,691	1,399,291	1,401,840
354.4	Paving	2008	12.50	16,992	R4.0	55.0	23	R4.0023	0.77099	42.40	54.90	77.231330%	13,123	212,400	720,461	932,861	934,560

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021-((20)+0.5)	Col (16)	AUS Input	AUS Input	Col (21) / (24)	Col (23) & (25)	(26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
394	Isco Samplers	2009	11.50	14,487	R3.0	20.0	58	R3.0058	0.47316	9.46	20.96	45.133588%	6,539	166,601	137,047	303,648	289,740
354.4	Piping	2010	10.50	205,332	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	166,189	2,155,986	9,153,701	11,309,687	11,293,260
354.4	Paving	2010	10.50	168,218	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	136,150	1,766,289	7,499,158	9,265,447	9,251,990
354.4	Electrical Wiring	2010	10.50	212,208	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	171,754	2,228,184	9,460,233	11,688,417	11,671,440
354.4	Electrical Equipment	2010	10.50	39,089	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	31,637	410,435	1,742,588	2,153,022	2,149,895
354.4	Fencing	2010	10.50	71,131	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	57,571	746,876	3,171,020	3,917,895	3,912,205
354.4	Structure	2011	9.50	238,259	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	197,248	2,263,556	10,884,128	13,147,683	13,104,795
354.4	Piping	2011	9.50	448,594	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	371,362	4,261,649	20,491,774	24,753,417	24,672,670
354.4	Paving	2011	9.50	123,005	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	101,828	1,168,548	5,618,868	6,787,418	6,765,275
354.4	Electrical Wiring	2011	9.50	843,588	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	698,353	8,014,086	38,535,100	46,549,186	46,397,340
354.4	Electrical Equipment	2011	9.50	2,136,094	R4.0	55.0	17	R4.0017	0.83047	45.68	55.18	82.783617%	1,768,336	20,292,893	97,576,774	117,869,667	117,485,170
380	Process Piping	2012	8.50	62,308	R2.0	45.0	19	R2.0019	0.83252	37.46	45.96	81.505657%	50,785	529,618	2,334,058	2,863,676	2,803,860
354.4	Paving	2012	8.50	13,705	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	11,597	116,493	640,983	757,475	753,775
354.4	Electrical Wiring	2012	8.50	2,037	R4.0	55.0	15	R4.0015	0.85036	46.77	55.27	84.620952%	1,724	17,315	95,270	112,585	112,035
354.4	HD Network Communication Gate	2015	5.50	8,113	R4.0	55.0	10	R4.0010	0.90017	49.51	55.01	90.001818%	7,302	44,622	401,675	446,296	446,215
380	Trash Pump	2015	5.50	13,599	R2.0	45.0	12	R2.0012	0.89304	40.19	45.69	87.962355%	11,962	74,795	546,544	621,338	611,955
354.4	Utility Water Heater	2015	5.50	20,346	R4.0	55.0	10	R4.0010	0.90017	49.51	55.01	90.001818%	18,312	111,903	1,007,330	1,119,233	1,119,030
				44,743,692									**21,543,523**	**1,236,190,427**	**1,202,189,106**	**2,406,379,520**	**2,417,734,675**
354.4	Structure	1991	29.50	768,657	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	361,412	22,675,382	20,123,440	42,798,822	42,276,135
354.4	Electrical Wiring	1991	29.50	71,890	R4.0	55.0	54	R4.0054	0.47598	26.18	55.68	47.018678%	33,802	2,120,755	1,882,080	4,002,835	3,953,950
380	Process Equip	2005	15.50	162,864	R2.0	45.0	34	R2.0034	0.70812	31.87	47.37	67.278868%	109,573	2,524,392	5,190,476	7,714,868	7,328,880
354.4	Electric Equip	2005	15.50	13,268	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	9,542	205,654	526,607	732,261	729,740
354.4	Electric Wiring	2005	15.50	8,610	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	6,192	133,455	341,731	475,186	473,550
354.4	Piping	2005	15.50	2,147	R4.0	55.0	28	R4.0028	0.72172	39.69	55.19	71.915202%	1,544	33,279	85,214	118,493	118,085
354.4	Electrical Wiring	2010	10.50	5,930	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	4,800	62,265	264,359	326,624	326,150
354.4	Electrical Equipment	2010	10.50	400	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	324	4,200	17,832	22,032	22,000
354.4	HVAC Equipment	2010	10.50	80,197	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	64,909	842,069	3,575,182	4,417,251	4,410,835
354.4	HVAC Piping/Ductwork	2010	10.50	80,363	R4.0	55.0	19	R4.0019	0.81061	44.58	55.08	80.936819%	65,043	843,812	3,582,583	4,426,394	4,419,965
				1,194,326									**657,141**	**29,445,263**	**35,589,504**	**65,034,766**	**64,059,290**
354.4	Structure	1981	39.50	123,870	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	38,717	4,892,865	2,224,705	7,117,570	6,812,850
354.4	Process Equipment	1981	39.50	48,718	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	15,228	1,924,361	874,975	2,799,336	2,679,490
354.4	Piping	1981	39.50	23,025	R4.0	55.0	72	R4.0072	0.32657	17.96	57.46	31.256526%	7,197	909,488	413,529	1,323,017	1,266,375
				195,613									**61,142**	**7,726,714**	**3,513,209**	**11,239,923**	**10,758,715**
391	Pickup 602	2005	15.50	22,016	R3.0	15.0	103	R3.0103	0.18808	2.82	18.32	15.393013%	3,389	341,248	62,085	403,333	330,240
391	Dump Truck 624	1986	34.50	45,220	R3.0	15.0	230	R3.0230	0.15000	2.25	36.75	15.000000%	6,783	1,560,090	101,745	1,661,835	678,300
391	Stake Body Truck 639	2011	9.50	52,411	R3.0	15.0	63	R3.0063	0.43441	6.52	16.02	40.699126%	21,331	497,905	341,720	839,624	786,165
391	Vactor Truck 640	1990	30.50	207,689	R3.0	15.0	203	R3.0203	0.15000	2.25	32.75	15.000000%	31,153	6,334,515	467,300	6,801,815	3,115,335
391	Knuckle Boom Truck 645	1991	29.50	149,671	R3.0	15.0	197	R3.0197	0.15000	2.25	31.75	15.000000%	22,451	4,415,295	336,760	4,752,054	2,245,065
391	Ford 3500 647	2000	20.50	39,998	R3.0	15.0	137	R3.0137	0.15000	2.25	22.75	15.000000%	6,000	819,959	89,996	909,955	599,970
391	Trailer 206	1987	33.50	3,203	R3.0	15.0	223	R3.0223	0.15000	2.25	35.75	15.000000%	480	107,301	7,207	114,507	48,045
391	Ford E-350 212	2002	18.50	36,782	R3.0	15.0	123	R3.0123	0.15000	2.25	20.75	15.000000%	5,517	680,467	82,760	763,227	551,730
				556,990									**97,104**	**14,756,780**	**1,489,573**	**16,246,350**	**9,354,850**
				302,559,564									**148,897,626**	**9,075,081,932**	**7,939,015,819**	**17,014,097,590**	**15,907,621,433**
363	Sanitary Sewer Service Connection - Fireside Sewer Replacement	2019	1.50	84,381	R3.0	50.0	3	R3.0003	0.97050	48.53	50.03	97.001799%	81,851	126,572	4,095,010	4,221,581	4,219,050
363	Sanitary Sewer Service Connection - 2015 Sewer Improvement	2015	5.50	142,575	R3.0	50.0	11	R3.0011	0.89247	44.62	50.12	89.026337%	126,929	784,163	6,361,697	7,145,859	7,128,750
363	Sanitary Sewer Service Connection - Arch Street Interceptor	2011	9.50	32,234	R3.0	50.0	19	R3.0019	0.81568	40.78	50.28	81.105807%	26,144	306,223	1,314,503	1,620,726	1,611,700

S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Pennsylvania American Water Company																	
The York City Sewer Authority Wastewater System																	
Wastewater Collection & Treatment System																	
Investor-Owned Utility																	
As of April 6, 2021																	
Replacement Cost New less Depreciation (RCNLD)																	
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Look-up Iowa Curves Life Tables @ cell [26]	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 ([20]+0.5)	Col [18]	AUS Input	AUS Input	Col [21] / [24]	Col [23] & [25]		Col [24] * [27]	Col [24] + [28]	Col [26] / [29]	Col [22] * [30]	Col [22] * [21]	Col [22] * [28]	Col [22] * [29]	Col [22] * [24]
Account	Description	Year1	Age	RCN	Iowa	NL	AgeF	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
363	Sanitary Sewer Service Connection - Northwest Triangle	2009	11.50	83,315	R3.0	50.0	23	R3.0023	0.77789	38.89	50.39	77.178012%	64,301	958,123	3,240,120	4,199,243	4,165,750
363	Sanitary Sewer Service Connection	2008	12.50	18,278	R3.0	50.0	25	R3.0025	0.75917	37.96	50.46	75.227903%	13,750	228,475	693,833	922,308	913,900
363	Sanitary Sewer Service Connection	2004	16.50	17,776	R3.0	50.0	33	R3.0033	0.68583	34.28	50.78	67.506892%	12,000	293,304	609,361	902,665	888,800
363	Sanitary Sewer Service Connection	2003	17.50	323,824	R3.0	50.0	35	R3.0035	0.66761	33.38	50.88	65.605346%	212,446	5,666,920	10,809,245	16,476,165	16,181,200
363	Sanitary Sewer Service Connection	2002	18.50	55,814	R3.0	50.0	37	R3.0037	0.64975	32.49	50.99	63.718376%	35,564	1,032,559	1,813,397	2,845,956	2,790,700
363	Sanitary Sewer Service Connection - Willis Run	2001	19.50	60,709	R3.0	50.0	39	R3.0039	0.63205	31.60	51.10	61.839530%	37,542	1,183,826	1,918,404	3,102,230	3,035,450
363	Sanitary Sewer Service Connection	1999	21.50	67,455	R3.0	50.0	43	R3.0043	0.59716	29.86	51.36	58.138629%	39,217	1,450,283	2,014,206	3,464,489	3,372,750
363	Sanitary Sewer Service Connection	1998	22.50	43,508	R3.0	50.0	45	R3.0045	0.58001	29.00	51.50	56.310680%	24,500	978,930	1,261,732	2,240,662	2,175,400
363	Sanitary Sewer Service Connection	1996	24.50	19,811	R3.0	50.0	49	R3.0049	0.54624	27.31	51.81	52.711832%	10,443	485,370	541,038	1,026,408	990,550
363	Sanitary Sewer Service Connection	1993	27.50	72,096	R3.0	50.0	55	R3.0055	0.49706	24.85	52.35	47.468959%	34,223	1,982,640	1,791,586	3,774,226	3,604,800
363	Sanitary Sewer Service Connection	1992	28.50	102,513	R3.0	50.0	57	R3.0057	0.48107	24.05	52.55	45.765937%	46,916	2,921,521	2,465,436	5,387,056	5,125,650
363	Sanitary Sewer Service Connection	1989	31.50	5,784	R3.0	50.0	63	R3.0063	0.43441	21.72	53.22	40.811725%	2,361	182,196	125,628	307,824	289,200
363	Sanitary Sewer Service Connection	1988	32.50	14,906	R3.0	50.0	65	R3.0065	0.41931	20.97	53.47	39.218253%	5,847	484,510	312,621	797,131	745,400
363	Sanitary Sewer Service Connection	1987	33.50	12,388	R3.0	50.0	67	R3.0067	0.40445	20.22	53.72	37.636613%	4,663	414,998	250,485	665,483	619,400
363	Sanitary Sewer Service Connection - Tyler Run	1983	37.50	44,454	R3.0	50.0	75	R3.0075	0.34751	17.38	54.88	31.669096%	14,078	1,667,025	772,611	2,439,636	2,222,700
363	Sanitary Sewer Service Connection - Codorus Creek	1983	37.50	425,532	R3.0	50.0	75	R3.0075	0.34751	17.38	54.88	31.669096%	134,762	15,957,450	7,395,746	23,353,196	21,276,800
363	Sanitary Sewer Service Connection	1980	40.50	705,738	R3.0	50.0	81	R3.0081	0.30773	15.39	55.89	27.536232%	194,334	28,582,388	10,861,308	39,443,697	35,286,900
363	Sanitary Sewer Service Connection	1979	41.50	12,136	R3.0	50.0	83	R3.0083	0.29598	14.75	56.25	26.222222%	3,182	503,644	179,006	682,650	606,800
363	Sanitary Sewer Service Connection	1971	49.50	57,432	R3.0	50.0	99	R3.0099	0.20649	10.32	59.82	17.251755%	9,908	2,842,884	592,696	3,435,582	2,871,600
363	Sanitary Sewer Service Connection	1965	55.50	32,475	R3.0	50.0	111	R3.0111	0.15571	7.79	63.29	15.000000%	4,871	1,802,418	252,986	2,055,406	1,623,800
363	Sanitary Sewer Service Connection	1963	57.50	52,214	R3.0	50.0	115	R3.0115	0.15000	7.50	65.00	15.000000%	7,832	3,002,305	391,605	3,393,910	2,610,700
363	Sanitary Sewer Service Connection	1962	58.50	96,738	R3.0	50.0	117	R3.0117	0.15000	7.50	66.00	15.000000%	14,511	5,659,232	725,543	6,384,774	4,836,950
363	Sanitary Sewer Service Connection	1961	59.50	73,936	R3.0	50.0	119	R3.0119	0.15000	7.50	67.00	15.000000%	11,090	4,399,192	554,520	4,953,712	3,696,800
363	Sanitary Sewer Service Connection	1958	62.50	108,753	R3.0	50.0	125	R3.0125	0.15000	7.50	70.00	15.000000%	15,313	6,797,063	815,648	7,612,710	5,437,650
363	Sanitary Sewer Service Connection	1957	63.50	134,185	R3.0	50.0	127	R3.0127	0.15000	7.50	71.00	15.000000%	20,125	8,519,478	1,006,238	9,525,715	6,706,250
363	Sanitary Sewer Service Connection	1956	64.50	152,016	R3.0	50.0	129	R3.0129	0.15000	7.50	72.00	15.000000%	22,802	9,805,032	1,140,120	10,945,152	7,600,800
363	Sanitary Sewer Service Connection	1955	65.50	272,656	R3.0	50.0	131	R3.0131	0.15000	7.50	73.00	15.000000%	40,898	17,858,968	2,044,920	19,903,888	13,632,800
363	Sanitary Sewer Service Connection	1954	66.50	754,135	R3.0	50.0	133	R3.0133	0.15000	7.50	74.00	15.000000%	113,120	50,149,978	5,656,013	55,805,990	37,706,750
363	Sanitary Sewer Service Connection	1953	67.50	3,585,776	R3.0	50.0	135	R3.0135	0.15000	7.50	75.00	15.000000%	537,866	242,039,880	26,893,320	268,933,200	179,288,800
363	Sanitary Sewer Service Connection	1952	68.50	26,704	R3.0	50.0	137	R3.0137	0.15000	7.50	76.00	15.000000%	4,006	1,829,224	200,260	2,029,504	1,335,200
363	Sanitary Sewer Service Connection	1951	69.50	51,456	R3.0	50.0	139	R3.0139	0.15000	7.50	77.00	15.000000%	7,718	3,576,192	385,920	3,962,112	2,572,800
363	Sanitary Sewer Service Connection	1950	70.50	94,222	R3.0	50.0	141	R3.0141	0.15000	7.50	78.00	15.000000%	14,133	6,642,651	706,665	7,349,316	4,711,100
363	Sanitary Sewer Service Connection	1949	71.50	25,702	R3.0	50.0	143	R3.0143	0.15000	7.50	79.00	15.000000%	3,855	1,837,693	192,765	2,030,458	1,285,100
363	Sanitary Sewer Service Connection	1948	72.50	23,847	R3.0	50.0	145	R3.0145	0.15000	7.50	80.00	15.000000%	3,577	1,728,908	178,853	1,907,760	1,192,350
363	Sanitary Sewer Service Connection	1947	73.50	282,225	R3.0	50.0	147	R3.0147	0.15000	7.50	81.00	15.000000%	42,334	20,743,538	2,116,688	22,860,225	14,111,250
363	Sanitary Sewer Service Connection	1946	74.50	353,255	R3.0	50.0	149	R3.0149	0.15000	7.50	82.00	15.000000%	52,988	26,317,498	2,649,413	28,966,910	17,662,750
363	Sanitary Sewer Service Connection	1945	75.50	84,253	R3.0	50.0	151	R3.0151	0.15000	7.50	83.00	15.000000%	12,740	6,412,442	636,998	7,049,439	4,246,650
363	Sanitary Sewer Service Connection	1944	76.50	105,197	R3.0	50.0	153	R3.0153	0.15000	7.50	84.00	15.000000%	15,780	8,047,571	788,978	8,836,548	5,259,850
363	Sanitary Sewer Service Connection	1943	77.50	23,843,875	R3.0	50.0	155	R3.0155	0.15000	7.50	85.00	15.000000%	3,576,581	1,847,900,313	178,829,063	2,026,729,375	1,192,193,750
363	Sanitary Sewer Service Connection	1942	78.50	326,254	R3.0	50.0	157	R3.0157	0.15000	7.50	86.00	15.000000%	48,938	25,610,939	2,445,905	28,057,844	16,312,700
363	Sanitary Sewer Service Connection	1941	79.50	27,804	R3.0	50.0	159	R3.0159	0.15000	7.50	87.00	15.000000%	4,171	2,210,418	208,530	2,418,948	1,390,200
363	Sanitary Sewer Service Connection	1940	80.50	190,713	R3.0	50.0	161	R3.0161	0.15000	7.50	88.00	15.000000%	20,857	11,246,897	1,047,848	12,294,744	6,985,650
363	Sanitary Sewer Service Connection	1939	81.50	356,973	R3.0	50.0	163	R3.0163	0.15000	7.50	89.00	15.000000%	53,546	29,093,300	2,677,298	31,770,597	17,848,850
363	Sanitary Sewer Service Connection	1938	82.50	517,747	R3.0	50.0	165	R3.0165	0.15000	7.50	90.00	15.000000%	77,662	42,714,128	3,883,103	46,597,230	25,887,350
363	Sanitary Sewer Service Connection	1937	83.50	488,418	R3.0	50.0	167	R3.0167	0.15000	7.50	91.00	15.000000%	73,263	40,782,903	3,663,135	44,446,038	24,420,900
363	Sanitary Sewer Service Connection	1936	84.50	1,016,936	R3.0	50.0	169	R3.0169	0.15000	7.50	92.00	15.000000%	152,540	85,931,092	7,627,020	93,558,112	50,846,800
363	Sanitary Sewer Service Connection	1935	85.50	319,274	R3.0	50.0	171	R3.0171	0.15000	7.50	93.00	15.000000%	47,891	27,297,927	2,394,555	29,692,482	15,963,700
363	Sanitary Sewer Service Connection	1934	86.50	85,352	R3.0	50.0	173	R3.0173	0.15000	7.50	94.00	15.000000%	12,803	7,382,948	640,140	8,023,088	4,267,600
363	Sanitary Sewer Service Connection	1933	87.50	22,484	R3.0	50.0	175	R3.0175	0.15000	7.50	95.00	15.000000%	3,373	1,967,350	168,630	2,135,980	1,124,200
363	Sanitary Sewer Service Connection	1932	88.50	324,074	R3.0	50.0	177	R3.0177	0.15000	7.50	96.00	15.000000%	48,611	28,680,549	2,430,555	31,111,104	16,203,700
363	Sanitary Sewer Service Connection	1931	89.50	727,293	R3.0	50.0	179	R3.0179	0.15000	7.50	97.00	15.000000%	109,094	65,092,724	5,454,698	70,547,421	36,364,650

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
input	input	input	Calculation	Calculation	input	input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ col (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 -[20]+0.5	Col (16)	AUS input	AUS input	Col (21) / (24)	Col (23) & (25)		Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
363	Sanitary Sewer Service Connection	1930	90.50	1,214,165	R3.0	50.0	181	R3.0181	0.15000	7.50	98.00	15.000000%	182,125	109,881,933	9,106,238	118,988,170	60,708,250
363	Sanitary Sewer Service Connection	1928	92.50	213,641	R3.0	50.0	185	R3.0185	0.15000	7.50	100.00	15.000000%	32,046	19,761,793	1,602,308	21,364,100	10,682,050
363	Sanitary Sewer Service Connection	1927	93.50	558,418	R3.0	50.0	187	R3.0187	0.15000	7.50	101.00	15.000000%	83,763	52,212,083	4,188,135	56,400,218	27,920,900
363	Sanitary Sewer Service Connection	1926	94.50	1,882,915	R3.0	50.0	189	R3.0189	0.15000	7.50	102.00	15.000000%	282,437	177,935,468	14,121,863	192,057,330	94,145,750
363	Sanitary Sewer Service Connection	1925	95.50	2,774,757	R3.0	50.0	191	R3.0191	0.15000	7.50	103.00	15.000000%	416,214	264,989,294	20,810,678	285,799,971	138,737,850
363	Sanitary Sewer Service Connection	1924	96.50	72,183	R3.0	50.0	193	R3.0193	0.15000	7.50	104.00	15.000000%	10,827	6,965,660	541,373	7,507,032	3,609,150
363	Sanitary Sewer Service Connection	1922	98.50	14,064	R3.0	50.0	197	R3.0197	0.15000	7.50	106.00	15.000000%	2,110	1,385,304	105,480	1,490,784	703,200
363	Sanitary Sewer Service Connection	1921	99.50	5,023	R3.0	50.0	199	R3.0199	0.15000	7.50	107.00	15.000000%	753	499,789	37,673	537,461	251,150
363	Sanitary Sewer Service Connection	1919	101.50	37,826	R3.0	50.0	203	R3.0203	0.15000	7.50	109.00	15.000000%	5,674	3,839,339	283,695	4,123,034	1,891,300
363	Sanitary Sewer Service Connection	1917	103.50	201,562	R3.0	50.0	207	R3.0207	0.15000	7.50	111.00	15.000000%	30,234	20,861,667	1,511,715	22,373,382	10,078,100
363	Sanitary Sewer Service Connection	1916	104.50	59,542	R3.0	50.0	209	R3.0209	0.15000	7.50	112.00	15.000000%	8,931	6,222,139	446,565	6,668,704	2,977,100
363	Sanitary Sewer Service Connection	1904	116.50	154,190	R3.0	50.0	233	R3.0233	0.15000	7.50	124.00	15.000000%	23,129	17,963,135	1,156,425	19,119,560	7,709,500
				44,097,551									**7,389,193**	**3,394,832,480**	**372,140,776**	**3,756,773,213**	**2,204,877,550**
361.7	Manholes - Manchester Interceptor	2019	1.50	74,061	S2.0	75.0	2	S2.0002	0.98000	73.50	75.00	98.000000%	72,580	111,092	5,443,484	5,554,575	5,554,575
361.7	Manholes - Fireside Sewer Replacement	2018	2.50	63,948	S2.0	75.0	3	S2.0003	0.97000	72.75	75.25	96.677741%	61,823	159,870	4,652,217	4,812,087	4,796,100
361.7	Manholes - 2015 Sewer Improvements	2015	5.50	31,971	S2.0	75.0	7	S2.0007	0.93001	69.75	75.25	92.691030%	29,634	175,841	2,229,977	2,405,818	2,397,825
361.7	Manholes - Poorhouse Run Interceptor	2011	9.50	587,141	S2.0	75.0	13	S2.0013	0.87016	65.26	74.76	87.292670%	512,531	5,577,840	38,316,822	43,894,661	44,035,575
361.7	Manholes - Arch Street Interceptor	2011	9.50	45,159	S2.0	75.0	13	S2.0013	0.87016	65.26	74.76	87.292670%	39,420	429,011	2,947,076	3,376,087	3,386,925
361.7	Manholes - Willis Run Siphon Chambers	2011	9.50	770,105	S2.0	75.0	13	S2.0013	0.87016	65.26	74.76	87.292670%	672,245	7,315,998	50,257,052	57,573,050	57,757,875
361.7	Manholes - Northwest Triangle	2009	11.50	71,625	S2.0	75.0	15	S2.0015	0.85031	63.77	75.27	84.721689%	60,682	823,688	4,567,526	5,391,214	5,371,875
361.7	Manholes	2008	12.50	74,470	S2.0	75.0	17	S2.0017	0.83052	62.29	74.79	83.286536%	62,023	930,875	4,638,736	5,569,611	5,585,250
361.7	Manholes	2004	16.50	58,456	S2.0	75.0	22	S2.0022	0.78155	58.62	75.12	78.035144%	45,616	964,524	3,426,691	4,391,215	4,384,200
361.7	Manholes	2003	17.50	437,438	S2.0	75.0	23	S2.0023	0.77166	57.89	75.39	76.787372%	335,897	7,655,165	25,323,286	32,978,451	32,807,850
361.7	Manholes	2002	18.50	253,882	S2.0	75.0	25	S2.0025	0.75261	56.45	74.95	75.316878%	191,216	4,696,817	14,331,639	19,028,456	19,041,150
361.7	Manholes - Roosevelt Ave Willis Run	2001	19.50	73,357	S2.0	75.0	26	S2.0026	0.74306	55.73	75.23	74.079490%	54,342	1,430,462	4,088,186	5,518,647	5,501,775
361.7	Manholes	1999	21.50	149,584	S2.0	75.0	29	S2.0029	0.71472	53.60	75.10	71.371505%	106,760	3,216,056	8,017,702	11,233,758	11,218,800
361.7	Manholes	1998	22.50	242,358	S2.0	75.0	30	S2.0030	0.70539	52.90	75.40	70.159151%	170,036	5,453,055	12,820,738	18,273,793	18,176,850
361.7	Manholes	1996	24.50	186,250	S2.0	75.0	33	S2.0033	0.67778	50.83	75.33	67.476437%	125,675	4,563,125	9,467,088	14,030,213	13,968,750
361.7	Manholes - Upper Codorus	1993	27.50	18,994	S2.0	75.0	37	S2.0037	0.64197	48.15	75.65	63.648381%	12,089	522,335	914,561	1,436,896	1,424,550
361.7	Manholes	1993	27.50	151,950	S2.0	75.0	37	S2.0037	0.64197	48.15	75.65	63.648381%	96,714	4,178,625	7,316,393	11,495,018	11,396,250
361.7	Manholes - Upper Codorus	1992	28.50	390,275	S2.0	75.0	38	S2.0038	0.63320	47.49	75.99	62.495065%	243,903	11,122,838	18,534,160	29,656,997	29,270,625
361.7	Manholes - Upper Codorus	1992	28.50	92,923	S2.0	75.0	38	S2.0038	0.63320	47.49	75.99	62.495065%	58,072	2,648,306	4,412,913	7,061,219	6,969,225
361.7	Manholes	1989	31.50	37,325	S2.0	75.0	42	S2.0042	0.58897	44.92	76.42	58.780424%	21,940	1,175,738	1,676,639	2,852,377	2,799,375
361.7	Manholes	1988	32.50	89,191	S2.0	75.0	43	S2.0043	0.58062	44.30	76.80	57.682292%	51,447	2,898,708	3,951,161	6,849,869	6,689,325
361.7	Manholes	1987	33.50	35,465	S2.0	75.0	45	S2.0045	0.57419	43.06	76.56	56.243469%	19,947	1,188,078	1,527,123	2,715,200	2,659,875
361.7	Manholes - Tyler Run	1983	37.50	564,999	S2.0	75.0	50	S2.0050	0.53467	40.10	77.60	51.675258%	291,965	21,187,463	22,656,460	43,843,922	42,374,925
361.7	Manholes - Codorus Creek	1983	37.50	1,038,868	S2.0	75.0	50	S2.0050	0.53467	40.10	77.60	51.675258%	536,838	38,957,550	41,658,607	80,616,157	77,915,100
361.7	Manholes	1980	40.50	2,277,644	S2.0	75.0	54	S2.0054	0.50470	37.85	78.35	48.308870%	1,100,304	92,244,582	86,208,825	178,453,407	170,823,300
361.7	Manholes	1979	41.50	74,454	S2.0	75.0	55	S2.0055	0.49743	37.31	78.81	47.341708%	35,248	3,089,841	2,777,879	5,867,720	5,584,050
361.7	Manholes	1971	49.50	35,986	S2.0	75.0	66	S2.0066	0.42346	31.76	81.26	39.084420%	14,065	1,781,307	1,142,915	2,924,222	2,698,950
361.7	Manholes	1965	55.50	63,425	S2.0	75.0	74	S2.0074	0.37614	28.21	83.71	33.699677%	21,374	3,520,088	1,789,219	5,309,307	4,756,875
361.7	Manholes	1963	57.50	149,994	S2.0	75.0	77	S2.0077	0.35969	26.98	84.48	31.936553%	47,903	8,624,655	4,046,838	12,671,493	11,249,550
361.7	Manholes	1962	58.50	159,413	S2.0	75.0	78	S2.0078	0.35436	26.58	85.08	31.241185%	49,803	9,325,661	4,237,198	13,562,858	11,955,975
361.7	Manholes	1961	59.50	269,630	S2.0	75.0	79	S2.0079	0.34910	26.18	85.68	30.555556%	82,387	16,042,985	7,058,913	23,101,898	20,222,250
361.7	Manholes	1958	62.50	200,557	S2.0	75.0	83	S2.0083	0.32876	24.66	87.16	28.292795%	56,743	12,534,813	4,945,736	17,480,548	15,041,775
361.7	Manholes	1957	63.50	133,966	S2.0	75.0	85	S2.0085	0.31899	23.92	87.42	27.362160%	36,656	8,506,841	3,204,467	11,711,308	10,047,450
361.7	Manholes	1956	64.50	270,683	S2.0	75.0	86	S2.0086	0.31421	23.57	88.07	26.762802%	72,442	17,459,054	6,379,996	23,839,052	20,301,225
361.7	Manholes	1955	65.50	465,455	S2.0	75.0	87	S2.0087	0.30949	23.21	88.71	26.163905%	121,781	30,487,303	10,803,211	41,290,513	34,909,125
361.7	Manholes	1954	66.50	1,215,608	S2.0	75.0	89	S2.0089	0.30023	22.52	89.02	25.297686%	307,521	80,837,932	27,375,492	108,213,424	91,170,600
361.7	Manholes	1953	67.50	2,588,093	S2.0	75.0	90	S2.0090	0.29570	22.18	89.68	24.732382%	640,097	174,696,278	57,403,903	232,100,180	194,106,975

S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Pennsylvania American Water Company																	
The York City Sewer Authority Wastewater System																	
Wastewater Collection & Treatment System																	
Investor-Owned Utility																	
As of April 6, 2021																	
Replacement Cost New less Depreciation (RCNLD)																	
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Iowa Curves Life Tables @ 1.0x (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	2021-[(20)+0.5]	Col (18)	AUS Input	AUS Input	Col (21) ÷ (24)	Col (23) & (25)	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
361.7	Manholes	1952	68.50	54,201	S2.0	75.0	91	S2.0091	0.29122	21.84	90.34	24.175338%	13,103	3,712,769	1,183,750	4,896,518	4,065,075
361.7	Manholes	1951	69.50	108,212	S2.0	75.0	93	S2.0093	0.26244	21.18	90.68	23.356856%	25,275	7,520,734	2,291,930	9,812,664	8,115,900
361.7	Manholes	1950	70.50	210,400	S2.0	75.0	94	S2.0094	0.27814	20.86	91.36	22.832750%	48,040	14,833,200	4,568,944	19,222,144	15,780,000
361.7	Manholes	1949	71.50	36,040	S2.0	75.0	95	S2.0095	0.27388	20.54	92.04	22.316384%	8,469	2,719,860	781,342	3,501,202	2,853,000
361.7	Manholes	1948	72.50	50,859	S2.0	75.0	97	S2.0097	0.26556	19.92	92.42	21.553776%	10,962	3,687,278	1,013,111	4,700,389	3,814,425
361.7	Manholes	1947	73.50	264,771	S2.0	75.0	98	S2.0098	0.26147	19.61	93.11	21.061111%	55,764	19,460,689	5,192,159	24,652,828	19,857,625
361.7	Manholes	1946	74.50	316,138	S2.0	75.0	99	S2.0099	0.25743	19.31	93.81	20.584156%	65,074	23,552,281	6,104,625	29,656,906	23,710,350
361.7	Manholes	1945	75.50	57,821	S2.0	75.0	101	S2.0101	0.24950	18.71	94.21	19.859887%	11,483	4,365,486	1,081,831	5,447,316	4,336,575
361.7	Manholes	1944	76.50	66,358	S2.0	75.0	102	S2.0102	0.24561	18.42	94.92	19.405815%	13,265	5,229,387	1,259,154	6,488,541	5,126,850
361.7	Manholes	1943	77.50	11,779,380	S2.0	75.0	103	S2.0103	0.24177	18.13	95.63	18.958486%	2,233,192	912,901,950	213,560,159	1,126,462,109	883,453,500
361.7	Manholes	1942	78.50	361,781	S2.0	75.0	105	S2.0105	0.23423	17.57	96.07	18.288748%	66,165	28,399,809	6,356,492	34,756,301	27,133,575
361.7	Manholes	1941	79.50	31,978	S2.0	75.0	106	S2.0106	0.23052	17.29	96.79	17.863416%	5,713	2,542,331	552,917	3,095,247	2,398,425
361.7	Manholes	1940	80.50	184,420	S2.0	75.0	107	S2.0107	0.22686	17.01	97.51	17.444365%	32,171	14,845,810	3,138,984	17,982,794	13,831,500
361.7	Manholes	1939	81.50	325,690	S2.0	75.0	109	S2.0109	0.21967	16.48	97.98	16.819759%	54,780	26,543,735	5,367,371	31,911,106	24,426,750
361.7	Manholes	1938	82.50	424,364	S2.0	75.0	110	S2.0110	0.21614	16.21	98.71	16.421842%	69,692	35,011,680	5,879,265	41,890,945	31,628,800
361.7	Manholes	1937	83.50	422,566	S2.0	75.0	111	S2.0111	0.21264	15.95	99.45	16.038210%	67,775	35,285,931	5,740,247	42,026,178	31,693,950
361.7	Manholes	1936	84.50	612,037	S2.0	75.0	113	S2.0113	0.20578	15.43	99.93	15.440809%	94,503	51,717,127	9,443,791	61,160,857	45,902,775
361.7	Manholes	1935	85.50	165,137	S2.0	75.0	114	S2.0114	0.20240	15.18	100.68	15.077473%	24,898	14,119,214	2,506,780	16,625,993	12,365,275
361.7	Manholes	1934	86.50	63,372	S2.0	75.0	115	S2.0115	0.19907	14.93	101.43	15.000000%	9,506	5,481,678	946,144	6,427,822	4,752,900
361.7	Manholes	1933	87.50	24,749	S2.0	75.0	117	S2.0117	0.19250	14.44	101.94	15.000000%	3,712	2,165,538	357,376	2,522,913	1,856,175
361.7	Manholes	1932	88.50	85,762	S2.0	75.0	118	S2.0118	0.18927	14.20	102.70	15.000000%	12,864	7,589,937	1,217,820	8,807,757	6,432,150
361.7	Manholes	1931	89.50	461,546	S2.0	75.0	119	S2.0119	0.18608	13.96	103.46	15.000000%	69,232	41,309,367	6,443,182	47,751,549	34,615,950
361.7	Manholes	1930	90.50	689,054	S2.0	75.0	121	S2.0121	0.17980	13.49	103.99	15.000000%	104,650	63,265,282	9,430,373	72,695,655	52,429,800
361.7	Manholes	1928	92.50	134,785	S2.0	75.0	123	S2.0123	0.17364	13.02	105.52	15.000000%	20,218	12,467,613	1,754,901	14,222,513	10,108,875
361.7	Manholes	1927	93.50	195,084	S2.0	75.0	125	S2.0125	0.16762	12.57	106.07	15.000000%	29,263	18,240,354	2,452,206	20,692,560	14,631,300
361.7	Manholes	1926	94.50	911,936	S2.0	75.0	126	S2.0126	0.16465	12.35	106.85	15.000000%	136,790	86,177,952	11,262,410	97,440,362	68,395,200
361.7	Manholes	1925	95.50	891,049	S2.0	75.0	127	S2.0127	0.16171	12.13	107.63	15.000000%	133,657	85,095,180	10,806,424	95,901,604	66,828,675
361.7	Manholes	1924	96.50	18,666	S2.0	75.0	128	S2.0128	0.15892	11.69	108.19	15.000000%	2,800	1,801,269	218,206	2,019,475	1,399,950
361.7	Manholes	1921	99.50	25,869	S2.0	75.0	133	S2.0133	0.15000	11.25	110.75	15.000000%	3,880	2,573,986	291,025	2,864,992	1,940,175
361.7	Manholes	1917	103.50	78,312	S2.0	75.0	138	S2.0138	0.15000	11.25	114.75	15.000000%	11,747	8,105,292	861,010	8,966,302	5,873,400
361.7	Manholes	1916	104.50	13,048	S2.0	75.0	139	S2.0139	0.15000	11.25	115.75	15.000000%	1,957	1,363,516	146,790	1,510,306	978,500
361.7	Manholes	1912	108.50	10,730	S2.0	75.0	145	S2.0145	0.15000	11.25	119.75	15.000000%	1,610	1,164,205	120,713	1,284,918	804,750
				32,534,869									**9,802,159**	**2,129,783,810**	**834,722,894**	**2,964,505,997**	**2,440,115,175**
361	Sanitary Sewers - Fireside Sewer Replacement	2019	1.50	376,916	R2.5	80.0	2	R2.5002	0.98112	78.49	79.99	98.124766%	369,848	565,374	29,584,137	30,149,511	30,153,280
361	Sanitary Sewers - Fireside Sewer Replacement	2019	1.50	147,890	R2.5	80.0	2	R2.5002	0.98112	78.49	79.99	98.124766%	145,117	221,835	11,607,886	11,829,721	11,831,200
361	Sanitary Sewers - Manchester Interceptor	2019	1.50	3,368,727	R2.5	80.0	2	R2.5002	0.98112	78.49	79.99	98.124766%	3,305,555	5,053,081	264,411,382	269,464,473	269,498,160
361	Sanitary Sewer - 2015 Sewer Improvements	2015	5.50	318,969	R2.5	80.0	7	R2.5007	0.93424	74.74	80.24	93.145563%	297,106	1,754,330	23,839,743	25,594,073	25,517,520
361	Sanitary Sewers - Poorhouse Run Replacement	2011	9.50	344,387	R2.5	80.0	12	R2.5012	0.88789	71.03	80.53	88.203154%	303,760	3,271,677	24,461,809	27,733,485	27,550,960
361	Sanitary Sewers - Arch Street Interceptor	2011	9.50	468,807	R2.5	80.0	12	R2.5012	0.88789	71.03	80.53	88.203154%	413,591	4,454,617	33,306,464	37,761,081	37,512,580
361	Sanitary Sewers - Poorhouse Run Replacement	2011	9.50	1,485,783	R2.5	80.0	12	R2.5012	0.88789	71.03	80.53	88.203154%	1,310,507	14,114,939	105,535,166	119,650,105	118,862,640
361	Sanitary Sewers - Poorhouse Run Replacement	2011	9.50	122,995	R2.5	80.0	12	R2.5012	0.88789	71.03	80.53	88.203154%	108,485	1,168,453	8,736,335	9,904,787	9,839,600
361	Sanitary Sewers - Poorhouse Run Replacement	2011	9.50	216,472	R2.5	80.0	12	R2.5012	0.88789	71.03	80.53	88.203154%	190,935	2,056,484	15,376,006	17,432,490	17,317,760
361	Sanitary Sewer - North West Triangle	2009	11.50	343,930	R2.5	80.0	14	R2.5014	0.86951	69.56	81.06	85.812978%	295,137	3,955,195	23,923,771	27,878,966	27,514,400
361	Sanitary Sewer - North West Triangle	2009	11.50	553,895	R2.5	80.0	14	R2.5014	0.86951	69.56	81.06	85.812978%	475,314	6,369,793	38,528,936	44,898,729	44,311,600
361	Sanitary Sewer - North West Triangle	2009	11.50	182,814	R2.5	80.0	14	R2.5014	0.86951	69.56	81.06	85.812978%	156,964	2,103,511	12,723,498	14,827,009	14,633,120
361	Sanitary Sewers	2004	16.50	33,111	R2.5	80.0	21	R2.5021	0.80802	64.48	80.98	79.624599%	26,365	546,332	2,134,997	2,681,329	2,648,880
361	Sanitary Sewers	2003	17.50	11,092	R2.5	80.0	22	R2.5022	0.79706	63.76	81.26	78.464186%	8,703	194,110	707,226	901,336	887,360
361	Sanitary Sewers - Arch Street Interceptor	2003	17.50	105,527	R2.5	80.0	22	R2.5022	0.79706	63.76	81.26	78.464186%	82,801	1,846,723	6,728,402	8,575,124	8,442,180
361	Sanitary Sewers - Arch Street Interceptor	2003	17.50	396,331	R2.5	80.0	22	R2.5022	0.79706	63.76	81.26	78.464186%	310,978	6,935,789	25,270,065	32,205,857	31,706,480
361	Sanitary Sewers - Arch Street Interceptor	2003	17.50	564,926	R2.5	80.0	22	R2.5022	0.79706	63.76	81.26	78.464186%	443,265	9,886,205	36,019,682	45,905,887	45,194,080

Pennsylvania American Water Company
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As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
Input	Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ col (26)	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assumd	Eng Assumd	Eng Assmnt	2021 - (20)+0.5)	Col (16)	AUS input	AUS input	Col (21) / (24)	Col (23) & (25)	(26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
361	Sanitary Sewers - Arch Street Interceptor	2003	17.50	573,529	R2.5	80.0	22	R2.5022	0.79706	63.76	81.26	78.464189%	450,015	10,036,758	36,568,209	46,604,967	45,882,320
361	Sanitary Sewers	2002	18.50	34,706	R2.5	80.0	23	R2.5023	0.78813	63.05	81.55	77.314531%	26,833	642,061	2,188,213	2,830,274	2,776,480
361	Sanitary Sewers	2002	18.50	106,251	R2.5	80.0	23	R2.5023	0.78813	63.05	81.55	77.314531%	82,147	1,965,644	6,699,126	8,664,769	8,500,080
361	Sanitary Sewers	2002	18.50	194,069	R2.5	80.0	23	R2.5023	0.78813	63.05	81.55	77.314531%	150,044	3,590,277	12,236,050	15,826,327	15,525,520
361	Sanitary Sewers - Richland Ave Point Repair	2002	18.50	41,612	R2.5	80.0	23	R2.5023	0.78813	63.05	81.55	77.314531%	32,172	769,822	2,623,637	3,393,459	3,328,960
361	Sanitary Sewers - Roosevelt Ave Willis Run	2001	19.50	182,463	R2.5	80.0	24	R2.5024	0.77923	62.34	81.84	76.173021%	138,988	3,558,029	11,374,743	14,932,772	14,597,040
361	Sanitary Sewers - Roosevelt Ave Willis Run	2001	19.50	336,252	R2.5	80.0	24	R2.5024	0.77923	62.34	81.84	76.173021%	256,133	6,556,914	20,961,950	27,518,864	26,900,160
361	Sanitary Sewers - Roosevelt Ave Willis Run	2001	19.50	494,162	R2.5	80.0	24	R2.5024	0.77923	62.34	81.84	76.173021%	376,418	9,636,159	30,806,059	40,442,218	39,532,960
361	Sanitary Sewers	1999	21.50	50,819	R2.5	80.0	27	R2.5027	0.75273	60.22	81.72	73.690651%	37,449	1,092,609	3,060,320	4,152,929	4,065,520
361	Sanitary Sewers	1999	21.50	41,086	R2.5	80.0	27	R2.5027	0.75273	60.22	81.72	73.690651%	30,277	883,349	2,474,199	3,357,548	3,286,880
361	Sanitary Sewers	1998	22.50	2,116	R2.5	80.0	28	R2.5028	0.74396	59.52	82.02	72.567666%	1,536	47,610	125,944	173,554	169,280
361	Sanitary Sewers	1998	22.50	3,497	R2.5	80.0	28	R2.5028	0.74396	59.52	82.02	72.567666%	2,538	78,683	208,141	286,824	279,760
361	Sanitary Sewers	1998	22.50	241,724	R2.5	80.0	28	R2.5028	0.74396	59.52	82.02	72.567666%	175,413	5,438,790	14,387,412	19,826,202	19,337,920
361	Sanitary Sewers	1996	24.50	204,839	R2.5	80.0	31	R2.5031	0.71785	57.43	81.93	70.096424%	143,585	5,018,556	11,763,904	16,782,459	16,387,120
361	Sanitary Sewers	1993	27.50	47,577	R2.5	80.0	34	R2.5034	0.69207	55.37	82.87	66.815494%	31,789	1,308,368	2,634,338	3,942,706	3,806,160
361	Sanitary Sewers	1993	27.50	4,650	R2.5	80.0	34	R2.5034	0.69207	55.37	82.87	66.815494%	3,107	127,875	257,471	385,346	372,000
361	Sanitary Sewers - Upper Codorus	1993	27.50	330,174	R2.5	80.0	34	R2.5034	0.69207	55.37	82.87	66.815494%	220,607	9,079,785	18,281,734	27,361,519	26,413,920
361	Sanitary Sewers	1993	27.50	105,563	R2.5	80.0	34	R2.5034	0.69207	55.37	82.87	66.815494%	70,532	2,902,983	5,845,023	8,748,006	8,445,040
361	Sanitary Sewers	1993	27.50	104,031	R2.5	80.0	34	R2.5034	0.69207	55.37	82.87	66.815494%	69,509	2,860,853	5,760,196	8,621,049	8,322,480
361	Sanitary Sewers	1992	28.50	564	R2.5	80.0	36	R2.5036	0.67506	54.00	82.50	65.454545%	369	16,074	30,456	46,530	45,120
361	Sanitary Sewers - Upper Codorus	1992	28.50	1,932,539	R2.5	80.0	36	R2.5036	0.67506	54.00	82.50	65.454545%	1,264,835	55,077,362	104,357,106	159,434,468	154,603,120
361	Sanitary Sewers - Upper Codorus	1992	28.50	4,606,630	R2.5	80.0	36	R2.5036	0.67506	54.00	82.50	65.454545%	3,015,249	131,288,955	248,758,020	380,046,975	368,530,400
361	Sanitary Sewers	1989	31.50	24,985	R2.5	80.0	39	R2.5039	0.64984	51.89	83.49	62.270931%	15,558	787,028	1,298,970	2,085,998	1,998,800
361	Sanitary Sewers	1988	32.50	20,681	R2.5	80.0	41	R2.5041	0.63322	50.66	83.16	60.918711%	12,599	672,133	1,047,689	1,719,832	1,654,480
361	Sanitary Sewers	1988	32.50	26,697	R2.5	80.0	41	R2.5041	0.63322	50.66	83.16	60.918711%	16,263	867,653	1,352,470	2,220,123	2,135,760
361	Sanitary Sewers	1988	32.50	35,485	R2.5	80.0	41	R2.5041	0.63322	50.66	83.16	60.918711%	21,617	1,153,263	1,797,670	2,950,933	2,838,800
361	Sanitary Sewers	1988	32.50	270,093	R2.5	80.0	41	R2.5041	0.63322	50.66	83.16	60.918711%	164,537	8,778,023	13,682,911	22,460,934	21,607,440
361	Sanitary Sewers	1987	33.50	969	R2.5	80.0	42	R2.5042	0.62498	50.00	83.50	59.880240%	580	32,462	48,450	80,912	77,520
361	Sanitary Sewers	1983	37.50	171,097	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	94,941	6,416,136	7,998,785	14,414,922	13,687,760
361	Sanitary Sewers	1983	37.50	196,139	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	108,837	7,355,213	9,169,498	16,524,711	15,691,120
361	Sanitary Sewers	1983	37.50	21,748	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	12,068	815,550	1,016,719	1,832,269	1,739,840
361	Sanitary Sewers	1983	37.50	3,385	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	1,878	126,938	158,249	285,186	270,800
361	Sanitary Sewers - Tyler Run	1983	37.50	1,505,883	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	835,609	56,470,613	70,400,030	126,870,643	120,470,640
361	Sanitary Sewers - Tyler Run	1983	37.50	3,701,875	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	2,054,156	138,820,313	173,062,656	311,882,969	296,150,000
361	Sanitary Sewers	1983	37.50	14,876	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	8,255	557,850	695,453	1,253,303	1,190,080
361	Sanitary Sewers - Codorus Creek	1983	37.50	17,338,924	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	9,621,302	650,209,650	810,594,697	1,460,804,347	1,387,113,920
361	Sanitary Sewers - Codorus Creek	1983	37.50	5,726,459	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	3,177,590	214,742,213	267,711,958	482,454,171	458,116,720
361	Sanitary Sewers - Codorus Creek	1983	37.50	15,778,153	R2.5	80.0	47	R2.5047	0.58438	46.75	84.25	55.489614%	8,755,236	591,680,738	737,628,653	1,329,309,390	1,262,252,240
361	Sanitary Sewers	1980	40.50	105,553	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	55,094	4,274,897	4,667,554	8,942,450	8,444,240
361	Sanitary Sewers	1980	40.50	584,014	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	304,829	23,652,567	25,825,089	49,477,656	46,721,120
361	Sanitary Sewers	1980	40.50	56,091	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	29,277	2,271,686	2,480,344	4,752,030	4,487,280
361	Sanitary Sewers	1980	40.50	613,577	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	320,259	24,849,869	27,132,375	51,982,243	49,086,160
361	Sanitary Sewers	1980	40.50	2,135,687	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	1,114,732	86,495,324	94,440,079	180,935,403	170,854,960
361	Sanitary Sewers	1980	40.50	1,674,803	R2.5	80.0	51	R2.5051	0.55269	44.22	84.72	52.195467%	874,171	67,829,522	74,059,789	141,889,310	133,984,240
361	Sanitary Sewers	1979	41.50	50,463	R2.5	80.0	52	R2.5052	0.54488	43.59	85.09	51.228111%	25,851	2,094,215	2,199,682	4,293,897	4,037,040
361	Sanitary Sewers	1979	41.50	16,364	R2.5	80.0	52	R2.5052	0.54488	43.59	85.09	51.228111%	8,383	679,106	713,307	1,392,413	1,309,120
361	Sanitary Sewers	1979	41.50	39,959	R2.5	80.0	52	R2.5052	0.54488	43.59	85.09	51.228111%	20,470	1,658,299	1,741,813	3,400,111	3,196,720
361	Sanitary Sewers	1971	49.50	16,910	R2.5	80.0	62	R2.5062	0.46944	37.56	87.06	43.142660%	7,295	837,045	635,140	1,472,185	1,352,800
361	Sanitary Sewers	1965	55.50	33,639	R2.5	80.0	69	R2.5069	0.41973	33.56	89.08	37.686453%	12,681	1,866,965	1,129,598	2,996,562	2,691,120
361	Sanitary Sewers	1963	57.50	16,240	R2.5	80.0	72	R2.5072	0.39927	31.94	89.44	35.711091%	5,799	933,800	518,706	1,452,506	1,299,200
361	Sanitary Sewers	1963	57.50	24,450	R2.5	80.0	72	R2.5072	0.39927	31.94	89.44	35.711091%	8,731	1,405,875	780,933	2,186,608	1,956,000

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Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
input	input	input	Calculation	Calculation	input	input	Calculation	Calculation	Lookup	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021 - [(20)+0.5]	Col (16)	AUS input	AUS input	Col (21) / (24)	Col (23) & (25)	Lookup Iowa Curves Life Tables @ col (26)	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	Age%	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
361	Sanitary Sewers	1963	57.50	45,814	R2.5	80.0	72	R2.5072	0.39927	31.94	89.44	35.711091%	16,269	2,622,805	1,456,911	4,079,716	3,649,120
361	Sanitary Sewers	1962	58.50	94,847	R2.5	80.0	73	R2.5073	0.39258	31.41	89.91	34.934935%	33,135	5,548,550	2,979,144	8,527,694	7,587,760
361	Sanitary Sewers	1961	59.50	104,901	R2.5	80.0	74	R2.5074	0.38594	30.88	90.38	34.166851%	35,841	6,241,610	3,239,343	9,480,952	8,392,080
361	Sanitary Sewers	1958	62.50	134,995	R2.5	80.0	78	R2.5078	0.36004	28.80	91.30	31.544358%	42,583	8,437,188	3,887,856	12,325,044	10,799,600
361	Sanitary Sewers	1957	63.50	85,788	R2.5	80.0	79	R2.5079	0.35374	28.30	91.80	30.827887%	26,447	5,447,538	2,427,800	7,875,338	6,863,040
361	Sanitary Sewers	1956	64.50	125,742	R2.5	80.0	81	R2.5081	0.34133	27.31	91.81	29.748215%	37,403	8,110,359	3,434,014	11,544,373	10,059,360
361	Sanitary Sewers	1955	65.50	207,140	R2.5	80.0	82	R2.5082	0.33523	26.82	92.32	29.051127%	60,177	13,567,670	5,555,495	19,123,165	16,571,200
361	Sanitary Sewers	1954	66.50	636,685	R2.5	80.0	83	R2.5083	0.32920	26.34	92.84	28.371382%	180,636	42,339,553	16,770,283	59,109,835	50,934,800
361	Sanitary Sewers	1954	66.50	119,998	R2.5	80.0	83	R2.5083	0.32920	26.34	92.84	28.371382%	34,045	7,979,867	3,160,747	11,140,614	9,599,840
361	Sanitary Sewers	1953	67.50	1,211,142	R2.5	80.0	84	R2.5084	0.32325	25.86	93.36	27.699229%	335,477	81,752,085	31,320,132	113,072,217	96,891,360
361	Sanitary Sewers	1953	67.50	172,288	R2.5	80.0	84	R2.5084	0.32325	25.86	93.36	27.699229%	47,722	11,629,440	4,455,368	16,084,808	13,783,040
361	Sanitary Sewers	1953	67.50	63,356	R2.5	80.0	84	R2.5084	0.32325	25.86	93.36	27.699229%	17,549	4,276,530	1,638,386	5,914,916	5,068,480
361	Sanitary Sewers	1953	67.50	14,165	R2.5	80.0	84	R2.5084	0.32325	25.86	93.36	27.699229%	3,924	956,138	366,307	1,322,444	1,133,200
361	Sanitary Sewers	1953	67.50	90,922	R2.5	80.0	84	R2.5084	0.32325	25.86	93.36	27.699229%	25,185	6,137,235	2,351,243	8,488,478	7,273,760
361	Sanitary Sewers	1952	68.50	11,900	R2.5	80.0	86	R2.5086	0.31158	24.93	93.43	26.683078%	3,175	815,150	296,667	1,111,817	952,000
361	Sanitary Sewers	1951	69.50	36,786	R2.5	80.0	87	R2.5087	0.30585	24.47	93.97	26.040226%	9,579	2,556,627	900,153	3,456,780	2,942,880
361	Sanitary Sewers	1950	70.50	41,420	R2.5	80.0	88	R2.5088	0.30021	24.02	94.52	25.412611%	10,526	2,920,110	994,908	3,915,018	3,313,600
361	Sanitary Sewers	1950	70.50	108,125	R2.5	80.0	88	R2.5088	0.30021	24.02	94.52	25.412611%	27,477	7,622,813	2,597,163	10,219,975	8,650,000
361	Sanitary Sewers	1950	70.50	109,299	R2.5	80.0	88	R2.5088	0.30021	24.02	94.52	25.412611%	27,776	7,705,580	2,625,362	10,330,941	8,743,920
361	Sanitary Sewers	1949	71.50	12,010	R2.5	80.0	89	R2.5089	0.29464	23.57	95.07	24.792258%	2,978	858,715	283,076	1,141,791	960,800
361	Sanitary Sewers	1948	72.50	20,840	R2.5	80.0	91	R2.5091	0.28376	22.70	95.20	23.844536%	4,969	1,510,900	473,068	1,983,968	1,667,200
361	Sanitary Sewers	1947	73.50	102,308	R2.5	80.0	92	R2.5092	0.27844	22.28	95.78	23.261641%	23,799	7,519,638	2,279,422	9,799,060	8,184,640
361	Sanitary Sewers	1946	74.50	146,910	R2.5	80.0	93	R2.5093	0.27320	21.86	96.36	22.685762%	33,328	10,944,795	3,211,453	14,156,248	11,752,800
361	Sanitary Sewers	1945	75.50	27,348	R2.5	80.0	94	R2.5094	0.26805	21.44	96.94	22.116773%	6,048	2,064,623	586,298	2,650,921	2,187,680
361	Sanitary Sewers	1944	76.50	18,860	R2.5	80.0	96	R2.5096	0.25800	20.64	97.14	21.247684%	4,007	1,442,790	389,270	1,832,060	1,508,800
361	Sanitary Sewers	1943	77.50	13,112	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	2,716	1,016,180	265,518	1,281,698	1,048,960
361	Sanitary Sewers	1943	77.50	40,548	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	8,400	3,142,470	821,097	3,963,567	3,243,840
361	Sanitary Sewers	1943	77.50	6,304,519	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	1,306,051	488,600,223	127,666,510	616,266,732	504,361,520
361	Sanitary Sewers	1943	77.50	799,696	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	165,666	61,976,440	16,193,844	78,170,284	63,975,680
361	Sanitary Sewers	1943	77.50	542,474	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	112,380	42,041,735	10,985,099	53,026,834	43,397,920
361	Sanitary Sewers	1943	77.50	635,452	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	131,641	49,247,530	12,867,903	62,115,433	50,836,160
361	Sanitary Sewers	1943	77.50	620,957	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	128,638	48,124,168	12,574,379	60,698,547	49,676,560
361	Sanitary Sewers	1943	77.50	108,470	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	22,471	8,406,425	2,196,518	10,602,943	8,677,600
361	Sanitary Sewers	1943	77.50	70,227	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	14,548	5,442,593	1,422,097	6,864,689	5,618,160
361	Sanitary Sewers	1943	77.50	408,437	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	84,612	31,653,868	8,270,849	39,924,717	32,674,960
361	Sanitary Sewers	1943	77.50	563,482	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	116,732	43,669,855	11,410,511	55,080,366	45,078,560
361	Sanitary Sewers	1943	77.50	671,016	R2.5	80.0	97	R2.5097	0.25310	20.25	97.75	20.716113%	139,008	52,003,740	13,588,074	65,591,814	53,681,280
361	Sanitary Sewers	1942	78.50	165,100	R2.5	80.0	98	R2.5098	0.24830	19.86	98.36	20.191135%	33,336	12,960,350	3,278,886	16,239,236	13,208,000
361	Sanitary Sewers	1941	79.50	42,049	R2.5	80.0	99	R2.5099	0.24357	19.49	98.99	19.688957%	8,279	3,342,896	819,535	4,162,431	3,363,920
361	Sanitary Sewers	1940	80.50	99,784	R2.5	80.0	101	R2.5101	0.23440	18.75	99.25	18.891686%	18,851	8,032,612	1,870,950	9,903,562	7,982,720
361	Sanitary Sewers	1939	81.50	9,946	R2.5	80.0	102	R2.5102	0.22994	18.40	99.90	18.418418%	1,832	810,599	183,006	993,605	795,680
361	Sanitary Sewers	1939	81.50	160,985	R2.5	80.0	102	R2.5102	0.22994	18.40	99.90	18.418418%	29,651	13,120,278	2,962,124	16,082,402	12,878,800
361	Sanitary Sewers	1938	82.50	289,742	R2.5	80.0	103	R2.5103	0.22557	18.05	100.55	17.951268%	52,012	23,903,715	5,229,843	29,133,558	23,179,360
361	Sanitary Sewers	1937	83.50	323,831	R2.5	80.0	104	R2.5104	0.22128	17.70	101.20	17.490119%	56,638	27,039,889	5,731,809	32,771,697	25,906,480
361	Sanitary Sewers	1936	84.50	316,072	R2.5	80.0	106	R2.5106	0.21298	17.04	101.54	16.781564%	53,042	26,708,084	5,385,867	32,093,951	25,285,760
361	Sanitary Sewers	1936	84.50	49,806	R2.5	80.0	106	R2.5106	0.21298	17.04	101.54	16.781564%	8,358	4,208,607	848,694	5,057,301	3,984,480
361	Sanitary Sewers	1936	84.50	105,373	R2.5	80.0	106	R2.5106	0.21298	17.04	101.54	16.781564%	17,683	8,904,019	1,795,556	10,699,574	8,429,840
361	Sanitary Sewers	1936	84.50	95,788	R2.5	80.0	106	R2.5106	0.21298	17.04	101.54	16.781564%	16,075	8,094,086	1,632,228	9,726,314	7,663,040
361	Sanitary Sewers	1935	85.50	157,994	R2.5	80.0	107	R2.5107	0.20895	16.72	102.22	16.356877%	25,843	13,508,487	2,641,660	16,150,147	12,639,520
361	Sanitary Sewers	1935	85.50	27,555	R2.5	80.0	107	R2.5107	0.20895	16.72	102.22	16.356877%	4,507	2,355,953	460,720	2,816,672	2,204,400
361	Sanitary Sewers	1935	85.50	6,148	R2.5	80.0	107	R2.5107	0.20895	16.72	102.22	16.356877%	1,006	525,654	102,795	628,449	491,840

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Replacement Cost New less Depreciation (RCNLD)

18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
Account	Description	Placement Year	Age at April 6, 2021 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent New	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)	COR Weighted Age	COR Weighted Normal Remaining Life	COR Weighted Total Life Expectancy	COR Weighted Normal Service Life (NSL)
			years	COR $s		years	% of NSL	Lookup	%	years	years	% of COR	CORLD $s	COR $s * Years	COR $s * Years	COR $s * Years	COR $s * Years
input	input	input	Calculation	Calculation	input	input	Calculation	Calculation	Lookup Lookup Iowa Curves Life Tables @ col [26]	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	2021-((20)+0.5)	Col (16)	AUS input	AUS input	Col (21) / (24)	Col (23) & (25)	[26]	Col (24) * (27)	Col (21) + (28)	Col (28) / (29)	Col (22) * (30)	Col (22) * (21)	Col (22) * (28)	Col (22) * (29)	Col (22) * (24)
Account	Description	Year1	Age	RCN	Iowa	NL	AgeP	IowaLookup	IowaCondition	Rem Life	Total Life	Condition	CORLD	COR * Age	COR * RL	COR * TL	COR * NL
361	Sanitary Sewers	1934	86.50	25,098	R2.5	80.0	108	R2.5106	0.20501	16.40	102.90	15.937804%	4,000	2,170,977	411,607	2,582,584	2,007,840
361	Sanitary Sewers	1933	87.50	93,807	R2.5	80.0	109	R2.5109	0.20115	16.09	103.59	15.532387%	14,570	8,208,113	1,509,355	9,717,467	7,504,560
361	Sanitary Sewers	1932	88.50	5,852	R2.5	80.0	111	R2.5111	0.19369	15.50	104.00	15.000000%	878	517,902	90,706	608,608	468,160
361	Sanitary Sewers	1932	88.50	54,345	R2.5	80.0	111	R2.5111	0.19369	15.50	104.00	15.000000%	8,152	4,809,533	842,348	5,651,880	4,347,600
361	Sanitary Sewers	1932	88.50	70,948	R2.5	80.0	111	R2.5111	0.19369	15.50	104.00	15.000000%	10,642	6,278,898	1,099,694	7,378,592	5,675,840
361	Sanitary Sewers	1932	88.50	32,753	R2.5	80.0	111	R2.5111	0.19369	15.50	104.00	15.000000%	4,913	2,898,641	507,672	3,406,312	2,620,240
361	Sanitary Sewers	1931	89.50	357,125	R2.5	80.0	112	R2.5112	0.19008	15.21	104.71	15.000000%	53,569	31,962,688	5,431,871	37,394,559	28,570,000
361	Sanitary Sewers	1931	89.50	12,430	R2.5	80.0	112	R2.5112	0.19008	15.21	104.71	15.000000%	1,866	1,113,291	189,197	1,302,488	995,120
361	Sanitary Sewers	1930	90.50	510,378	R2.5	80.0	113	R2.5113	0.18654	14.92	105.42	15.000000%	76,557	46,189,209	7,614,840	53,804,049	40,830,240
361	Sanitary Sewers	1930	90.50	111,889	R2.5	80.0	113	R2.5113	0.18654	14.92	105.42	15.000000%	16,783	10,125,955	1,669,384	11,795,338	8,951,120
361	Sanitary Sewers	1930	90.50	3,727	R2.5	80.0	113	R2.5113	0.18654	14.92	105.42	15.000000%	559	337,294	55,607	392,900	298,160
361	Sanitary Sewers	1930	90.50	61,225	R2.5	80.0	113	R2.5113	0.18654	14.92	105.42	15.000000%	9,184	5,540,863	913,477	6,454,340	4,898,000
361	Sanitary Sewers	1928	92.50	115,578	R2.5	80.0	116	R2.5116	0.17639	14.11	106.61	15.000000%	17,336	10,690,780	1,630,777	12,321,557	9,246,080
361	Sanitary Sewers	1927	93.50	147,776	R2.5	80.0	117	R2.5117	0.17315	13.85	107.35	15.000000%	22,166	13,817,056	2,046,698	15,863,754	11,822,080
361	Sanitary Sewers	1926	94.50	651,141	R2.5	80.0	118	R2.5118	0.16998	13.60	108.10	15.000000%	97,671	61,532,825	8,855,518	70,388,342	52,091,280
361	Sanitary Sewers	1926	94.50	84,075	R2.5	80.0	118	R2.5118	0.16998	13.60	108.10	15.000000%	12,611	7,945,088	1,143,420	9,088,508	6,726,000
361	Sanitary Sewers	1926	94.50	37,923	R2.5	80.0	118	R2.5118	0.16998	13.60	108.10	15.000000%	5,688	3,583,724	515,753	4,099,476	3,033,840
361	Sanitary Sewers	1925	95.50	822,696	R2.5	80.0	119	R2.5119	0.16687	13.35	108.85	15.000000%	123,404	78,567,468	10,982,992	89,550,460	65,815,680
361	Sanitary Sewers	1925	95.50	31,125	R2.5	80.0	119	R2.5119	0.16687	13.35	108.85	15.000000%	4,669	2,972,438	415,519	3,387,956	2,490,000
361	Sanitary Sewers	1925	95.50	22,731	R2.5	80.0	119	R2.5119	0.16687	13.35	108.85	15.000000%	3,410	2,170,811	303,459	2,474,269	1,818,480
361	Sanitary Sewers	1925	95.50	68,004	R2.5	80.0	119	R2.5119	0.16687	13.35	108.85	15.000000%	10,201	6,494,382	907,853	7,402,235	5,440,320
361	Sanitary Sewers	1924	96.50	13,361	R2.5	80.0	121	R2.5121	0.16085	12.87	109.37	15.000000%	2,004	1,289,337	171,956	1,461,293	1,068,880
361	Sanitary Sewers	1922	98.50	38,900	R2.5	80.0	123	R2.5123	0.15505	12.40	110.90	15.000000%	5,835	3,831,650	482,360	4,314,010	3,112,000
361	Sanitary Sewers	1921	99.50	4,729	R2.5	80.0	124	R2.5124	0.15223	12.18	111.68	15.000000%	709	470,536	57,599	528,135	378,320
361	Sanitary Sewers	1919	101.50	32,280	R2.5	80.0	127	R2.5127	0.15000	12.00	113.50	15.000000%	4,842	3,276,420	387,360	3,663,780	2,582,400
361	Sanitary Sewers	1917	103.50	52,762	R2.5	80.0	129	R2.5129	0.15000	12.00	115.50	15.000000%	7,914	5,460,867	633,144	6,094,011	4,220,960
361	Sanitary Sewers	1917	103.50	686	R2.5	80.0	129	R2.5129	0.15000	12.00	115.50	15.000000%	103	71,001	8,232	79,233	54,880
361	Sanitary Sewers	1917	103.50	48,456	R2.5	80.0	129	R2.5129	0.15000	12.00	115.50	15.000000%	7,268	5,015,196	581,472	5,596,668	3,876,480
361	Sanitary Sewers	1917	103.50	22,399	R2.5	80.0	129	R2.5129	0.15000	12.00	115.50	15.000000%	3,360	2,318,297	268,788	2,587,085	1,791,920
361	Sanitary Sewers	1916	104.50	15,456	R2.5	80.0	131	R2.5131	0.15000	12.00	116.50	15.000000%	2,318	1,615,152	185,472	1,800,624	1,236,480
361	Sanitary Sewers	1912	108.50	26,406	R2.5	80.0	136	R2.5136	0.15000	12.00	120.50	15.000000%	3,961	2,865,051	316,872	3,181,923	2,112,480
				86,834,642									**44,659,887**	**3,786,801,134**	**1,937,403,896**	**7,726,205,087**	**7,106,787,360**
	Accounts 354.3, 355, 360 - Structures & Improvements - Pumping																
354.3	7.5 HP Smith & Loveless Package Pump Station	1980	40.50	492,235	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	89,822	19,935,518	4,449,804	24,385,322	22,150,575
354.3	Wet Well Structure	1980	40.50	63,287	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	11,549	2,563,124	572,114	3,135,238	2,847,915
354.3	Valve Vault	1980	40.50	11,139	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	2,033	451,130	100,697	551,826	501,255
354.3	Plug Valves	1980	40.50	11,645	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	2,125	471,623	105,271	576,893	524,025
354.3	Check Valves	1980	40.50	9,620	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	1,755	389,610	86,965	476,575	432,900
355.3	Generator	1980	40.50	40,784	R3.0	35.0	116	R3.0116	0.15000	5.25	45.75	15.000000%	6,118	1,651,752	214,116	1,865,868	1,427,440
354.3	Automatic Transfer Switch	1980	40.50	8,860	R4.0	45.0	90	R4.0090	0.20092	9.04	49.54	18.247881%	1,617	358,830	80,094	438,924	398,700
360.21	Forcemain (ft)	1980	40.50	166,068	R3.0	75.0	54	R3.0054	0.50513	37.88	78.38	48.328555%	80,258	6,725,754	6,290,656	13,016,410	12,455,100
				803,638									**195,277**	**32,547,341**	**11,899,717**	**44,447,056**	**40,737,810**
				166,270,900									**64,146,496**	**9,345,764,745**	**5,156,166,683**	**14,501,931,353**	**11,792,517,995**
				474,152,569									**218,368,227**	**18,848,328,106**	**13,095,182,502**	**31,516,028,943**	**27,700,139,428**

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.00	Land & Land Rights - Land	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.05	Land & Land Rights - Easements	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
360.21	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.00	Mains Gravity	R2.5	80.00	0.00%	MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	50.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	S2.0	30.00	0.00%	MACRS	25.00
371.20	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.00	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
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Cost Approach

Replacement Cost New less Depreciation to Fair Market Value

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Pennsylvania American Water Company
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Fair Market Value

(36)	(37)	(39)	(40)	(41)
Account	Description	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
		CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Prelim CORLD	EO%	FMV
353.00	Land & Land Rights - Land	3,527,270	0.00%	3,527,270
353.05	Land & Land Rights - Easements	1,794,835	0.00%	1,794,835
354.30	Stuctures & Improvements - Pumping	108,901	0.00%	108,901
354.40	Stuctures & Improvements - Treatment	106,434,616	0.00%	106,434,616
355.30	Generating Equipment - Pumping	6,118	0.00%	6,118
360.21	Collection Sewers - Force - Mains	80,258	0.00%	80,258
361.00	Mains Gravity	46,659,867	0.00%	46,659,867
361.70	Collection Sewers - Gravity - Manholes	9,902,159	0.00%	9,902,159
363.00	Service Laterals	7,389,193	0.00%	7,389,193
364.00	Flow Measuring Devices	85,852	0.00%	85,852
371.20	Pumping Equipment	71,710	0.00%	71,710
380.00	Treatment and Disposal Equipment	41,866,791	0.00%	41,866,791
390.00	Office Furniture and Equipment	31,919	0.00%	31,919
391.00	Transportation Equipment	97,104	0.00%	97,104
394.00	Laboratory Equipment	309,634	0.00%	309,634
	Grand Total	218,366,227	0.00%	218,366,227

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(36)	(37)	(38)	(39)	(40)	(41)

Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
353	City of York-York Water Co-6/30/1	1939	2,900,303	0.00%	2,900,303
353	York City Sewer Auth-Merchants T	1984	285,618	0.00%	285,618
353	York City Sewer Auth-Merchants T	1985	299,551	0.00%	299,551
353	York City Sewer Auth-Theodore R	1986	41,798	0.00%	41,798
353	York City Sewer Auth-Theodore R	1994	-	0.00%	-
			3,527,270		**3,527,270**
353.05	City of York-Guardian Trust Co.-4	1912	864,000	0.00%	864,000
353.05	City of York-P A & S Small Land C	1914	1,036	0.00%	1,036
353.05	City of York-Jane Gresly-5658	1915	32,000	0.00%	32,000
353.05	City of York-Joseph R. Jones-635	1917	1,036	0.00%	1,036
353.05	City of York-Bilmeyer & Small Co.	1918	1,036	0.00%	1,036
353.05	City of York-West End Sewer Co.-	1919	115,200	0.00%	115,200
353.05	City of York-Jacob Bare Est.-9701	1926	17,455	0.00%	17,455
353.05	City of York-William M. Boger-976	1926	1,036	0.00%	1,036
353.05	City of York-Ralph K. Trimmer-97	1926	1,036	0.00%	1,036
353.05	City of York-Grier Hersh-11514	1931	1,036	0.00%	1,036
353.05	City of York-York County Poor Dis	1932	1,036	0.00%	1,036
353.05	City of York-Annie M. Menough-11	1932	1,036	0.00%	1,036
353.05	City of York-Frederick C. Boesch E	1932	2,400	0.00%	2,400
353.05	City of York-Community Swimmin	1932	1,036	0.00%	1,036
353.05	City of York-Norard HosieryMills Ir	1933	1,036	0.00%	1,036
353.05	City of York-Agnes Kehm-12409	1933	1,036	0.00%	1,036
353.05	City of York-Sallie S. Bond-34324	1993	1,036	0.00%	1,036
353.05	City of York-York Hospital-13281	1936	610,612	0.00%	610,612
353.05	City of York-David M. Myers Exr-1	1937	1,036	0.00%	1,036
353.05	City of York-York County Institutio	1938	1,036	0.00%	1,036
353.05	City of York-J. Victor Jones-14041	1938	1,036	0.00%	1,036
353.05	City of York-York Tack & Nail Wor	1938	1,036	0.00%	1,036
353.05	City of York-New York WireCloth C	1938	1,036	0.00%	1,036
353.05	City of York-Home Furniture Co-1	1938	1,036	0.00%	1,036
353.05	City of York-David P. Klinedinst Tr	1938	1,036	0.00%	1,036
353.05	City of York-American Chain & Ca	1938	1,036	0.00%	1,036
353.05	City of York-George H. Wolf-1404	1938	1,036	0.00%	1,036
353.05	City of York-Maryland & Penna. Ri	1938	1,036	0.00%	1,036
353.05	City of York-York County Institutio	1938	1,036	0.00%	1,036
353.05	City of York-Ella L. Kieffman-1408	1938	1,036	0.00%	1,036
353.05	City of York-George D. Deardorff-	1938	1,036	0.00%	1,036
353.05	City of York-Sarah E. Miller-14082	1938	1,036	0.00%	1,036
353.05	City of York-Howard E. Holland-14	1939	1,036	0.00%	1,036

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
353.05	City of York-Ray S. Noonan-1523	1941	1,036	0.00%	1,036
353.05	City of York-Fannie M. Free-1662	1945	1,036	0.00%	1,036
353.05	City of York-C. Kauffman Miller-17	1947	1,036	0.00%	1,036
353.05	City of York-David Y. Herbst-1857	1950	1,036	0.00%	1,036
353.05	City of York-Penn Dairies Inc.-186	1950	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1952	1,036	0.00%	1,036
353.05	York City Sewer Auth-Commonwe	1969	1,036	0.00%	1,036
353.05	York City Sewer Auth-GTE Sylvan	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-Robert Eich	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-York Stone a	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-York Drilling	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-Williams To	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-Luther D. Mi	1971	1,036	0.00%	1,036
353.05	York City Sewer Auth-Sun Oil Con	1972	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-York City Re	1987	4,731	0.00%	4,731
353.05	York City Sewer Auth-Champion Ir	1987	6,401	0.00%	6,401
353.05	York City Sewer Auth-Larry Liebgc	1987	5,566	0.00%	5,566
353.05	York City Sewer Auth-York City Sc	1987	14,193	0.00%	14,193
353.05	York City Sewer Auth-York Collegi	1987	15,780	0.00%	15,780
353.05	York City Sewer Auth-York City Re	1987	1,392	0.00%	1,392
353.05	York City Sewer Auth-Robert D. H-	1987	8,349	0.00%	8,349
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-L. Levetan &	1987	4,453	0.00%	4,453
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-York City Re	1987	3,340	0.00%	3,340
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1987	1,036	0.00%	1,036
353.05	York City Sewer Auth-Maryland ar	1987	2,087	0.00%	2,087
353.05	York City Sewer Auth-Dennis L. Ei	1988	1,947	0.00%	1,947
353.05	York City Sewer Auth-York City Re	1988	1,036	0.00%	1,036
353.05	York City Sewer Auth-Evelyn Jane	1988	1,036	0.00%	1,036
353.05	York City Sewer Auth-Maryland ar	1988	1,036	0.00%	1,036
353.05	York City Sewer Auth-Columbia G	1989	1,036	0.00%	1,036
353.05	York City Sewer Auth-City of York-	1993	1,036	0.00%	1,036
353.05	York City Sewer Auth-Dentsply Int	1993	1,036	0.00%	1,036
353.05	York City Sewer Auth-York Buildin	2000	1,036	0.00%	1,036

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			COR/LU $'s	% of Preliminary Cost Approach	Appraisal Date Value $'s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
353.05	York City Sewer Auth-Maryland ar	2001	1,452	0.00%	1,452
353.05	York City Sewer Auth-Maryland ar	2001	1,036	0.00%	1,036
353.05	York City Sewer Auth-York City Sc	2001	1,036	0.00%	1,036
353.05	York City Sewer Auth-John E. Gea	2001	1,036	0.00%	1,036
353.05	York City Sewer Auth-B.B., Jr., Inc	2002	1,036	0.00%	1,036
353.05	York City Sewer Auth-Creekside Ir	2003	1,036	0.00%	1,036
353.05	York City Sewer Auth-John E. Gea	2008	1,036	0.00%	1,036
353.05	York City Sewer Auth***-Cresticon	2008	1,036	0.00%	1,036
353.05	York City Sewer Auth-Svedala Ind	2008	1,036	0.00%	1,036
353.05	York City Sewer Auth-York Colleg	2008	1,036	0.00%	1,036
353.05	York City Sewer Auth-Metso Miner	2009	1,036	0.00%	1,036
353.05	York City Sewer Auth-Metso Miner	2010	1,036	0.00%	1,036
353.05	York City Sewer Auth-John E. Gea	2010	14,065	0.00%	14,065
353.05	York City Sewer Auth-Molt LLC-43	2018	1,036	0.00%	1,036
			1,794,835		**1,794,835**
354.4	Structure	1988	2,147,979	0.00%	2,147,979
354.4	Piping	1988	74,013	0.00%	74,013
354.4	Electrical Wiring	1988	90,765	0.00%	90,765
380	Electrical Equipment	1988	40,758	0.00%	40,758
354.4	Summitt	2016	10,791	0.00%	10,791
354.4	EIM Gate Operators	1999	13,041	0.00%	13,041
380	Pista-grit No. 1	2002	9,825	0.00%	9,825
380	Grit Dump Facility	2001	93,630	0.00%	93,630
380	Equipment	2004	122,509	0.00%	122,509
354.4	Piping	2004	6,471	0.00%	6,471
354.4	Electrical Wiring	2004	15,743	0.00%	15,743
354.4	Structure	2008	113,587	0.00%	113,587
354.4	Structure (HVAC, Odor Control)	2009	64,499	0.00%	64,499
354.4	Piping	2009	51,018	0.00%	51,018
380	Process Equipment	2009	240,465	0.00%	240,465
380	Process Equipment	2011	937,173	0.00%	937,173
354.4	Piping	2011	22,055	0.00%	22,055
354.4	Structure	2011	76,702	0.00%	76,702
354.4	Electrical Wiring	2011	189,980	0.00%	189,980
354.4	Electrical Equipment	2011	19,315	0.00%	19,315
354.4	Structure	2012	5,126	0.00%	5,126
380	Process Equipment	2012	6,529	0.00%	6,529
354.4	Structure (Overhead Doors)	2014	12,976	0.00%	12,976
354.4	Overhead Door	2017	19,759	0.00%	19,759
			4,384,709		**4,384,709**

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraised Depr Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Structures	1990	152,946	0.00%	152,946
380	Process Equipment	1990	276,528	0.00%	276,528
354.4	Electrical Equipment	1990	64,025	0.00%	64,025
354.4	Channel Improvement	1995	14,736	0.00%	14,736
			508,235		**508,235**
354.4	Structure	1954	266,835	0.00%	266,835
354.4	Structure	1963	493,964	0.00%	493,964
354.4	Structure	1981	5,986	0.00%	5,986
354.4	Structure	1991	3,856,387	0.00%	3,856,387
354.4	Piping	2020	107,174	0.00%	107,174
354.4	Electrical Wiring	2020	52,972	0.00%	52,972
354.4	Electrical Equipment	2020	82,895	0.00%	82,895
380	Process Equipment	2020	828,184	0.00%	828,184
364	Flow Meters	2020	30,737	0.00%	30,737
380	Hand-wheel Gate	2020	79,758	0.00%	79,758
380	Stub Shafts & Chain	2020	134,974	0.00%	134,974
354.4	Wireway	2020	36,957	0.00%	36,957
380	Whipps Sluice Gate	2016	15,909	0.00%	15,909
380	Whipps Sluice Gate	2016	8,608	0.00%	8,608
354.4	Vertical Pump	2016	8,264	0.00%	8,264
			6,009,604		**6,009,604**
354.4	Structure	1916	152,884	0.00%	152,884
354.4	Structure	1990	499,903	0.00%	499,903
380	Process Equipment	1990	147,130	0.00%	147,130
354.4	Piping	1990	40,236	0.00%	40,236
354.4	Electrical Wiring	1990	129,351	0.00%	129,351
354.4	Electrical Equipment	1990	159,571	0.00%	159,571
354.4	UPS-PSPS	2002	9,284	0.00%	9,284
354.4	Wall Closure	1995	8,098	0.00%	8,098
354.4	Structure	1996	16,568	0.00%	16,568
380	Process Equipment	1996	57,028	0.00%	57,028
354.4	Piping	1996	10,932	0.00%	10,932
354.4	Electrical Wiring	1996	11,011	0.00%	11,011
354.4	Ind. Hot Water Sys.	1997	11,109	0.00%	11,109
354.4	AC System	1997	155,528	0.00%	155,528
354.4	Vaughin	2020	147,827	0.00%	147,827
354.4	Structure	2009	19,944	0.00%	19,944
380	Process Equipment	2001	304,578	0.00%	304,578
354.4	Electrical Wiring	2001	64,687	0.00%	64,687

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Asmnt	Eng Asmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Equipment	2001	422,463	0.00%	422,463
354.4	Structure	2008	3,281	0.00%	3,281
380	Process Equipment	2008	83,262	0.00%	83,262
354.4	Piping	2008	19,685	0.00%	19,685
354.4	Electrical Wiring	2008	4,921	0.00%	4,921
354.4	Electrical Equipment	2008	1,312	0.00%	1,312
380	Process Equipment	2010	125,323	0.00%	125,323
354.4	Piping	2010	35,029	0.00%	35,029
354.4	Structure	2010	7,931	0.00%	7,931
354.4	Electrical Wiring	2010	91,582	0.00%	91,582
354.4	Electrical Equipment	2010	127,403	0.00%	127,403
380	Process Equipment	2012	19,553	0.00%	19,553
354.4	Electrical Wiring	2012	542,343	0.00%	542,343
354.4	Electrical Equipment	2012	877,908	0.00%	877,908
			4,307,665		**4,307,665**
354.4	Structure	1990	26,346	0.00%	26,346
354.4	Structure	1981	73,107	0.00%	73,107
380	Process Equipment	1990	151,569	0.00%	151,569
354.4	Structure	2008	19,685	0.00%	19,685
380	Process Equipment	2008	7,501	0.00%	7,501
354.4	Piping	2008	26,246	0.00%	26,246
354.4	Electrical Wiring	2008	4,921	0.00%	4,921
354.4	Electrical Equipment	2008	1,312	0.00%	1,312
			310,687		**310,687**
354.4	Structure	1954	91,728	0.00%	91,728
354.4	Structure	1963	129,224	0.00%	129,224
354.4	Structure	1981	1,995	0.00%	1,995
354.4	Structure	1990	48,815	0.00%	48,815
380	Process Equipment	1990	261,943	0.00%	261,943
354.4	Piping	1990	118,079	0.00%	118,079
354.4	Piping	1963	2,766	0.00%	2,766
354.4	Electrical Wiring	1990	12,941	0.00%	12,941
354.4	Electrical Equipment	1990	1,328	0.00%	1,328
354.4	Baffles	2014	18,565	0.00%	18,565
			687,384		**687,384**
354.4	Structure	1954	27,084	0.00%	27,084
354.4	Structure	1991	93,065	0.00%	93,065
380	Process Equipment	1991	58,625	0.00%	58,625
354.4	Piping	1991	65,213	0.00%	65,213

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Equipment	1991	1,412	0.00%	1,412
380	Drainage Pump	1998	6,068	0.00%	6,068
354.4	Structure	2001	6,577	0.00%	6,577
380	Process Equipment	2001	120,745	0.00%	120,745
380	Process Equipment	2010	95,007	0.00%	95,007
354.4	Piping	2010	18,275	0.00%	18,275
354.4	Structure	2010	13,642	0.00%	13,642
354.4	Electrical Wiring	2010	7,163	0.00%	7,163
354.4	Electrical Wiring	2012	51,163	0.00%	51,163
354.4	Roof Replacement	2013	10,559	0.00%	10,559
380	Prim. Effl. Pump #2 Rehab.	2013	32,559	0.00%	32,559
			607,157		**607,157**
354.4	Structure	1981	272,128	0.00%	272,128
380	Process Equipment	1981	99,718	0.00%	99,718
354.4	Piping	1981	133,473	0.00%	133,473
354.4	Electrical Wiring	1981	4,832	0.00%	4,832
354.4	Electrical Equipment	1981	3,026	0.00%	3,026
354.4	Structure	2008	76,512	0.00%	76,512
			589,689		**589,689**
354.4	Structure	1991	10,661	0.00%	10,661
354.4	Structure	1981	1,631,430	0.00%	1,631,430
380	Process Equipment	1991	234,166	0.00%	234,166
354.4	Piping	1991	99,061	0.00%	99,061
354.4	Electrical Wiring	1991	2,514	0.00%	2,514
354.4	Electrical Wiring	1981	14,966	0.00%	14,966
354.4	Electrical Equipment	1991	93,574	0.00%	93,574
354.4	Electrical Equipment	1981	8,979	0.00%	8,979
			2,095,351		**2,095,351**
354.4	Structure	1981	389,045	0.00%	389,045
354.4	Electrical Wiring	1981	48,152	0.00%	48,152
354.4	Electrical Equipment	1991	3,055	0.00%	3,055
354.4	Electrical Equipment	1981	52,914	0.00%	52,914
354.4	Structure	2011	77,834	0.00%	77,834
354.4	Electrical Wiring	2011	16,211	0.00%	16,211
			587,211		**587,211**
354.4	Structure	1991	180,526	0.00%	180,526
354.4	Structure	1981	901,537	0.00%	901,537

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (37)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
380	Process Equipment	1991	36,922	0.00%	36,922
380	Process Equipment	1981	173,702	0.00%	173,702
354.4	Piping	1981	33,306	0.00%	33,306
354.4	Electrical Wiring	1981	25,608	0.00%	25,608
354.4	Electrical Equipment	1981	8,384	0.00%	8,384
			1,359,985		**1,359,985**
354.4	Structure	1991	1,569	0.00%	1,569
354.4	Structure	1981	185,624	0.00%	185,624
380	Process Equipment	1991	6,466	0.00%	6,466
354.4	Electrical Wiring	1981	28,047	0.00%	28,047
354.4	Electrical Equipment	1991	5,063	0.00%	5,063
354.4	Electrical Equipment	1981	12,244	0.00%	12,244
354.4	Structure	2008	84,148	0.00%	84,148
380	Process Equipment	2011	28,987	0.00%	28,987
354.4	Structure	2011	95,481	0.00%	95,481
354.4	Electrical Wiring	2011	221,427	0.00%	221,427
354.4	Electrical Equipment	2011	750,860	0.00%	750,860
			1,419,916		**1,419,916**
354.4	Structure	1981	103,264	0.00%	103,264
380	Process Equipment	1981	44,458	0.00%	44,458
354.4	Piping	1981	18,062	0.00%	18,062
354.4	Electric Equipmnet	1981	11,959	0.00%	11,959
			177,743		**177,743**
354.4	Structure	1954	873,612	0.00%	873,612
354.4	Structure	1981	1,995	0.00%	1,995
354.4	Structure	1990	1,900,040	0.00%	1,900,040
354.4	Electrical Equipment	1990	57,730	0.00%	57,730
380	MLSS Analyzer	1999	4,762	0.00%	4,762
380	Process Equipment	2012	3,578,314	0.00%	3,578,314
354.4	Piping	2012	464,544	0.00%	464,544
354.4	Structure	2012	315,858	0.00%	315,858
354.4	Electrical Wiring	2012	309,625	0.00%	309,625
			7,506,480		**7,506,480**
354.4	Structure	1954	448,438	0.00%	448,438
354.4	Structure	1963	390,428	0.00%	390,428
354.4	Structure	1990	119,634	0.00%	119,634
380	Process Equipment	1963	80,788	0.00%	80,788
380	Process Equipment	1990	428,118	0.00%	428,118

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Piping	1963	83,431	0.00%	83,431
354.4	Piping	1990	129,368	0.00%	129,368
354.4	Electrical Wiring	1990	23,485	0.00%	23,485
354.4	Electrical Equipment	1990	1,111	0.00%	1,111
380	Process Equipment	2010	255,893	0.00%	255,893
380	Process Equipment	2011	271,055	0.00%	271,055
354.4	Structure	2011	156,551	0.00%	156,551
354.4	Electrical Wiring	2011	16,490	0.00%	16,490
380	Process Piping	2012	258,386	0.00%	258,386
380	Process Equipment	2012	83,801	0.00%	83,801
354.4	Structure	2012	77,316	0.00%	77,316
354.4	Electrical Wiring	2012	2,690	0.00%	2,690
			2,826,983		**2,826,983**
354.4	Structure	1990	854,356	0.00%	854,356
380	Process Equipment	1990	220,533	0.00%	220,533
354.4	Piping	1990	242,937	0.00%	242,937
354.4	Electrical Wiring	1990	53,690	0.00%	53,690
354.4	Structure	2003	22,732	0.00%	22,732
380	Process Equipment	2003	62,189	0.00%	62,189
354.4	Piping	2003	15,213	0.00%	15,213
354.4	Electrical Wiring	2003	7,893	0.00%	7,893
380	Process Equipment	2010	46,722	0.00%	46,722
354.4	Piping	2010	6,334	0.00%	6,334
354.4	Electrical Wiring	2010	5,582	0.00%	5,582
354.4	Electrical Equipment	2010	3,509	0.00%	3,509
354.4	Electrical Equipment	2011	37,999	0.00%	37,999
354.4	Electrical Wiring	2011	5,640	0.00%	5,640
380	Process Equipment	2011	274,529	0.00%	274,529
380	Process Equipment	2012	23,791	0.00%	23,791
354.4	Roof Replacement	2013	34,300	0.00%	34,300
380	Pump Replacement	2013	6,986	0.00%	6,986
			1,924,935		**1,924,935**
354.4	Structure	1988	57,712	0.00%	57,712
354.4	Piping	1988	3,847	0.00%	3,847
354.4	Electrical Wiring	1988	3,915	0.00%	3,915
354.4	Electrical Equipment	1988	1,539	0.00%	1,539
354.4	Structure	2001	119,347	0.00%	119,347
354.4	Piping	2001	164,416	0.00%	164,416
			350,776		**350,776**

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Debt Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Structure	1988	58,482	0.00%	58,482
380	Process Eulpment	1988	15,951	0.00%	15,951
354.4	Electric Wiring	1988	3,170	0.00%	3,170
			77,603		**77,603**
354.4	Structure	1988	5,866,038	0.00%	5,866,038
380	ATI self-cleaning unit	2003	5,080	0.00%	5,080
354.4	Piping	1988	30,780	0.00%	30,780
354.4	Electrical Equipment	1988	10,773	0.00%	10,773
380	Process Equipment	2011	5,094,996	0.00%	5,094,996
354.4	Piping	2011	712,264	0.00%	712,264
354.4	Structure	2011	382,729	0.00%	382,729
354.4	Electrical Wiring	2011	620,771	0.00%	620,771
354.4	Structure	2012	3,423	0.00%	3,423
			12,726,854		**12,726,854**
354.4	Structure	1988	76,949	0.00%	76,949
380	Process Equipment	1988	15,951	0.00%	15,951
354.4	Piping	1988	15,390	0.00%	15,390
354.4	Electrical Wiring	1988	4,500	0.00%	4,500
380	Process Equipment	2011	130,370	0.00%	130,370
354.4	Piping	2011	3,243	0.00%	3,243
354.4	Structure	2011	34,862	0.00%	34,862
354.4	Electrical Wiring	2011	11,887	0.00%	11,887
354.4	Electrical Equipment	2011	3,243	0.00%	3,243
			296,395		**296,395**
354.4	Structure	1988	2,255,775	0.00%	2,255,775
380	Process Equipment	1988	586,984	0.00%	586,984
354.4	Piping	1988	12,312	0.00%	12,312
354.4	Electrical Wiring	1988	83,918	0.00%	83,918
354.4	Electrical Equipment	1988	4,617	0.00%	4,617
380	Process Equipment	2010	471,500	0.00%	471,500
			3,415,106		**3,415,106**
354.4	Structure	1988	803,436	0.00%	803,436
380	Process Equipment	1988	79,782	0.00%	79,782
354.4	Piping	1988	283,174	0.00%	283,174
354.4	Electrical Wiring	1988	59,751	0.00%	59,751
354.4	Structure	2008	132,100	0.00%	132,100
380	Process Equipment	2008	83,262	0.00%	83,262
354.4	Piping	2008	13,123	0.00%	13,123

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * (1.00-Col (40))
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Wiring	2008	4,921	0.00%	4,921
354.4	Electrical Equipment	2008	1,312	0.00%	1,312
380	Process Equipment	2011	265,961	0.00%	265,961
354.4	Piping	2011	226,592	0.00%	226,592
354.4	Electrical Wiring	2011	79,261	0.00%	79,261
354.4	Electrical Equipment	2011	1,322,903	0.00%	1,322,903
			3,355,578		**3,355,578**
354.4	Structure	1988	96,956	0.00%	96,956
380	Process Equipment	1988	87,729	0.00%	87,729
354.4	Structure	2008	19,685	0.00%	19,685
380	Process Equipment	2008	7,501	0.00%	7,501
354.4	Piping	2008	26,246	0.00%	26,246
354.4	Electrical Wiring	2008	4,921	0.00%	4,921
354.4	Electrical Equipment	2008	1,312	0.00%	1,312
			244,350		**244,350**
354.4	Structure	1989	2,424,012	0.00%	2,424,012
354.4	Piping	2021	66,078	0.00%	66,078
354.4	Electrical Wiring	2021	88,800	0.00%	88,800
354.4	Electrical Equipment	2021	240,000	0.00%	240,000
380	1-EIM Gate Operator	2021	3,360	0.00%	3,360
380	Filter Equip. Replace.	2021	6,515,594	0.00%	6,515,594
354.4	Structure	2021	51,581	0.00%	51,581
380	Mechanical Equipment	2021	192,000	0.00%	192,000
354.4	Structure	2021	500,912	0.00%	500,912
380	Weir Gates and Operators	2015	139,959	0.00%	139,959
380	Mud Valves	2014	27,166	0.00%	27,166
380	Stop Log	2015	11,389	0.00%	11,389
			10,260,851		**10,260,851**
354.4	Structure	1989	675,116	0.00%	675,116
354.4	Structure	1981	465,272	0.00%	465,272
380	Process Equipment	1989	146,224	0.00%	146,224
380	Process Equipment	1981	50,993	0.00%	50,993
354.4	Piping	1981	19,963	0.00%	19,963
354.4	3-EIM Gate Operators	1999	13,693	0.00%	13,693
354.4	Structure	2001	272,310	0.00%	272,310
380	Process Equipment	2001	1,275,497	0.00%	1,275,497
354.4	Electrical Wiring	2001	51,790	0.00%	51,790
354.4	Electrical Equipment	2001	30,406	0.00%	30,406
380	Process Equipment	2013	122,706	0.00%	122,706

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			RCNLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
			3,123,970		**3,123,970**
354.4	Structure	1989	1,592,981	0.00%	1,592,981
354.4	Structure	1969	189,065	0.00%	189,065
380	Process Equipment	1969	2,196	0.00%	2,196
354.4	Piping	1969	823	0.00%	823
354.4	Electrical Wiring	1989	37,426	0.00%	37,426
354.4	Electrical Equipment	1989	5,197	0.00%	5,197
354.4	Electrical Equipment	1969	3,185	0.00%	3,185
380	Process Equipment	1998	15,865	0.00%	15,865
354.4	Structure	2008	272,223	0.00%	272,223
			2,118,961		**2,118,961**
354.4	Structure	1991	762,294	0.00%	762,294
354.4	Structure	1961	3,815,004	0.00%	3,815,004
380	Process Equipment	1991	1,274,066	0.00%	1,274,066
380	Process Equipment	1981	80,417	0.00%	80,417
354.4	Piping	1991	299,346	0.00%	299,346
354.4	Piping	1981	149,656	0.00%	149,656
354.4	Electrical Wiring	1991	141,151	0.00%	141,151
354.4	Electrical Wiring	1981	56,238	0.00%	56,238
354.4	Electrical Equipment	1991	37,411	0.00%	37,411
354.4	Electrical Equipment	1981	47,949	0.00%	47,949
354.4	Structure	1989	138,700	0.00%	138,700
354.4	Piping	1989	40,533	0.00%	40,533
354.4	Electrical Equipment	1989	4,730	0.00%	4,730
380	Polymer Mixers	1998	47,855	0.00%	47,855
380	Sludge Feed Pumps	2016	60,286	0.00%	60,286
380	P-23 Utility Pump	1999	9,900	0.00%	9,900
380	P-24 Utility Pump	2000	9,879	0.00%	9,879
354.4	Structure	2003	159,148	0.00%	159,148
380	Process Equipment	2003	1,701,027	0.00%	1,701,027
354.4	Piping	2003	337,205	0.00%	337,205
354.4	Electrical Wiring	2003	315,700	0.00%	315,700
354.4	Electrical Equipment	2003	14,318	0.00%	14,318
380	Sludge Sampler	2004	15,926	0.00%	15,926
364	N. Gas Flowmeter	2004	2,691	0.00%	2,691
380	Process Equip	2004	179,082	0.00%	179,082
354.4	Electric Equip	2004	42,530	0.00%	42,530
354.4	Electric Wiring	2004	34,441	0.00%	34,441
354.4	Piping	2004	46,242	0.00%	46,242
354.4	Structure	2004	17,968	0.00%	17,968

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	ED%	FMV
380	Process Equip	2005	677,111	0.00%	677,111
354.4	Piping	2005	6,568	0.00%	6,568
354.4	Electric Equip	2005	18,220	0.00%	18,220
354.4	Electric Wiring	2005	24,926	0.00%	24,926
354.4	Structure	2005	94,434	0.00%	94,434
380	Process Equip	2005	117,591	0.00%	117,591
354.4	Electric Wiring	2005	83,875	0.00%	83,875
380	Process Equip	2006	418,971	0.00%	418,971
354.4	Structure	2006	276,138	0.00%	276,138
354.4	Piping	2006	132,557	0.00%	132,557
354.4	Electrical Equip	2006	17,390	0.00%	17,390
354.4	Electrical Wiring	2006	16,516	0.00%	16,516
354.4	Structure	2008	133,301	0.00%	133,301
380	Process Equipment	2010	130,680	0.00%	130,680
380	Process Equipment	2010	2,352,694	0.00%	2,352,694
354.4	Piping	2010	916,522	0.00%	916,522
354.4	Structure	2010	1,297,649	0.00%	1,297,649
354.4	Electrical Wiring	2010	613,510	0.00%	613,510
354.4	Electrical Equipment	2010	1,455,445	0.00%	1,455,445
354.4	HVAC Equipment	2010	214,946	0.00%	214,946
354.4	HVAC Piping/Duct	2010	230,104	0.00%	230,104
354.4	Electrical Equipment	2011	29,434	0.00%	29,434
354.4	Piping	2012	219,038	0.00%	219,038
354.4	Structure	2012	14,096	0.00%	14,096
354.4	Electrical Wiring	2012	2,391	0.00%	2,391
380	Process Equipment	2012	18,944	0.00%	18,944
380	(2)Blending units & (3) Centrifuge	2018	24,114	0.00%	24,114
380	Centrifuge Rehabilitation	2014	63,999	0.00%	63,999
354.4	Heat Trace Installation	2014	16,353	0.00%	16,353
380	Sensidyne Gas Detection System	2014	17,378	0.00%	17,378
354.4	Gas Detection/Alarm	2014	9,937	0.00%	9,937
380	Capacitor	2014	8,059	0.00%	8,059
354.4	Glass Lined Valves	2014	47,508	0.00%	47,508
380	Vanton Pump	2015	17,928	0.00%	17,928
380	Vaughn Pump HE	2015	19,243	0.00%	19,243
380	Vaughn Vertical WW Pump	2015	15,309	0.00%	15,309
380	VFD's	2015	13,379	0.00%	13,379
380	Backwash Strainer	2015	22,879	0.00%	22,879
380	Sulfuric Acid Tank	2015	35,881	0.00%	35,881
380	Fairbanks Morse Pumps	2015	41,267	0.00%	41,267
354.4	Gear Unit Repair	2016	74,101	0.00%	74,101
354.4	Heat Trace Panel	2016	25,182	0.00%	25,182

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			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * (1.00-Col (40))
Account	Description	Year	Prelim CORLD	EO%	FMV
394	Wilo Sub Pump	2016	5,812	0.00%	5,812
394	(3)Wilo Pumps	2016	19,479	0.00%	19,479
394	(2) Wilo Pumps	2016	20,154	0.00%	20,154
354.4	GBT Sample Pump	2016	12,822	0.00%	12,822
354.4	Strainer	2016	13,711	0.00%	13,711
354.4	Sump Pump	2016	31,167	0.00%	31,167
354.4	Dodge Reducer	2016	23,099	0.00%	23,099
354.4	Polymer Feed Pump	2016	15,627	0.00%	15,627
			19,949,132		**19,949,132**
354.4	Structure	1954	698,890	0.00%	698,890
354.4	Structure	1963	280,853	0.00%	280,853
354.4	Structure	1981	48,761	0.00%	48,761
354.4	Structure	1991	1,091,674	0.00%	1,091,674
380	Process Equipment	1991	600,593	0.00%	600,593
380	Process Equipment	1981	27,892	0.00%	27,892
354.4	Piping	1991	57,831	0.00%	57,831
354.4	Electrical Wiring	1991	559,737	0.00%	559,737
354.4	Electrical Wiring	1981	674	0.00%	674
354.4	Structure	1989	98,991	0.00%	98,991
380	Process Equipment	1989	356,630	0.00%	356,630
354.4	Piping	1989	115,650	0.00%	115,650
354.4	Electrical Equipment	1989	47,311	0.00%	47,311
354.4	Electrical Equipment	1991	4,302,835	0.00%	4,302,835
354.4	UPS-Cogeneration	2002	15,409	0.00%	15,409
354.4	Electrical Equipment	1981	422	0.00%	422
354.4	VAX Upgrade	1995	38,139	0.00%	38,139
354.4	Electrical Equipment	1997	13,886	0.00%	13,886
380	Computer System	1999	1,077,418	0.00%	1,077,418
354.4	HVAC Upgrade	1999	178,049	0.00%	178,049
354.4	SCADAlarm System	2002	64,201	0.00%	64,201
354.4	Electrical Wiring	2003	26,794	0.00%	26,794
354.4	Electrical Equipment	2003	164,656	0.00%	164,656
354.4	Electrical Equipment	2007	25,692	0.00%	25,692
354.4	Structure	2008	220,028	0.00%	220,028
354.4	Stucture	2010	379,855	0.00%	379,855
354.4	Electrical Wiring	2010	176,942	0.00%	176,942
354.4	Electrical Equipment	2010	117,352	0.00%	117,352
380	Process Equipment	2010	32,634	0.00%	32,634
380	Process Piping	2010	45,716	0.00%	45,716
354.4	Piping	2011	40,486	0.00%	40,486
354.4	Electrical Wiring	2011	195,436	0.00%	195,436

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Equipment	2011	22,403	0.00%	22,403
354.4	Struct. (Breakroom Renovation)	2014	52,742	0.00%	52,742
354.4	Struct. (Bathroom Renovation)	2014	18,249	0.00%	18,249
			11,194,831		**11,194,831**
354.4	Structure	1990	155,380	0.00%	155,380
354.4	Structure	1981	509,967	0.00%	509,967
380	Process Equipment	1990	79,197	0.00%	79,197
380	Process Equipment	1981	176,346	0.00%	176,346
354.4	Piping	1990	9,405	0.00%	9,405
354.4	Piping	1981	27,867	0.00%	27,867
354.4	Electrical Wiring	1990	12,506	0.00%	12,506
354.4	Electrical Wiring	1981	17,827	0.00%	17,827
354.4	Electrical Equipment	1990	2,110	0.00%	2,110
354.4	Electrical Equipment	1981	7,411	0.00%	7,411
380	Process Equipment	2010	179,112	0.00%	179,112
380	Grav. Belt Thick. Sludge Pumps	2019	30,519	0.00%	30,519
			1,207,647		**1,207,647**
354.4	Structure	1991	473,720	0.00%	473,720
354.4	Structure	1981	116,863	0.00%	116,863
354.4	Structure	1968	279,297	0.00%	279,297
354.4	Structure	2008	269,313	0.00%	269,313
380	Process Equipment	2011	217,979	0.00%	217,979
354.4	Piping	2011	296,586	0.00%	296,586
354.4	Structure	2011	504,393	0.00%	504,393
354.4	Electrical Wiring	2011	374,309	0.00%	374,309
354.4	Electrical Equipment	2011	4,209,023	0.00%	4,209,023
354.4	Biogas Piping Improvement	2017	143,385	0.00%	143,385
			6,884,868		**6,884,868**
354.4	Structure	1968	29,069	0.00%	29,069
371.2	Process Equipment	1968	46,111	0.00%	46,111
371.2	Pressurization Water Pump	2002	12,646	0.00%	12,646
371.2	Pressurization Water Pump	2003	12,953	0.00%	12,953
354.4	Piping	1968	6,968	0.00%	6,968
			107,747		**107,747**
354.4	Structure	1954	50,233	0.00%	50,233
354.4	Structure	1981	7,095	0.00%	7,095
354.4	Structure	1991	487,254	0.00%	487,254
354.4	Electrical Wiring	1991	36,989	0.00%	36,989

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Equipment	1991	26,876	0.00%	26,876
354.4	Structure	2011	84,120	0.00%	84,120
380	Process Equipment	2012	215,824	0.00%	215,824
354.4	Piping	2012	16,659	0.00%	16,659
354.4	Structure	2012	83,938	0.00%	83,938
354.4	Electrical Wiring	2012	38,662	0.00%	38,662
			1,047,650		**1,047,650**
354.4	Structure	1954	978,447	0.00%	978,447
354.4	Structure	1990	361,497	0.00%	361,497
354.4	Structure	1981	14,885	0.00%	14,885
380	Process Equipment	1990	1,042,756	0.00%	1,042,756
354.4	Electrical Wiring	1981	13,528	0.00%	13,528
354.4	Electrical Equipment	1981	28,984	0.00%	28,984
354.4	Electrical Equipment	1990	72,768	0.00%	72,768
354.4	Piping	1995	47,571	0.00%	47,571
364	Sludge Flow Meter	2001	7,949	0.00%	7,949
354.4	Structure	2003	10,570	0.00%	10,570
380	Process Equipment	2003	313,514	0.00%	313,514
354.4	Piping	2003	278,029	0.00%	278,029
354.4	Electrical Wiring	2003	77,449	0.00%	77,449
354.4	Electrical Equipment	2003	55,517	0.00%	55,517
354.4	Structure	2008	999,397	0.00%	999,397
380	Sludge Transfer Pump	2009	63,081	0.00%	63,081
380	Digester Recycle pump	2009	63,081	0.00%	63,081
380	Digester 3 Transfer Pump Piping	2009	75,721	0.00%	75,721
380	Digester 3 Sludge Recycle Piping	2009	41,827	0.00%	41,827
380	Digester 3 Rehab	2009	302,885	0.00%	302,885
380	Digester Mixing System	2009	115,962	0.00%	115,962
380	Process Equipment	2010	252,123	0.00%	252,123
354.4	Piping	2010	797,674	0.00%	797,674
354.4	Structure	2010	684,294	0.00%	684,294
354.4	Electrical Wiring	2010	227,042	0.00%	227,042
354.4	Electrical Equipment	2010	32,372	0.00%	32,372
354.4	HVAC Piping/ductwork	2010	95,739	0.00%	95,739
380	Dig. 2 Vaughan Pump Rehab	2013	21,574	0.00%	21,574
354.4	Valve	2015	30,085	0.00%	30,085
364	Five Digester Biogas Flow Meters	2015	33,628	0.00%	33,628
380	Digester and Sludge Valves	2014	105,738	0.00%	105,738
			7,245,687		**7,245,687**
354.4	Structure	1981	142,021	0.00%	142,021

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
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Input	Input	Input	Calculation	Input	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
380	Process Equipment	1981	104,964	0.00%	104,964
354.4	Piping	1981	4,190	0.00%	4,190
			251,175		**251,175**
354.4	Structure	1981	105,303	0.00%	105,303
380	Process Equipment	1981	16,759	0.00%	16,759
354.4	Piping	1981	29,405	0.00%	29,405
354.4	Electrical Wiring	1981	2,697	0.00%	2,697
354.4	Electrical Equipmnet	1981	13,780	0.00%	13,780
			167,944		**167,944**
354.4	Structure	1981	102,923	0.00%	102,923
380	Process Equipment	1981	485,207	0.00%	485,207
354.4	Piping	1981	1,197	0.00%	1,197
			589,327		**589,327**
354.4	5000 Amp Bus	2016	61,259	0.00%	61,259
354.4	5000 Amp Bus	2016	58,493	0.00%	58,493
			119,752		**119,752**
354.4	Electrical Wireing	2020	451,489	0.00%	451,489
354.4	Electrical Equipment	2020	1,064,150	0.00%	1,064,150
			1,515,639		**1,515,639**
354.4	Electrical Wiring	1989	24,541	0.00%	24,541
354.4	Electrical Equipment	1989	348,087	0.00%	348,087
354.4	Electrical Equipment	1996	4,226	0.00%	4,226
			376,854		**376,854**
354.4	Structure	1991	63,702	0.00%	63,702
354.4	Structure	1981	38,164	0.00%	38,164
380	Process Equipment	1991	65,436	0.00%	65,436
380	Process Equipment	1981	4,343	0.00%	4,343
354.4	Piping	1991	11,332	0.00%	11,332
354.4	Piping	1981	8,026	0.00%	8,026
354.4	Electrical Wiring	1991	5,270	0.00%	5,270
354.4	Electrical Wiring	1981	669	0.00%	669
354.4	Electrical Equipment	1991	3,342	0.00%	3,342
354.4	Electrical Equipment	1981	25,154	0.00%	25,154
380	Process Equipment	2010	42,697	0.00%	42,697
354.4	Piping	2010	1,586	0.00%	1,586
354.4	Structure	2010	7,693	0.00%	7,693

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Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Wiring	2010	2,895	0.00%	2,895
			280,309		**280,309**
354.4	Structure	1988	72,332	0.00%	72,332
380	Process Equipment	2019	55,952	0.00%	55,952
354.4	Piping	1988	16,929	0.00%	16,929
354.4	Electrical Wiring	1988	6,859	0.00%	6,859
354.4	Electrical Equipment	1988	1,539	0.00%	1,539
380	Scum Pump	2014	13,387	0.00%	13,387
			166,998		**166,998**
354.4	Structure	1988	20,007	0.00%	20,007
380	Process Equipment	1988	23,926	0.00%	23,926
354.4	Piping	1988	10,773	0.00%	10,773
354.4	Electric Wiring	1988	3,953	0.00%	3,953
354.4	Electrict Equipment	1988	1,539	0.00%	1,539
			60,198		**60,198**
354.4	Structure	1988	15,390	0.00%	15,390
380	Process Equipment	1988	6,380	0.00%	6,380
380	Gorman Rupp Pump	2002	6,129	0.00%	6,129
354.4	Electrical Wiring	1988	3,433	0.00%	3,433
354.4	Electrical Equipment	1988	1,539	0.00%	1,539
			32,871		**32,871**
354.4	Structure	1981	122,205	0.00%	122,205
380	Process Equipment	1981	11,973	0.00%	11,973
354.4	Piping	1981	20,361	0.00%	20,361
354.4	Electrical Equipment	1981	2,697	0.00%	2,697
			157,236		**157,236**
354.4	Structure	1990	372,570	0.00%	372,570
380	Process Equipment	2019	709,734	0.00%	709,734
354.4	Electrical Wiring	1990	9,631	0.00%	9,631
354.4	Electrical Equipment	1990	3,769	0.00%	3,769
380	Process Equipment	2010	201,659	0.00%	201,659
354.4	Electrical Wiring	2010	1,785	0.00%	1,785
			1,299,148		**1,299,148**
354.4	Structure	1990	7,169	0.00%	7,169
354.4	Piping	1990	299	0.00%	299

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Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Wiring	1990	2,933	0.00%	2,933
354.4	Structure	2003	104,536	0.00%	104,536
			114,937		**114,937**
354.4	Structure	1954	2,619	0.00%	2,619
354.4	Structure	1991	15,691	0.00%	15,691
354.4	Electrical Wiring	1991	2,754	0.00%	2,754
			21,064		**21,064**
354.4	Structure	1981	11,136	0.00%	11,136
354.4	Piping	1981	6,375	0.00%	6,375
			17,511		**17,511**
354.4	Structure	1981	11,136	0.00%	11,136
354.4	Piping	1981	6,375	0.00%	6,375
			17,511		**17,511**
354.4	Structure	1981	29,155	0.00%	29,155
380	Process Equipment	1981	9,811	0.00%	9,811
354.4	Piping	1981	43,029	0.00%	43,029
			81,995		**81,995**
354.4	Structure	1990	176	0.00%	176
384	Flow Meter	1980	3,561	0.00%	3,561
354.4	Electrical Wiring	1990	975	0.00%	975
			4,712		**4,712**
354.4	Structure	1981	23,635	0.00%	23,635
354.4	Piping	1981	21,326	0.00%	21,326
354.4	Electrical Wiring	1981	741	0.00%	741
354.4	Electrical Equipment	1981	5,235	0.00%	5,235
380	Process Equipment	2004	83,449	0.00%	83,449
			134,386		**134,386**
354.4	Structure	1989	497,104	0.00%	497,104
394	Process Equipment	1989	51,763	0.00%	51,763
354.4	Piping	1989	56,726	0.00%	56,726
354.4	Electrical Wiring	1989	28,879	0.00%	28,879
354.4	Electrical Equipment	1989	9,459	0.00%	9,459
394	Lab Dishwasher	1999	1,812	0.00%	1,812
394	Operator's WEStation	2000	8,322	0.00%	8,322
394	Fume Hood	2004	1,710	0.00%	1,710

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Input	Input	Input	Calculation	Input	Calculation
Eng Assmt	Eng Assmt	Eng Assmt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Structure (Flooring)	2007	11,996	0.00%	11,996
394	Spectrophoto (AA)	2007	33,960	0.00%	33,960
394	Spectrophoto (PO4)	2007	8,266	0.00%	8,266
394	Process Equipment	2008	14,359	0.00%	14,359
394	Laboratory Equipment	2009	10,045	0.00%	10,045
394	Process Equipment	2009	5,932	0.00%	5,932
354.4	Piping	2009	1,524	0.00%	1,524
354.4	Structure	2009	620,743	0.00%	620,743
354.4	Electrical Wiring	2009	50,916	0.00%	50,916
354.4	Electrical Equipment	2009	16,919	0.00%	16,919
354.4	HVAC Equipment	2009	311,378	0.00%	311,378
354.4	HVAC Piping/Ductwork	2009	146,095	0.00%	146,095
354.4	UV Communication Boards (3)	2014	28,538	0.00%	28,538
390	Servers for GE Plant Operation S)	2014	10,105	0.00%	10,105
390	PI Server and System Upgrades	2014	14,808	0.00%	14,808
390	PI Server and System Upgrades	2014	7,006	0.00%	7,006
394	Kjeltec 8200 Distillation Unit	2014	9,854	0.00%	9,854
394	Lab Duct Coil	2014	15,274	0.00%	15,274
394	Supply and Return Line	2014	11,289	0.00%	11,289
394	Wilo pumps (2)	2014	9,083	0.00%	9,083
394	Wash Water Pump	2014	5,181	0.00%	5,181
394	Wilo Pump (1)	2014	11,264	0.00%	11,264
394	EAM Software	2015	14,857	0.00%	14,857
394	6 System Workstation	2015	14,359	0.00%	14,359
394	Fume Hood	2018	15,924	0.00%	15,924
354.4	Computer	2016	10,270	0.00%	10,270
354.4	Computer	2016	10,156	0.00%	10,156
394	Lab Glassware	2016	14,396	0.00%	14,396
			2,090,272		**2,090,272**
354.4	Structure	1989	19,851	0.00%	19,851
364	Process Equipment	1989	2,725	0.00%	2,725
364	Flow Meter	2002	4,561	0.00%	4,561
			27,137		**27,137**
354.4	Structure	1981	484,898	0.00%	484,898
354.4	Structure	1991	4,992,149	0.00%	4,992,149
380	Process Equipment	1981	1,136,064	0.00%	1,136,064
380	Process Equipment	1991	5,450	0.00%	5,450
354.4	Piping	1991	5,835,857	0.00%	5,835,857
354.4	Electrical Wiring	1981	448,140	0.00%	448,140
354.4	Electrical Wiring	1991	3,412,499	0.00%	3,412,499

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Eng Assmt	Eng Assmt	Eng Assmt	Col (31)	AUS Economic Obsolescence Analysis	(39) * (1.00-Col (40))
Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Electrical Wiring	2002	46,813	0.00%	46,813
354.4	Electrical Equipment	1981	75,707	0.00%	75,707
354.4	Piping	1989	162,732	0.00%	162,732
354.4	Paving	1989	6,137	0.00%	6,137
354.4	Electrical Equipment	1991	363,914	0.00%	363,914
354.4	Train 3 Forcemain	2001	475,164	0.00%	475,164
354.4	Level Sensors	2001	12,507	0.00%	12,507
354.4	Structure	2003	75,749	0.00%	75,749
354.4	Piping	2003	50,856	0.00%	50,856
354.4	Paving	2003	12,359	0.00%	12,359
380	Equipment	2003	8,333	0.00%	8,333
354.4	Paving	2005	51,385	0.00%	51,385
354.4	Structure	2005	12,345	0.00%	12,345
354.4	Electric Equip	2005	5,343	0.00%	5,343
354.4	Hot Water Piping	2006	70,877	0.00%	70,877
380	Process Equipment	2008	56,788	0.00%	56,788
354.4	Piping	2008	19,685	0.00%	19,685
354.4	Paving	2008	13,123	0.00%	13,123
394	Isco Samplers	2009	6,539	0.00%	6,539
354.4	Piping	2010	166,189	0.00%	166,189
354.4	Paving	2010	136,150	0.00%	136,150
354.4	Electrical Wiring	2010	171,754	0.00%	171,754
354.4	Electrical Equipment	2010	31,637	0.00%	31,637
354.4	Fencing	2010	57,571	0.00%	57,571
354.4	Structure	2011	197,248	0.00%	197,248
354.4	Piping	2011	371,362	0.00%	371,362
354.4	Paving	2011	101,828	0.00%	101,828
354.4	Electrical Wiring	2011	698,353	0.00%	698,353
354.4	Electrical Equipment	2011	1,768,336	0.00%	1,768,336
380	Process Piping	2012	50,785	0.00%	50,785
354.4	Paving	2012	11,597	0.00%	11,597
354.4	Electrical Wiring	2012	1,724	0.00%	1,724
354.4	HD Network Communcation Gate	2015	7,302	0.00%	7,302
380	Trash Pump	2015	11,962	0.00%	11,962
354.4	Utility Water Heater	2015	18,312	0.00%	18,312
			21,643,523		**21,643,523**
354.4	Structure	1991	361,412	0.00%	361,412
354.4	Electrical Wiring	1991	33,802	0.00%	33,802
380	Process Equip	2005	109,573	0.00%	109,573
354.4	Electric Equip	2005	9,542	0.00%	9,542
354.4	Electric Wiring	2005	6,192	0.00%	6,192

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Account	Description	Year	Prelim CORLD	EO%	FMV
354.4	Piping	2005	1,544	0.00%	1,544
354.4	Electrical Wiring	2010	4,800	0.00%	4,800
354.4	Electrical Equipment	2010	324	0.00%	324
354.4	HVAC Equipment	2010	64,909	0.00%	64,909
354.4	HVAC Piping/Ductwork	2010	65,043	0.00%	65,043
			657,141		**657,141**
354.4	Structure	1981	38,717	0.00%	38,717
354.4	Process Equipment	1981	15,228	0.00%	15,228
354.4	Piping	1981	7,197	0.00%	7,197
			61,142		**61,142**
391	Pickup 602	2005	3,389	0.00%	3,389
391	Dump Truck 624	1986	6,783	0.00%	6,783
391	Stake Body Truck 639	2011	21,331	0.00%	21,331
391	Vactor Truck 640	1990	31,153	0.00%	31,153
391	Knuckle Boom Truck 645	1991	22,451	0.00%	22,451
391	Ford 3500 647	2000	6,000	0.00%	6,000
391	Trailer 206	1987	480	0.00%	480
391	Ford E-350 212	2002	5,517	0.00%	5,517
			97,104		**97,104**
			148,897,626		**148,897,626**
363	Sanitary Sewer Service Connectio	2019	81,851	0.00%	81,851
363	Sanitary Sewer Service Connectio	2015	126,929	0.00%	126,929
363	Sanitary Sewer Service Connectio	2011	26,144	0.00%	26,144
363	Sanitary Sewer Service Connectio	2009	64,301	0.00%	64,301
363	Sanitary Sewer Service Connectio	2008	13,750	0.00%	13,750
363	Sanitary Sewer Service Connectio	2004	12,000	0.00%	12,000
363	Sanitary Sewer Service Connectio	2003	212,446	0.00%	212,446
363	Sanitary Sewer Service Connectio	2002	35,564	0.00%	35,564
363	Sanitary Sewer Service Connectio	2001	37,542	0.00%	37,542
363	Sanitary Sewer Service Connectio	1999	39,217	0.00%	39,217
363	Sanitary Sewer Service Connectio	1998	24,500	0.00%	24,500
363	Sanitary Sewer Service Connectio	1996	10,443	0.00%	10,443
363	Sanitary Sewer Service Connectio	1993	34,223	0.00%	34,223
363	Sanitary Sewer Service Connectio	1992	46,916	0.00%	46,916
363	Sanitary Sewer Service Connectio	1989	2,361	0.00%	2,361
363	Sanitary Sewer Service Connectio	1988	5,847	0.00%	5,847
363	Sanitary Sewer Service Connectio	1987	4,663	0.00%	4,663
363	Sanitary Sewer Service Connectio	1983	14,078	0.00%	14,078

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(36)	(37)	(38)	(39)	(40)	(41)

Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
363	Sanitary Sewer Service Connectio	1983	134,762	0.00%	134,762
363	Sanitary Sewer Service Connectio	1980	194,334	0.00%	194,334
363	Sanitary Sewer Service Connectio	1979	3,182	0.00%	3,182
363	Sanitary Sewer Service Connectio	1971	9,908	0.00%	9,908
363	Sanitary Sewer Service Connectio	1965	4,871	0.00%	4,871
363	Sanitary Sewer Service Connectio	1963	7,832	0.00%	7,832
363	Sanitary Sewer Service Connectio	1962	14,511	0.00%	14,511
363	Sanitary Sewer Service Connectio	1961	11,090	0.00%	11,090
363	Sanitary Sewer Service Connectio	1958	16,313	0.00%	16,313
363	Sanitary Sewer Service Connectio	1957	20,125	0.00%	20,125
363	Sanitary Sewer Service Connectio	1956	22,802	0.00%	22,802
363	Sanitary Sewer Service Connectio	1955	40,898	0.00%	40,898
363	Sanitary Sewer Service Connectio	1954	113,120	0.00%	113,120
363	Sanitary Sewer Service Connectio	1953	537,866	0.00%	537,866
363	Sanitary Sewer Service Connectio	1952	4,006	0.00%	4,006
363	Sanitary Sewer Service Connectio	1951	7,718	0.00%	7,718
363	Sanitary Sewer Service Connectio	1950	14,133	0.00%	14,133
363	Sanitary Sewer Service Connectio	1949	3,855	0.00%	3,855
363	Sanitary Sewer Service Connectio	1948	3,577	0.00%	3,577
363	Sanitary Sewer Service Connectio	1947	42,334	0.00%	42,334
363	Sanitary Sewer Service Connectio	1946	52,988	0.00%	52,988
363	Sanitary Sewer Service Connectio	1945	12,740	0.00%	12,740
363	Sanitary Sewer Service Connectio	1944	15,780	0.00%	15,780
363	Sanitary Sewer Service Connectio	1943	3,576,581	0.00%	3,576,581
363	Sanitary Sewer Service Connectio	1942	48,938	0.00%	48,938
363	Sanitary Sewer Service Connectio	1941	4,171	0.00%	4,171
363	Sanitary Sewer Service Connectio	1940	20,957	0.00%	20,957
363	Sanitary Sewer Service Connectio	1939	53,546	0.00%	53,546
363	Sanitary Sewer Service Connectio	1938	77,662	0.00%	77,662
363	Sanitary Sewer Service Connectio	1937	73,263	0.00%	73,263
363	Sanitary Sewer Service Connectio	1936	152,540	0.00%	152,540
363	Sanitary Sewer Service Connectio	1935	47,891	0.00%	47,891
363	Sanitary Sewer Service Connectio	1934	12,803	0.00%	12,803
363	Sanitary Sewer Service Connectio	1933	3,373	0.00%	3,373
363	Sanitary Sewer Service Connectio	1932	48,611	0.00%	48,611
363	Sanitary Sewer Service Connectio	1931	109,094	0.00%	109,094
363	Sanitary Sewer Service Connectio	1930	182,125	0.00%	182,125
363	Sanitary Sewer Service Connectio	1928	32,046	0.00%	32,046
363	Sanitary Sewer Service Connectio	1927	83,763	0.00%	83,763
363	Sanitary Sewer Service Connectio	1926	282,437	0.00%	282,437
363	Sanitary Sewer Service Connectio	1925	416,214	0.00%	416,214
363	Sanitary Sewer Service Connectio	1924	10,827	0.00%	10,827

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
363	Sanitary Sewer Service Connectio	1922	2,110	0.00%	2,110
363	Sanitary Sewer Service Connectio	1921	753	0.00%	753
363	Sanitary Sewer Service Connectio	1919	5,674	0.00%	5,674
363	Sanitary Sewer Service Connectio	1917	30,234	0.00%	30,234
363	Sanitary Sewer Service Connectio	1916	8,931	0.00%	8,931
363	Sanitary Sewer Service Connectio	1904	23,129	0.00%	23,129
			7,389,193		**7,389,193**
361.7	Manholes - Manchester Intercepto	2019	72,580	0.00%	72,580
361.7	Manholes - Fireside Sewer Replac	2018	61,823	0.00%	61,823
361.7	Manholes - 2015 Sewer Improvem	2015	29,634	0.00%	29,634
361.7	Manholes - Poorhouse Run Interc	2011	512,531	0.00%	512,531
361.7	Manholes - Arch Street Interceptor	2011	39,420	0.00%	39,420
361.7	Manholes - Willis Run Siphon Cha	2011	672,245	0.00%	672,245
361.7	Manholes - Northwest Triangle	2009	60,682	0.00%	60,682
361.7	Manholes	2008	62,023	0.00%	62,023
361.7	Manholes	2004	45,616	0.00%	45,616
361.7	Manholes	2003	335,897	0.00%	335,897
361.7	Manholes	2002	191,216	0.00%	191,216
361.7	Manholes - Roosevelt Ave Willis R	2001	54,342	0.00%	54,342
361.7	Manholes	1999	106,760	0.00%	106,760
361.7	Manholes	1998	170,036	0.00%	170,036
361.7	Manholes	1996	125,675	0.00%	125,675
361.7	Manholes - Upper Codorus	1993	12,089	0.00%	12,089
361.7	Manholes	1993	96,714	0.00%	96,714
361.7	Manholes - Upper Codorus	1992	243,903	0.00%	243,903
361.7	Manholes - Upper Codorus	1992	58,072	0.00%	58,072
361.7	Manholes	1989	21,940	0.00%	21,940
361.7	Manholes	1988	51,447	0.00%	51,447
361.7	Manholes	1987	19,947	0.00%	19,947
361.7	Manholes - Tyler Run	1983	291,965	0.00%	291,965
361.7	Manholes - Codorus Creek	1983	536,838	0.00%	536,838
361.7	Manholes	1980	1,100,304	0.00%	1,100,304
361.7	Manholes	1979	35,248	0.00%	35,248
361.7	Manholes	1971	14,065	0.00%	14,065
361.7	Manholes	1965	21,374	0.00%	21,374
361.7	Manholes	1963	47,903	0.00%	47,903
361.7	Manholes	1962	49,803	0.00%	49,803
361.7	Manholes	1961	82,387	0.00%	82,387
361.7	Manholes	1958	56,743	0.00%	56,743
361.7	Manholes	1957	36,656	0.00%	36,656
361.7	Manholes	1956	72,442	0.00%	72,442

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
361.7	Manholes	1955	121,781	0.00%	121,781
361.7	Manholes	1954	307,521	0.00%	307,521
361.7	Manholes	1953	640,097	0.00%	640,097
361.7	Manholes	1952	13,103	0.00%	13,103
361.7	Manholes	1951	25,275	0.00%	25,275
361.7	Manholes	1950	48,040	0.00%	48,040
361.7	Manholes	1949	8,489	0.00%	8,489
361.7	Manholes	1946	10,962	0.00%	10,962
361.7	Manholes	1947	55,764	0.00%	55,764
361.7	Manholes	1946	65,074	0.00%	65,074
361.7	Manholes	1945	11,483	0.00%	11,483
361.7	Manholes	1944	13,265	0.00%	13,265
361.7	Manholes	1943	2,233,192	0.00%	2,233,192
361.7	Manholes	1942	66,165	0.00%	66,165
361.7	Manholes	1941	5,713	0.00%	5,713
361.7	Manholes	1940	32,171	0.00%	32,171
361.7	Manholes	1939	54,780	0.00%	54,780
361.7	Manholes	1938	69,692	0.00%	69,692
361.7	Manholes	1937	67,775	0.00%	67,775
361.7	Manholes	1936	94,503	0.00%	94,503
361.7	Manholes	1935	24,898	0.00%	24,898
361.7	Manholes	1934	9,506	0.00%	9,506
361.7	Manholes	1933	3,712	0.00%	3,712
361.7	Manholes	1932	12,864	0.00%	12,864
361.7	Manholes	1931	69,232	0.00%	69,232
361.7	Manholes	1930	104,860	0.00%	104,860
361.7	Manholes	1928	20,218	0.00%	20,218
361.7	Manholes	1927	29,263	0.00%	29,263
361.7	Manholes	1926	136,790	0.00%	136,790
361.7	Manholes	1925	133,657	0.00%	133,657
361.7	Manholes	1924	2,800	0.00%	2,800
361.7	Manholes	1921	3,880	0.00%	3,880
361.7	Manholes	1917	11,747	0.00%	11,747
361.7	Manholes	1916	1,957	0.00%	1,957
361.7	Manholes	1912	1,610	0.00%	1,610
			9,902,159		**9,902,159**
361	Sanitary Sewers - Fireside Sewer I	2019	369,848	0.00%	369,848
361	Sanitary Sewers - Fireside Sewer I	2019	145,117	0.00%	145,117
361	Sanitary Sewers - Manchester Inte	2019	3,305,555	0.00%	3,305,555
361	Sanitary Sewer - 2015 Sewer Impr	2015	297,105	0.00%	297,105
361	Sanitary Sewers - Poorhouse Run	2011	303,760	0.00%	303,760

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (21)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
361	Sanitary Sewers - Arch Street Inte	2011	413,591	0.00%	413,591
361	Sanitary Sewers - Poorhouse Run	2011	1,310,507	0.00%	1,310,507
361	Sanitary Sewers - Poorhouse Run	2011	108,485	0.00%	108,485
361	Sanitary Sewers - Poorhouse Run	2011	190,935	0.00%	190,935
361	Sanitary Sewer - North West Trian	2009	295,137	0.00%	295,137
361	Sanitary Sewer - North West Trian	2009	475,314	0.00%	475,314
361	Sanitary Sewer - North West Trian	2009	156,964	0.00%	156,964
361	Sanitary Sewers	2004	26,365	0.00%	26,365
361	Sanitary Sewers	2003	8,703	0.00%	8,703
361	Sanitary Sewers - Arch Street Inte	2003	82,801	0.00%	82,801
361	Sanitary Sewers - Arch Street Inte	2003	310,978	0.00%	310,978
361	Sanitary Sewers - Arch Street Inte	2003	443,265	0.00%	443,265
361	Sanitary Sewers - Arch Street Inte	2003	450,015	0.00%	450,015
361	Sanitary Sewers	2002	26,833	0.00%	26,833
361	Sanitary Sewers	2002	82,147	0.00%	82,147
361	Sanitary Sewers	2002	150,044	0.00%	150,044
361	Sanitary Sewers - Richland Ave P	2002	32,172	0.00%	32,172
361	Sanitary Sewers - Roosevelt Ave \	2001	138,988	0.00%	138,988
361	Sanitary Sewers - Roosevelt Ave \	2001	256,133	0.00%	256,133
361	Sanitary Sewers - Roosevelt Ave \	2001	376,418	0.00%	376,418
361	Sanitary Sewers	1999	37,449	0.00%	37,449
361	Sanitary Sewers	1999	30,277	0.00%	30,277
361	Sanitary Sewers	1998	1,536	0.00%	1,536
361	Sanitary Sewers	1998	2,538	0.00%	2,538
361	Sanitary Sewers	1998	175,413	0.00%	175,413
361	Sanitary Sewers	1996	143,585	0.00%	143,585
361	Sanitary Sewers	1993	31,789	0.00%	31,789
361	Sanitary Sewers	1993	3,107	0.00%	3,107
361	Sanitary Sewers - Upper Codorus	1993	220,607	0.00%	220,607
361	Sanitary Sewers	1993	70,532	0.00%	70,532
361	Sanitary Sewers	1993	69,509	0.00%	69,509
361	Sanitary Sewers	1992	369	0.00%	369
361	Sanitary Sewers - Upper Codorus	1992	1,264,935	0.00%	1,264,935
361	Sanitary Sewers - Upper Codorus	1992	3,015,249	0.00%	3,015,249
361	Sanitary Sewers	1989	15,558	0.00%	15,558
361	Sanitary Sewers	1988	12,599	0.00%	12,599
361	Sanitary Sewers	1988	16,263	0.00%	16,263
361	Sanitary Sewers	1988	21,617	0.00%	21,617
361	Sanitary Sewers	1988	164,537	0.00%	164,537
361	Sanitary Sewers	1987	580	0.00%	580
361	Sanitary Sewers	1983	94,941	0.00%	94,941
361	Sanitary Sewers	1983	108,837	0.00%	108,837

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Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Line Account	Line Account	Line Account	[illegible]	[illegible]	[illegible]
Account	Description	Year	Prelim CORLD	EO%	FMV
361	Sanitary Sewers	1983	12,068	0.00%	12,068
361	Sanitary Sewers	1983	1,878	0.00%	1,878
361	Sanitary Sewers - Tyler Run	1983	835,609	0.00%	835,609
361	Sanitary Sewers - Tyler Run	1983	2,054,156	0.00%	2,054,156
361	Sanitary Sewers	1983	8,255	0.00%	8,255
361	Sanitary Sewers - Codorus Creek	1983	9,621,302	0.00%	9,621,302
361	Sanitary Sewers - Codorus Creek	1983	3,177,590	0.00%	3,177,590
361	Sanitary Sewers - Codorus Creek	1983	8,755,236	0.00%	8,755,236
361	Sanitary Sewers	1980	55,094	0.00%	55,094
361	Sanitary Sewers	1980	304,829	0.00%	304,829
361	Sanitary Sewers	1980	29,277	0.00%	29,277
361	Sanitary Sewers	1980	320,259	0.00%	320,259
361	Sanitary Sewers	1980	1,114,732	0.00%	1,114,732
361	Sanitary Sewers	1980	874,171	0.00%	874,171
361	Sanitary Sewers	1979	25,851	0.00%	25,851
361	Sanitary Sewers	1979	8,383	0.00%	8,383
361	Sanitary Sewers	1979	20,470	0.00%	20,470
361	Sanitary Sewers	1971	7,295	0.00%	7,295
361	Sanitary Sewers	1965	12,681	0.00%	12,681
361	Sanitary Sewers	1963	5,799	0.00%	5,799
361	Sanitary Sewers	1963	8,731	0.00%	8,731
361	Sanitary Sewers	1963	16,289	0.00%	16,289
361	Sanitary Sewers	1962	33,135	0.00%	33,135
361	Sanitary Sewers	1961	35,841	0.00%	35,841
361	Sanitary Sewers	1958	42,583	0.00%	42,583
361	Sanitary Sewers	1957	26,447	0.00%	26,447
361	Sanitary Sewers	1956	37,403	0.00%	37,403
361	Sanitary Sewers	1955	60,177	0.00%	60,177
361	Sanitary Sewers	1954	180,636	0.00%	180,636
361	Sanitary Sewers	1954	34,045	0.00%	34,045
361	Sanitary Sewers	1953	335,477	0.00%	335,477
361	Sanitary Sewers	1953	47,722	0.00%	47,722
361	Sanitary Sewers	1953	17,549	0.00%	17,549
361	Sanitary Sewers	1953	3,924	0.00%	3,924
361	Sanitary Sewers	1953	25,185	0.00%	25,185
361	Sanitary Sewers	1952	3,175	0.00%	3,175
361	Sanitary Sewers	1951	9,579	0.00%	9,579
361	Sanitary Sewers	1950	10,526	0.00%	10,526
361	Sanitary Sewers	1950	27,477	0.00%	27,477
361	Sanitary Sewers	1950	27,776	0.00%	27,776
361	Sanitary Sewers	1949	2,978	0.00%	2,978
361	Sanitary Sewers	1948	4,969	0.00%	4,969

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Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * [1.00-Col (40)]
Account	Description	Year	Prelim CORLD	EO%	FMV
361	Sanitary Sewers	1947	23,799	0.00%	23,799
361	Sanitary Sewers	1946	33,328	0.00%	33,328
361	Sanitary Sewers	1945	6,048	0.00%	6,048
361	Sanitary Sewers	1944	4,007	0.00%	4,007
361	Sanitary Sewers	1943	2,716	0.00%	2,716
361	Sanitary Sewers	1943	8,400	0.00%	8,400
361	Sanitary Sewers	1943	1,306,051	0.00%	1,306,051
361	Sanitary Sewers	1943	165,666	0.00%	165,666
361	Sanitary Sewers	1943	112,380	0.00%	112,380
361	Sanitary Sewers	1943	131,641	0.00%	131,641
361	Sanitary Sewers	1943	128,638	0.00%	128,638
361	Sanitary Sewers	1943	22,471	0.00%	22,471
361	Sanitary Sewers	1943	14,548	0.00%	14,548
361	Sanitary Sewers	1943	84,612	0.00%	84,612
361	Sanitary Sewers	1943	116,732	0.00%	116,732
361	Sanitary Sewers	1943	139,008	0.00%	139,008
361	Sanitary Sewers	1942	33,336	0.00%	33,336
361	Sanitary Sewers	1941	8,279	0.00%	8,279
361	Sanitary Sewers	1940	18,851	0.00%	18,851
361	Sanitary Sewers	1939	1,832	0.00%	1,832
361	Sanitary Sewers	1939	29,651	0.00%	29,651
361	Sanitary Sewers	1938	52,012	0.00%	52,012
361	Sanitary Sewers	1937	56,638	0.00%	56,638
361	Sanitary Sewers	1936	53,042	0.00%	53,042
361	Sanitary Sewers	1936	8,358	0.00%	8,358
361	Sanitary Sewers	1936	17,683	0.00%	17,683
361	Sanitary Sewers	1936	16,075	0.00%	16,075
361	Sanitary Sewers	1935	25,843	0.00%	25,843
361	Sanitary Sewers	1935	4,507	0.00%	4,507
361	Sanitary Sewers	1935	1,006	0.00%	1,006
361	Sanitary Sewers	1934	4,000	0.00%	4,000
361	Sanitary Sewers	1933	14,570	0.00%	14,570
361	Sanitary Sewers	1932	878	0.00%	878
361	Sanitary Sewers	1932	8,152	0.00%	8,152
361	Sanitary Sewers	1932	10,642	0.00%	10,642
361	Sanitary Sewers	1932	4,913	0.00%	4,913
361	Sanitary Sewers	1931	53,569	0.00%	53,569
361	Sanitary Sewers	1931	1,866	0.00%	1,866
361	Sanitary Sewers	1930	76,557	0.00%	76,557
361	Sanitary Sewers	1930	16,783	0.00%	16,783
361	Sanitary Sewers	1930	559	0.00%	559
361	Sanitary Sewers	1930	9,184	0.00%	9,184

36	37	38	39	40	41

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Fair Market Value

(36)	(37)	(38)	(39)	(40)	(41)
Account	Description	Placement Year	Preliminary Cost Approach	Economic Obsolescence	Fair Market Value
			CORLD $s	% of Preliminary Cost Approach	Appraisal Date Value $s
Input	Input	Input	Calculation	Input	Calculation
Eng Assmnt	Eng Assmnt	Eng Assmnt	Col (31)	AUS Economic Obsolescence Analysis	(39) * (1-Col (40))
Account	Description	Year	Prelim CORLD	EO%	FMV
361	Sanitary Sewers	1928	17,336	0.00%	17,336
361	Sanitary Sewers	1927	22,166	0.00%	22,166
361	Sanitary Sewers	1926	97,671	0.00%	97,671
361	Sanitary Sewers	1926	12,611	0.00%	12,611
361	Sanitary Sewers	1926	5,688	0.00%	5,688
361	Sanitary Sewers	1925	123,404	0.00%	123,404
361	Sanitary Sewers	1925	4,669	0.00%	4,669
361	Sanitary Sewers	1925	3,410	0.00%	3,410
361	Sanitary Sewers	1925	10,201	0.00%	10,201
361	Sanitary Sewers	1924	2,004	0.00%	2,004
361	Sanitary Sewers	1922	5,835	0.00%	5,835
361	Sanitary Sewers	1921	709	0.00%	709
361	Sanitary Sewers	1919	4,842	0.00%	4,842
361	Sanitary Sewers	1917	7,914	0.00%	7,914
361	Sanitary Sewers	1917	103	0.00%	103
361	Sanitary Sewers	1917	7,268	0.00%	7,268
361	Sanitary Sewers	1917	3,360	0.00%	3,360
361	Sanitary Sewers	1916	2,318	0.00%	2,318
361	Sanitary Sewers	1912	3,961	0.00%	3,961
			46,659,867		**46,659,867**
354.3	7.5 HP Smith & Loveles Package I	1980	89,822	0.00%	89,822
354.3	Wet Well Structure	1980	11,549	0.00%	11,549
354.3	Valve Vault	1980	2,033	0.00%	2,033
354.3	Plug Valves	1980	2,125	0.00%	2,125
354.3	Check Valves	1980	1,755	0.00%	1,755
355.3	Generator	1980	6,118	0.00%	6,118
354.3	Automatic Transfer Switch	1980	1,617	0.00%	1,617
360.21	Forcemain (ft)	1980	80,258	0.00%	80,258
			195,277		**195,277**
			64,146,496		**64,146,496**
			218,366,227		**218,366,227**

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
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Original Cost less Depreciation

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Pennsylvania American Water Company
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Determination of the Depreciated Original Cost

(43)	(44)	(46)	(47)	(48)	(49)	(53)	(54)	(55)	(56)	(57)
Account	Description	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Normal Remaining Life	Total Life Expectancy	Theoretical Reserve Percent	Theoretical Reserve	Depreciated Original Cost
Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input			Col (48) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)
Acct	Descrip	Original Cost	Iowa	Normal Life	age	Rem Life	Total Life	Theo%	Theo Reserve	Net Book
353.00	Land & Land Rights - Land	40,501	ZNonDep	-	37.40	-	-	0.00%	-	40,501
353.05	Land & Land Rights - Easements	94,375	ZNonDep	-	69.85	-	-	0.00%	-	94,375
354.30	Stuctures & Improvements - Pumping	141,754	R4.0	45.00	40.50	9.04	49.54	82.00%	115,887	25,867
354.40	Stuctures & Improvements - Treatment	85,546,240	R4.0	55.00	24.10	32.05	56.15	42.00%	36,191,585	49,354,655
355.30	Generating Equipment - Pumping	15,033	R3.0	35.00	40.50	5.25	45.75	85.00%	12,778	2,255
360.21	Collection Sewers - Force - Mains	42,592	R3.0	75.00	40.50	37.88	78.38	52.00%	22,008	20,584
361.00	Mains Gravity	26,712,768	R2.5	80.00	28.77	54.61	83.39	34.00%	9,053,947	17,658,821
361.70	Collection Sewers - Gravity - Manholes	5,351,534	S2.0	75.00	36.18	44.44	80.63	42.00%	2,271,877	3,079,657
363.00	Service Laterals	2,039,892	R3.0	50.00	50.32	18.54	68.85	64.00%	1,300,430	739,462
364.00	Flow Measuring Devices	90,155	S2.0	30.00	9.11	22.22	31.34	27.00%	24,377	65,778
371.20	Pumping Equipment	36,252	R3.0	35.00	34.50	12.11	46.61	66.00%	24,092	12,160
380.00	Treatment and Disposal Equipment	34,672,152	R2.0	45.00	12.84	34.42	47.26	26.00%	9,017,836	25,654,316
390.00	Office Furniture and Equipment	60,304	R3.0	12.00	6.50	6.06	12.56	52.00%	31,209	29,095
391.00	Transportation Equipment	436,061	R3.0	15.00	26.02	2.73	28.75	82.00%	358,721	77,340
394.00	Laboratory Equipment	596,164	R3.0	20.00	16.52	8.64	25.16	58.00%	344,924	251,240
Grand Total		155,875,776		57.35	23.17	36.45	59.57	37.70%	58,769,671	97,106,105

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Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) * (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
353	City of York-York Water Co-6/30/193	1939	2,500	ZNonDep	0	81.50	3,087	ZNonDep000	0.00000	0	0	0	-	2,500	203,750	-	-	-
353	York City Sewer Auth-Merchants Terr	1984	-	ZNonDep	0	36.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
353	York City Sewer Auth-Merchants Terr	1985	1	ZNonDep	0	35.50	3	ZNonDep000	0.00000	0	0	0	-	1	36	-	-	-
353	York City Sewer Auth-Theodore R. Jc	1986	38,000	ZNonDep	0	34.50	110,145	ZNonDep000	0.00000	0	0	0	-	38,000	1,311,000	-	-	-
353	York City Sewer Auth-Theodore R. Jc	1994	-	ZNonDep	0	26.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
			40,501.00										-	40,501	1,514,786	-	-	-
353.05	City of York-Guardian Trust Co.-4380	1912	27,000	ZNonDep	0	108.50	24,885	ZNonDep000	0.00000	0	0	0	-	27,000	2,929,500	-	-	-
353.05	City of York-P A & S Small Land Co.-	1914	1	ZNonDep	0	106.50	1	ZNonDep000	0.00000	0	0	0	-	1	107	-	-	-
353.05	City of York-Jane Gresly-5658	1915	1,000	ZNonDep	0	105.50	948	ZNonDep000	0.00000	0	0	0	-	1,000	105,500	-	-	-
353.05	City of York-Joseph R. Jones-6352	1917	1	ZNonDep	0	103.50	1	ZNonDep000	0.00000	0	0	0	-	1	104	-	-	-
353.05	City of York-Bilmeyer & Small Co.-67	1918	1	ZNonDep	0	102.50	1	ZNonDep000	0.00000	0	0	0	-	1	103	-	-	-
353.05	City of York-West End Sewer Co.-72:	1919	6,000	ZNonDep	0	101.50	5,911	ZNonDep000	0.00000	0	0	0	-	6,000	609,000	-	-	-
353.05	City of York-Jacob Bare Est.-9701	1926	1,000	ZNonDep	0	94.50	1,058	ZNonDep000	0.00000	0	0	0	-	1,000	94,500	-	-	-
353.05	City of York-William M. Boger-9763	1926	1	ZNonDep	0	94.50	1	ZNonDep000	0.00000	0	0	0	-	1	95	-	-	-
353.05	City of York-Ralph K. Trimmer-9769	1926	1	ZNonDep	0	94.50	1	ZNonDep000	0.00000	0	0	0	-	1	95	-	-	-
353.05	City of York-Grier Hersh-11514	1931	1	ZNonDep	0	89.50	1	ZNonDep000	0.00000	0	0	0	-	1	90	-	-	-
353.05	City of York-York County Poor Distric	1932	1	ZNonDep	0	88.50	1	ZNonDep000	0.00000	0	0	0	-	1	89	-	-	-
353.05	City of York-Annie M. Menough-11811	1932	1	ZNonDep	0	88.50	1	ZNonDep000	0.00000	0	0	0	-	1	89	-	-	-
353.05	City of York-Frederick C. Boesch Est	1932	100	ZNonDep	0	88.50	113	ZNonDep000	0.00000	0	0	0	-	100	8,850	-	-	-
353.05	City of York-Community Swimming A:	1932	1	ZNonDep	0	88.50	1	ZNonDep000	0.00000	0	0	0	-	1	89	-	-	-
353.05	City of York-Norsrd HosieryMills Inc.-	1933	1	ZNonDep	0	87.50	1	ZNonDep000	0.00000	0	0	0	-	1	88	-	-	-
353.05	City of York-Agnes Kehm-12409	1933	1	ZNonDep	0	87.50	1	ZNonDep000	0.00000	0	0	0	-	1	88	-	-	-
353.05	City of York-Sallie S. Bond-34324	1983	1	ZNonDep	0	27.50	4	ZNonDep000	0.00000	0	0	0	-	1	28	-	-	-
353.05	City of York-York Hospital-13281	1936	22,282	ZNonDep	0	84.50	26,345	ZNonDep000	0.00000	0	0	0	-	22,282	1,881,102	-	-	-
353.05	City of York-David M. Myers Est-1375	1937	1	ZNonDep	0	83.50	1	ZNonDep000	0.00000	0	0	0	-	1	84	-	-	-
353.05	City of York-York County Institution D	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-J. Victor Jones-14041	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-York Tack & Nail Works-	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-New York WireCloth Co-1	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-Home Furniture Co-1404	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-David P. Klinedinst Trust-	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-American Chain & Cable	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-George H. Wolf-14041	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-Maryland & Penna. Railr	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-York County Institution D	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-Ella L. Kieffman-14082	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-George D. Deardorff-140	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-Sarah E. Miller-14082	1938	1	ZNonDep	0	82.50	1	ZNonDep000	0.00000	0	0	0	-	1	83	-	-	-
353.05	City of York-Howard E. Holland-1433	1939	1	ZNonDep	0	81.50	1	ZNonDep000	0.00000	0	0	0	-	1	82	-	-	-
353.05	City of York-Ray S. Noonan-15231	1941	1	ZNonDep	0	79.50	1	ZNonDep000	0.00000	0	0	0	-	1	80	-	-	-
353.05	City of York-Fannie M. Free-16625	1945	1	ZNonDep	0	75.50	1	ZNonDep000	0.00000	0	0	0	-	1	76	-	-	-
353.05	City of York-C. Kauffman Miller-17271	1947	1	ZNonDep	0	73.50	1	ZNonDep000	0.00000	0	0	0	-	1	74	-	-	-

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(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021 - ((45)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
353.05	City of York-David Y. Herbst-18571	1950	1	ZNonDep	0	70.50	1	ZNonDep000	0.00000	0	0	0	-	1	71	-	-	-
353.05	City of York-Penn Dairies Inc.-18608	1950	1	ZNonDep	0	70.50	1	ZNonDep000	0.00000	0	0	0	-	1	71	-	-	-
353.05	York City Sewer Auth-City of York-19	1952	1	ZNonDep	0	68.50	1	ZNonDep000	0.00000	0	0	0	-	1	69	-	-	-
353.05	York City Sewer Auth-Commonwealt	1969	1	ZNonDep	0	51.50	2	ZNonDep000	0.00000	0	0	0	-	1	52	-	-	-
353.05	York City Sewer Auth-GTE Sylvania Ir	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-Robert Eichelbe	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-York Stone and	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-York Drilling Co	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-Williams Tool &	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-Luther D. Marcl	1971	1	ZNonDep	0	49.50	2	ZNonDep000	0.00000	0	0	0	-	1	50	-	-	-
353.05	York City Sewer Auth-Sun Oil Compa	1972	1	ZNonDep	0	48.50	2	ZNonDep000	0.00000	0	0	0	-	1	49	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-York City Rede	1987	1,700	ZNonDep	0	33.50	5,075	ZNonDep000	0.00000	0	0	0	-	1,700	56,950	-	-	-
353.05	York City Sewer Auth-Champion Intl.C	1987	2,300	ZNonDep	0	33.50	6,886	ZNonDep000	0.00000	0	0	0	-	2,300	77,050	-	-	-
353.05	York City Sewer Auth-Larry Liebgott-1	1987	2,000	ZNonDep	0	33.50	5,970	ZNonDep000	0.00000	0	0	0	-	2,000	67,000	-	-	-
353.05	York City Sewer Auth-York City Scho	1987	5,100	ZNonDep	0	33.50	15,224	ZNonDep000	0.00000	0	0	0	-	5,100	170,850	-	-	-
353.05	York City Sewer Auth-York College of	1987	5,670	ZNonDep	0	33.50	16,925	ZNonDep000	0.00000	0	0	0	-	5,670	189,945	-	-	-
353.05	York City Sewer Auth-York City Rede	1987	500	ZNonDep	0	33.50	1,493	ZNonDep000	0.00000	0	0	0	-	500	16,750	-	-	-
353.05	York City Sewer Auth-Robert D. Hack	1987	3,000	ZNonDep	0	33.50	8,955	ZNonDep000	0.00000	0	0	0	-	3,000	100,500	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-L. Leveten & Sc	1987	1,600	ZNonDep	0	33.50	4,776	ZNonDep000	0.00000	0	0	0	-	1,600	53,600	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-York City Rede	1987	1,200	ZNonDep	0	33.50	3,582	ZNonDep000	0.00000	0	0	0	-	1,200	40,200	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-City of York-31	1987	1	ZNonDep	0	33.50	3	ZNonDep000	0.00000	0	0	0	-	1	34	-	-	-
353.05	York City Sewer Auth-Maryland and F	1987	750	ZNonDep	0	33.50	2,239	ZNonDep000	0.00000	0	0	0	-	750	25,125	-	-	-
353.05	York City Sewer Auth-Dennis L. Edlet	1988	730	ZNonDep	0	32.50	2,246	ZNonDep000	0.00000	0	0	0	-	730	23,725	-	-	-
353.05	York City Sewer Auth-York City Rede	1988	1	ZNonDep	0	32.50	3	ZNonDep000	0.00000	0	0	0	-	1	33	-	-	-
353.05	York City Sewer Auth-Evelyn JaneSilb	1988	1	ZNonDep	0	32.50	3	ZNonDep000	0.00000	0	0	0	-	1	33	-	-	-
353.05	York City Sewer Auth-Maryland and F	1988	-	ZNonDep	0	32.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
353.05	York City Sewer Auth-Columbia Gas (	1989	1	ZNonDep	0	31.50	3	ZNonDep000	0.00000	0	0	0	-	1	32	-	-	-
353.05	York City Sewer Auth-City of York-34	1993	1	ZNonDep	0	27.50	4	ZNonDep000	0.00000	0	0	0	-	1	28	-	-	-
353.05	York City Sewer Auth-Dentsply Intl. In	1993	1	ZNonDep	0	27.50	4	ZNonDep000	0.00000	0	0	0	-	1	28	-	-	-
353.05	York City Sewer Auth-York Building P	2000	1	ZNonDep	0	20.50	5	ZNonDep000	0.00000	0	0	0	-	1	21	-	-	-
353.05	York City Sewer Auth-Maryland and F	2001	900	ZNonDep	0	19.50	4,615	ZNonDep000	0.00000	0	0	0	-	900	17,550	-	-	-
353.05	York City Sewer Auth-Maryland and F	2001	-	ZNonDep	0	19.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
353.05	York City Sewer Auth-York City Scho	2001	1	ZNonDep	0	19.50	5	ZNonDep000	0.00000	0	0	0	-	1	20	-	-	-
353.05	York City Sewer Auth-John E. Gearhi	2001	1	ZNonDep	0	19.50	5	ZNonDep000	0.00000	0	0	0	-	1	20	-	-	-
353.05	York City Sewer Auth-B.B., Jr., Inc.-3	2002	1	ZNonDep	0	18.50	5	ZNonDep000	0.00000	0	0	0	-	1	19	-	-	-
353.05	York City Sewer Auth-Creekside Inve	2003	1	ZNonDep	0	17.50	6	ZNonDep000	0.00000	0	0	0	-	1	18	-	-	-

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-(45)+0.5	Col (48) / (49)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (49) * (52)	Col (49) + (53)	Col (53) / (54)	Col (49) * (55)	Col (49) - (56)	Col (49) * (49)	Col (49) * (52)	Col (49) * (54)	Col (49) * (49)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
353.05	York City Sewer Auth-John E. Gearha	2008	1	ZNonDep	0	12.50	0	ZNonDep000	0.00000	0	0	0	-	1	13	-	-	-
353.05	York City Sewer Auth***-Cresticon Inc	2008	1	ZNonDep	0	12.50	0	ZNonDep000	0.00000	0	0	0	-	1	13	-	-	-
353.05	York City Sewer Auth-Svedala Industr	2008	1	ZNonDep	0	12.50	0	ZNonDep000	0.00000	0	0	0	-	1	13	-	-	-
353.05	York City Sewer Auth-York College of	2008	1	ZNonDep	0	12.50	0	ZNonDep000	0.00000	0	0	0	-	1	13	-	-	-
353.05	York City Sewer Auth-Metso Minerals	2009	-	ZNonDep	0	11.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
353.05	York City Sewer Auth-Metso Minerals	2010	-	ZNonDep	0	10.50	0	ZNonDep000	0.00000	0	0	0	-	-	-	-	-	-
353.05	York City Sewer Auth-John E. Gearha	2010	11,500	ZNonDep	0	10.50	109,524	ZNonDep000	0.00000	0	0	0	-	11,500	120,750	-	-	-
353.05	York City Sewer Auth-Molt LLC-4330	2018	1	ZNonDep	0	2.50	40	ZNonDep000	0.00000	0	0	0	-	1	3	-	-	-
			94,374.54										-	**94,375**	**8,592,142**	-	-	-
354.4	Structure	1988	1,674,850	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	967,343	707,507	54,432,640	39,811,196	94,243,836	92,116,776
354.4	Piping	1988	57,710	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	33,332	24,378	1,875,588	1,371,776	3,247,364	3,174,072
354.4	Electrical Wiring	1988	70,773	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	40,876	29,897	2,300,119	1,682,272	3,982,391	3,892,509
380	Electrical Equipment	1988	30,853	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	19,175	11,488	896,541	597,005	1,593,546	1,379,626
354.4	Summit	2016	10,200	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	833	9,367	45,900	516,222	562,122	561,000
354.4	ElM Gate Operators	1999	9,800	R4.0	55	21.50	39	R4.0039	0.61495	33.82	55.32	0.38865	3,731	5,869	206,400	324,672	531,072	528,000
380	Pista-grit No. 1	2002	6,733	R2.0	45	18.50	41	R2.0041	0.65281	29.38	47.88	0.38638	2,602	4,131	124,564	197,821	322,386	302,994
380	Grit Dump Facility	2001	64,200	R2.0	45	19.50	43	R2.0043	0.63735	28.68	48.18	0.40473	25,984	38,216	1,251,900	1,841,256	3,093,156	2,889,000
380	Equipment	2004	84,000	R2.0	45	16.50	37	R2.0037	0.68419	30.79	47.29	0.34891	29,306	54,692	1,386,000	2,586,360	3,972,360	3,780,000
354.4	Piping	2004	5,100	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	1,527	3,573	84,150	196,962	281,112	280,500
354.4	Electrical Wiring	2004	12,407	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	3,714	8,693	204,712	479,151	683,863	682,374
354.4	Structure	2008	103,868	R4.0	55	12.50	23	R4.0023	0.77098	42.4	54.9	0.22769	23,649	80,217	1,298,325	4,403,918	5,702,243	5,712,530
354.4	Structure (HVAC, Odor Control)	2008	56,212	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	12,174	48,038	869,438	2,531,640	3,201,078	3,201,660
354.4	Piping	2009	46,044	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	9,629	36,415	529,506	2,002,454	2,531,960	2,532,420
380	Process Equipment	2009	200,000	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	49,662	150,384	2,300,764	6,964,311	9,265,075	9,002,988
380	Process Equipment	2011	787,550	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	161,946	625,614	7,481,820	28,903,452	35,385,272	35,440,200
354.4	Piping	2011	20,400	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	3,512	16,888	193,800	931,872	1,125,672	1,122,000
354.4	Structure	2011	70,944	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	12,214	58,730	673,968	3,240,722	3,914,690	3,901,920
354.4	Electrical Wiring	2011	175,720	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	30,252	145,468	1,669,336	8,026,871	9,696,208	9,664,578
354.4	Electrical Equipment	2011	17,866	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	3,076	14,790	169,723	816,101	985,824	982,608
354.4	Structure	2012	4,800	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	738	4,062	40,800	224,496	265,296	264,000
380	Process Equipment	2012	5,610	R2.0	45	8.50	19	R2.0019	0.83252	37.46	45.96	0.18494	1,038	4,572	47,685	210,151	257,836	252,450
354.4	Structure (Overhead Doors)	2014	12,184	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	1,442	10,742	79,193	589,808	669,001	670,098
354.4	Overhead Door	2017	18,703	R4.0	55	3.50	6	R4.0006	0.94008	51.7	55.2	0.06341	1,186	17,517	65,461	966,955	1,032,417	1,028,676
			3,548,210.96										**1,438,963**	**2,109,248**	**78,128,333**	**109,417,444**	**187,545,780**	**183,383,279**
354.4	Structures	1990	118,984	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	64,574	54,390	3,628,414	3,056,195	6,684,610	6,543,042
380	Process Equipment	1990	269,081	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	124,696	84,385	8,376,964	4,315,428	10,692,392	9,408,636
354.4	Electrical Equipment	1990	49,800	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	27,031	22,769	1,518,900	1,279,362	2,798,262	2,739,000
354.4	Channel Improvement	1995	11,274	R4.0	55	25.50	46	R4.0046	0.54887	30.19	55.69	0.45789	5,162	6,112	287,487	340,362	627,849	620,070
			386,119										**221,463**	**167,656**	**11,811,765**	**8,991,347**	**20,803,113**	**19,310,748**
354.4	Structure	1954	95,717	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	81,359	14,358	6,365,167	789,664	7,154,831	5,264,424
354.4	Structure	1963	237,683	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	202,030	35,653	13,666,761	1,960,883	15,627,644	13,072,554
354.4	Structure	1981	4,800	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	3,300	1,500	189,600	86,208	275,808	264,000

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((49)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (56)	Col (46) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Structure	1991	2,949,234	R4.0	55	29.50	54	R4.0054	0.47586	26.18	55.68	0.52981	1,562,534	1,386,700	87,002,403	77,210,946	164,213,349	162,207,870
354.4	Piping	2020	104,400	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	950	103,450	52,200	5,684,580	5,736,780	5,742,000
354.4	Electrical Wiring	2020	51,600	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	470	51,130	25,800	2,809,620	2,835,420	2,838,000
354.4	Electrical Equipment	2020	80,749	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	735	80,014	40,375	4,396,794	4,437,169	4,441,206
380	Process Equipment	2020	809,933	R2.0	45	0.50	1	R2.0001	0.99094	44.59	45.09	0.01109	8,982	800,951	404,966	36,114,904	36,519,870	36,446,976
364	Flow Meters	2020	30,000	S2.0	30	0.50	2	S2.0002	0.98	29.4	29.9	0.01672	502	29,498	15,000	882,000	897,000	900,000
380	Hand-wheel Gate	2020	78,000	R2.0	45	0.50	1	R2.0001	0.99094	44.59	45.09	0.01109	865	77,135	39,000	3,478,020	3,517,020	3,510,000
380	Stub Shafts & Chain	2020	132,000	R2.0	45	0.50	1	R2.0001	0.99094	44.59	45.09	0.01109	1,464	130,536	66,000	5,885,880	5,951,880	5,940,000
354.4	Wireway	2020	36,000	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	328	35,672	18,000	1,960,200	1,978,200	1,980,000
380	Whipps Sluice Gate	2016	14,250	R2.0	45	4.50	10	R2.0010	0.9106	40.98	45.48	0.09894	1,410	12,840	64,125	583,965	648,090	641,250
380	Whipps Sluice Gate	2016	7,710	R2.0	45	4.50	10	R2.0010	0.9106	40.98	45.48	0.09894	763	6,947	34,695	315,956	350,651	346,950
354.4	Vertical Pump	2016	7,812	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	638	7,174	35,154	395,365	430,519	429,860
			4,639,888										**1,866,330**	**2,773,558**	**108,019,246**	**142,554,985**	**250,574,231**	**244,024,890**
354.4	Structure	1916	14,713	R4.0	55	104.50	190	R4.0190	0.15	8.25	112.75	0.85060	12,506	2,207	1,537,529	121,384	1,658,913	809,226
354.4	Structure	1990	388,835	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	211,060	177,775	11,859,461	9,869,166	21,848,627	21,385,914
380	Process Equipment	1990	111,244	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	66,346	44,898	3,392,931	2,296,069	5,688,999	5,005,963
354.4	Piping	1990	31,297	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	16,988	14,309	954,546	804,010	1,758,556	1,721,313
354.4	Electrical Wiring	1990	100,612	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	54,612	46,000	3,068,855	2,584,713	5,653,367	5,533,640
354.4	Electrical Equipment	1990	124,118	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	67,371	56,747	3,785,588	3,188,580	6,974,168	6,826,486
354.4	UPS-PSPS	2002	7,140	R4.0	55	18.50	34	R4.0034	0.66313	36.47	54.97	0.33655	2,403	4,737	132,090	260,396	392,486	392,700
354.4	Wall Closure	1995	6,196	R4.0	55	25.50	46	R4.0046	0.54887	30.19	55.69	0.45789	2,837	3,359	157,988	187,045	345,033	340,758
354.4	Structure	1996	12,548	R4.0	55	24.50	45	R4.0045	0.55816	30.7	55.2	0.44384	5,569	6,979	307,436	385,236	692,672	690,162
380	Process Equipment	1996	39,392	R2.0	45	24.50	54	R2.0054	0.55525	24.99	49.49	0.49505	19,501	19,891	965,114	984,416	1,949,530	1,772,658
354.4	Piping	1996	8,280	R4.0	55	24.50	45	R4.0045	0.55816	30.7	55.2	0.44384	3,675	4,605	202,950	254,196	457,056	455,400
354.4	Electrical Wiring	1996	8,340	R4.0	55	24.50	45	R4.0045	0.55816	30.7	55.2	0.44384	3,702	4,638	204,330	256,038	460,368	458,700
354.4	Ind. Hot Water Sys.	1997	8,400	R4.0	55	23.50	43	R4.0043	0.57896	31.73	55.23	0.42549	3,574	4,826	197,400	268,532	463,932	462,000
354.4	AC System	1997	117,600	R4.0	55	23.50	43	R4.0043	0.57896	31.73	55.23	0.42549	50,038	67,562	2,763,600	3,731,448	6,495,048	6,468,000
354.4	Vaughn	2020	144,000	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	1,310	142,690	72,000	7,840,800	7,912,800	7,920,000
354.4	Structure	2009	18,000	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	3,764	14,236	207,000	782,820	989,820	990,000
380	Process Equipment	2001	208,843	R2.0	45	18.50	43	R2.0043	0.63735	28.68	48.18	0.40473	84,525	124,318	4,072,442	5,989,623	10,062,065	9,397,944
354.4	Electrical Wiring	2001	49,496	R4.0	55	18.50	35	R4.0035	0.65344	35.94	55.44	0.35173	17,409	32,087	985,180	1,778,961	2,744,080	2,722,302
354.4	Electrical Equipment	2001	323,254	R4.0	55	18.50	35	R4.0035	0.65344	35.94	55.44	0.35173	113,698	209,556	6,303,445	11,617,734	17,921,180	17,778,948
354.4	Structure	2008	3,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	683	2,317	37,500	127,200	164,700	165,000
380	Process Equipment	2008	68,600	R2.0	45	12.50	28	R2.0028	0.75696	34.06	46.56	0.26847	17,880	48,720	832,500	2,268,396	3,100,896	2,997,000
354.4	Piping	2008	18,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	4,098	13,902	225,000	763,200	988,200	990,000
354.4	Electrical Wiring	2008	4,500	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	1,025	3,475	56,250	190,800	247,050	247,500
354.4	Electrical Equipment	2008	1,200	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	273	927	15,000	50,880	65,880	66,000
380	Process Equipment	2010	104,810	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	23,652	80,958	1,098,405	3,759,683	4,858,088	4,707,450
354.4	Piping	2010	31,800	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	6,062	25,738	333,900	1,417,644	1,751,544	1,749,000
354.4	Structure	2010	7,200	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	1,373	5,827	75,600	320,976	396,576	396,000
354.4	Electrical Wiring	2010	83,140	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	15,849	67,291	872,966	3,706,383	4,579,329	4,572,878
354.4	Electrical Equipment	2010	115,858	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	22,088	93,770	1,214,413	5,156,051	6,370,465	6,361,212
380	Process Equipment	2012	16,000	R2.0	45	8.50	19	R2.0019	0.83252	37.48	45.98	0.18494	3,107	13,893	142,800	629,328	772,128	756,000

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Wiring	2012	507,852	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	78,103	429,749	4,316,742	23,752,238	28,068,980	27,931,860
354.4	Electrical Equipment	2012	822,076	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	126,427	695,649	6,987,643	38,448,476	45,436,118	45,214,158
			3,504,743										**1,041,488**	**2,463,275**	**57,358,312**	**133,818,342**	**191,268,652**	**187,285,952**
354.4	Structure	1990	20,492	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	11,123	9,369	625,018	526,450	1,151,468	1,127,082
354.4	Structure	1981	58,620	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	40,297	18,323	2,315,490	1,052,815	3,368,305	3,224,100
380	Process Equipment	1990	114,800	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	68,347	46,253	3,495,300	2,365,344	5,860,644	5,157,000
354.4	Structure	2008	18,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	4,096	13,902	225,000	763,200	988,200	990,000
380	Process Equipment	2008	6,000	R2.0	45	12.50	28	R2.0028	0.75696	34.06	46.56	0.26847	1,611	4,389	75,000	204,360	279,360	270,000
354.4	Piping	2008	24,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	5,465	18,535	300,000	1,017,600	1,317,600	1,320,000
354.4	Electrical Wiring	2008	4,500	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	1,025	3,475	56,250	190,800	247,050	247,500
354.4	Electrical Equipment	2008	1,200	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	273	927	15,000	50,880	65,880	66,000
			247,412										**132,239**	**115,173**	**7,107,058**	**5,171,449**	**13,278,507**	**12,401,682**
354.4	Structure	1954	32,904	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	27,968	4,936	2,188,116	271,458	2,459,574	1,809,720
354.4	Structure	1963	62,179	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	52,852	9,327	3,575,304	512,978	4,088,282	3,419,856
354.4	Structure	1981	1,600	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	1,100	500	63,184	28,729	91,913	87,978
354.4	Structure	1990	37,969	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	20,610	17,359	1,158,061	975,429	2,133,489	2,088,306
380	Process Equipment	1990	198,053	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	118,119	79,934	6,040,610	4,087,810	10,128,420	8,912,376
354.4	Piping	1990	91,844	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	49,853	41,991	2,801,254	2,359,463	5,160,737	5,051,442
354.4	Piping	1963	1,331	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	1,131	200	76,521	10,979	87,500	73,194
354.4	Electrical Wiring	1990	10,066	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	5,464	4,602	307,001	258,585	565,586	553,608
354.4	Electrical Equipment	1990	1,033	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	561	472	31,513	26,543	58,056	56,826
354.4	Baffles	2014	17,432	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	2,064	15,368	113,311	843,902	957,213	958,782
			454,411										**279,722**	**174,689**	**15,354,675**	**9,375,895**	**25,730,770**	**23,012,088**
354.4	Structure	1954	9,715	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	8,258	1,457	646,061	80,150	726,211	534,336
354.4	Structure	1991	71,173	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	37,708	33,465	2,099,609	1,863,314	3,962,924	3,914,526
380	Process Equipment	1991	43,519	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	25,307	18,212	1,283,816	923,913	2,207,729	1,958,364
354.4	Piping	1991	49,873	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	26,423	23,450	1,471,259	1,305,680	2,776,940	2,743,026
354.4	Electrical Equipment	1991	1,080	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	572	508	31,860	28,274	60,134	59,400
380	Drainage Pump	1998	4,200	R2.0	45	22.50	50	R2.0050	0.58452	26.3	48.8	0.46107	1,936	2,264	94,500	110,460	204,960	189,000
354.4	Structure	2001	5,033	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	1,770	3,263	98,140	180,879	279,018	276,804
380	Process Equipment	2001	82,793	R2.0	45	19.50	43	R2.0043	0.63735	28.68	48.18	0.40473	33,509	49,284	1,614,480	2,374,498	3,988,957	3,725,676
380	Process Equipment	2010	79,304	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	17,921	61,373	832,698	2,850,200	3,682,898	3,568,688
354.4	Piping	2010	16,590	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	3,163	13,427	174,195	739,582	913,777	912,450
354.4	Structure	2010	12,384	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	2,361	10,023	130,032	552,079	682,111	681,120
354.4	Electrical Wiring	2010	6,503	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	1,240	5,263	68,279	289,895	358,174	357,654
354.4	Electrical Wiring	2012	47,909	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	7,366	40,541	407,225	2,240,695	2,647,919	2,634,984
354.4	Roof Replacement	2013	9,857	R4.0	55	7.50	14	R4.0014	0.86031	47.32	54.82	0.13681	1,349	8,508	73,926	466,424	540,350	542,124
380	Prim. Eff. Pump #2 Rehab.	2013	28,284	R2.0	45	7.50	17	R2.0017	0.84966	38.23	45.73	0.16401	4,639	23,645	212,130	1,081,297	1,293,427	1,272,780
			468,217										**173,534**	**294,683**	**9,238,188**	**15,087,340**	**24,325,527**	**23,370,942**
354.4	Structure	1981	218,203	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	149,999	68,204	8,619,013	3,918,923	12,537,936	12,001,157
380	Process Equipment	1981	74,400	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	53,715	20,684	2,938,800	1,131,624	4,070,424	3,348,000

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-if(45)>0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (56)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Piping	1981	107,023	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	73,571	33,452	4,227,416	1,922,137	6,149,553	5,886,276
354.4	Electrical Wiring	1981	3,675	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	2,664	1,211	153,055	69,591	222,646	213,114
354.4	Electrical Equipment	1981	2,426	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	1,666	758	95,843	43,578	139,421	133,452
354.4	Structure	2008	69,964	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	15,930	54,034	874,545	2,966,457	3,841,002	3,847,998
			475,891										**297,548**	**178,343**	**16,908,872**	**10,052,310**	**26,960,982**	**25,429,997**
354.4	Structure	1991	8,153	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	4,319	3,834	240,508	213,440	453,948	448,404
354.4	Structure	1981	1,308,142	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	899,256	408,886	51,671,593	23,494,223	75,165,816	71,947,788
380	Process Equipment	1991	173,827	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	101,082	72,745	5,127,902	3,690,351	8,818,254	7,822,224
354.4	Piping	1991	75,758	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	40,136	35,620	2,234,873	1,983,355	4,218,228	4,168,712
354.4	Electrical Wiring	1991	1,922	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	1,019	903	56,711	50,328	107,039	105,732
354.4	Electrical Wiring	1981	12,000	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	8,249	3,751	474,000	215,520	689,520	660,000
354.4	Electrical Equipment	1991	71,562	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	37,914	33,648	2,111,079	1,873,493	3,984,572	3,935,910
354.4	Electrical Equipment	1981	7,200	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	4,949	2,251	284,400	129,312	413,712	396,000
			1,658,564										**1,096,920**	**561,638**	**62,201,066**	**31,650,022**	**93,851,089**	**89,482,770**
354.4	Structure	1981	311,951	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	214,445	97,506	12,322,067	5,602,641	17,924,708	17,157,309
354.4	Electrical Wiring	1981	38,610	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	26,542	12,068	1,525,095	693,436	2,218,531	2,123,550
354.4	Electrical Equipment	1991	2,336	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	1,238	1,098	68,924	61,167	130,091	128,502
354.4	Electrical Equipment	1981	42,428	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	29,167	13,261	1,675,922	762,014	2,437,936	2,333,562
354.4	Structure	2011	71,992	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	12,394	59,598	683,920	3,288,576	3,972,496	3,959,538
354.4	Electrical Wiring	2011	14,994	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	2,581	12,413	142,443	684,826	827,269	824,670
			482,311										**286,367**	**195,944**	**16,418,371**	**11,092,760**	**27,511,131**	**26,527,131**
354.4	Structure	1991	138,060	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	73,148	64,914	4,072,770	3,614,411	7,687,181	7,593,300
354.4	Structure	1981	722,886	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	496,934	225,952	28,553,997	12,983,033	41,537,030	39,758,730
380	Process Equipment	1991	27,408	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	15,938	11,470	806,536	581,872	1,390,408	1,233,360
380	Process Equipment	1981	129,600	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	93,570	36,030	5,119,200	1,971,216	7,090,416	5,832,000
354.4	Piping	1981	26,706	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	18,359	8,347	1,054,887	479,640	1,534,527	1,468,830
354.4	Electrical Wiring	1981	20,533	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	14,115	6,418	811,061	368,776	1,179,838	1,129,326
354.4	Electrical Equipment	1981	6,723	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	4,621	2,101	265,535	120,734	386,269	369,732
			1,071,916										**716,683**	**355,233**	**40,885,986**	**20,119,682**	**60,805,569**	**57,385,278**
354.4	Structure	1991	1,200	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	636	564	35,400	31,416	66,816	66,000
354.4	Structure	1981	148,840	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	102,317	46,523	5,879,190	2,673,171	8,552,361	8,186,214
380	Process Equipment	1991	4,800	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	2,791	2,009	141,600	101,904	243,504	216,000
354.4	Electrical Wiring	1981	22,489	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	15,460	7,029	888,323	403,906	1,292,229	1,236,906
354.4	Electrical Equipment	1991	3,872	R4.0	55	29.50	54	R4.0054	0.47598	28.18	55.68	0.52981	2,052	1,820	114,236	101,379	215,615	212,982
354.4	Electrical Equipment	1981	9,818	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	6,749	3,069	387,803	176,328	564,131	539,979
354.4	Structure	2008	78,946	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	17,520	59,426	961,830	3,262,527	4,224,357	4,232,052
380	Process Equipment	2011	24,380	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	5,009	19,351	231,420	894,012	1,125,432	1,096,200
354.4	Structure	2011	88,314	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	15,204	73,110	838,983	4,034,184	4,873,167	4,857,270
354.4	Electrical Wiring	2011	204,806	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	35,259	169,547	1,945,661	9,355,556	11,301,217	11,264,352
354.4	Electrical Equipment	2011	694,499	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	119,565	574,934	6,597,739	31,724,705	38,322,444	38,197,434

Pennsylvania American Water Company
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As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((45)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
			1,279,945										**322,562**	**957,383**	**18,022,185**	**52,759,088**	**70,781,273**	**70,105,389**
354.4	Structure	1981	82,601	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	56,920	25,681	3,270,647	1,487,110	4,757,757	4,554,066
380	Process Equipment	1981	33,170	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	23,949	9,221	1,310,231	504,522	1,814,753	1,492,668
354.4	Piping	1981	14,483	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	9,956	4,527	572,071	260,111	832,182	796,554
354.4	Electric Equipmnet	1981	9,589	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	6,592	2,997	378,773	172,222	550,995	527,406
			140,044										**97,417**	**42,627**	**5,531,722**	**2,423,965**	**7,955,687**	**7,370,894**
354.4	Structure	1954	313,375	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	266,369	47,006	20,839,451	2,585,345	23,424,796	17,235,636
354.4	Structure	1961	1,600	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	1,100	500	63,184	28,729	91,913	87,978
354.4	Structure	1990	1,477,891	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	802,199	675,692	45,075,682	37,967,025	83,042,707	81,284,016
354.4	Electrical Equipment	1990	44,904	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	24,374	20,530	1,369,572	1,153,584	2,523,156	2,469,720
380	MLSS Analyzer	1999	3,264	R2.0	45	21.50	48	R2.0048	0.5994	26.97	48.47	0.44357	1,448	1,816	70,176	88,030	158,206	146,680
380	Process Equipment	2012	3,074,416	R2.0	45	8.50	19	R2.0019	0.83252	37.48	45.96	0.18494	568,562	2,505,854	26,132,533	115,167,608	141,300,141	138,348,702
354.4	Piping	2012	435,000	R4.0	55	8.50	15	R4.0015	0.85036	46.77	56.27	0.15379	66,889	368,101	3,697,500	20,344,950	24,042,450	23,825,000
354.4	Structure	2012	295,770	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	45,486	250,284	2,514,045	13,833,163	16,347,208	16,267,350
354.4	Electrical Wiring	2012	289,933	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	44,589	245,344	2,464,432	13,560,176	16,024,608	15,946,326
			5,938,153										**1,821,046**	**4,115,107**	**102,226,575**	**204,726,610**	**306,953,185**	**295,711,606**
354.4	Structure	1954	180,860	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	136,731	24,129	10,697,207	1,327,097	12,024,304	8,847,314
354.4	Structure	1963	187,864	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	159,684	28,180	10,802,157	1,549,875	12,352,032	10,332,498
354.4	Structure	1990	93,054	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	50,510	42,544	2,838,147	2,390,557	5,228,704	5,117,970
380	Process Equipment	1963	30,060	R2.0	45	57.50	128	R2.0128	0.16527	7.44	64.94	0.85000	25,551	4,509	1,728,450	223,646	1,952,096	1,352,700
380	Process Equipment	1990	323,696	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	193,053	130,643	9,872,740	6,681,094	16,553,834	14,586,338
354.4	Piping	1963	40,145	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	34,123	6,022	2,308,326	331,195	2,639,521	2,207,964
354.4	Piping	1990	100,625	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	54,619	46,006	3,069,056	2,585,051	5,654,106	5,534,364
354.4	Electrical Wiring	1990	18,268	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	9,916	8,352	557,162	469,295	1,026,456	1,004,718
354.4	Electrical Equipment	1990	864	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	469	395	26,352	22,198	48,548	47,520
380	Process Equipment	2010	213,600	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	48,295	165,305	2,242,800	7,676,784	9,919,584	9,812,000
380	Process Equipment	2011	227,783	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	46,839	180,944	2,163,937	8,359,629	10,523,565	10,250,226
354.4	Structure	2011	144,800	R4.0	55	9.50	17	R4.0017	0.83047	45.88	55.18	0.17216	24,929	119,871	1,375,604	6,614,482	7,990,086	7,964,022
354.4	Electrical Wiring	2011	15,252	R4.0	55	9.50	17	R4.0017	0.83047	45.88	55.18	0.17216	2,626	12,626	144,894	696,711	841,605	838,860
380	Process Piping	2012	222,000	R2.0	45	8.50	19	R2.0019	0.83252	37.48	45.96	0.18494	41,057	180,943	1,887,000	8,316,120	10,203,120	9,930,000
380	Process Equipment	2012	72,000	R2.0	45	8.50	19	R2.0019	0.83252	37.48	45.96	0.18494	13,316	58,684	612,000	2,697,120	3,309,120	3,240,000
354.4	Structure	2012	72,400	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	11,134	61,266	615,397	3,386,129	4,001,526	3,981,978
354.4	Electrical Wiring	2012	2,519	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	387	2,132	21,410	117,804	139,214	138,534
			1,925,789										**853,239**	**1,072,550**	**50,962,639**	**53,444,785**	**104,407,423**	**95,027,006**
354.4	Structure	1990	664,536	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	360,710	303,826	20,268,348	17,071,930	37,340,278	36,549,480
380	Process Equipment	1990	166,743	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	99,446	67,297	5,085,675	3,441,584	8,527,259	7,503,454
354.4	Piping	1990	188,961	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	102,568	86,393	5,763,318	4,854,414	10,617,732	10,392,868
354.4	Electrical Wiring	1990	41,762	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	22,668	19,094	1,273,726	1,072,853	2,346,579	2,296,883
354.4	Structure	2003	17,215	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	5,474	11,741	301,266	646,259	947,525	946,836
380	Process Equipment	2003	42,092	R2.0	45	17.50	39	R2.0039	0.66842	30.08	47.58	0.36780	15,482	26,610	738,617	1,266,139	2,002,756	1,894,158
354.4	Piping	2003	11,521	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	3,663	7,858	201,621	432,506	634,127	633,666

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (46) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Wiring	2003	5,977	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	1,900	4,077	104,601	224,384	326,985	328,746
380	Process Equipment	2010	39,000	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22810	8,895	30,182	409,500	1,401,660	1,811,160	1,755,000
354.4	Piping	2010	5,750	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	1,096	4,654	60,379	258,353	316,732	316,272
354.4	Electrical Wiring	2010	5,088	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	966	4,102	53,216	225,914	279,123	278,718
354.4	Electrical Equipment	2010	3,185	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	607	2,578	33,440	141,978	175,419	175,164
354.4	Electrical Equipment	2011	35,147	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	6,051	29,096	333,895	1,605,506	1,939,400	1,933,074
354.4	Electrical Wiring	2011	5,216	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	898	4,318	49,556	238,285	287,841	286,902
380	Process Equipment	2011	230,702	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	47,439	183,263	2,191,673	8,466,778	10,658,451	10,381,608
380	Process Equipment	2012	20,441	R2.0	45	8.50	19	R2.0019	0.83252	37.46	45.96	0.18494	3,780	16,661	173,747	765,712	939,459	919,836
354.4	Roof Replacement	2013	32,020	R4.0	55	7.50	14	R4.0014	0.86031	47.32	54.82	0.13681	4,381	27,639	240,147	1,515,167	1,755,314	1,761,078
380	Pump Replacement	2013	8,088	R2.0	45	7.50	17	R2.0017	0.84966	38.23	45.73	0.16401	995	5,073	45,513	231,995	277,508	273,078
			1,521,495										**686,942**	**834,483**	**37,326,232**	**43,858,417**	**81,185,648**	**78,626,821**
354.4	Structure	1988	45,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	25,991	19,009	1,462,500	1,069,650	2,532,150	2,475,000
354.4	Piping	1988	3,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,733	1,267	97,500	71,310	168,810	165,000
354.4	Electrical Wiring	1988	3,053	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,763	1,290	99,216	72,565	171,781	167,904
354.4	Electrical Equipment	1988	1,200	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	693	507	39,000	26,524	67,524	66,000
354.4	Structure	2001	91,320	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	32,120	58,200	1,780,740	3,282,041	5,062,781	5,022,600
354.4	Piping	2001	125,806	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	44,250	81,556	2,453,209	4,521,453	6,974,662	6,919,308
			269,378										**106,550**	**162,828**	**5,932,165**	**9,045,543**	**14,977,708**	**14,815,612**
354.4	Structure	1988	45,600	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	26,337	19,263	1,482,000	1,083,912	2,565,912	2,508,000
380	Process Eupment	1988	12,000	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	7,504	4,496	390,000	233,640	623,640	540,000
354.4	Electric Wiring	1988	2,472	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,428	1,044	80,340	56,759	139,099	135,960
			60,072										**35,269**	**24,803**	**1,952,340**	**1,376,311**	**3,328,651**	**3,183,960**
354.4	Structure	1988	4,573,944	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	2,641,773	1,932,171	148,653,180	105,722,649	257,375,829	251,566,920
380	ATI self-cleaning unit	2003	3,438	R2.0	45	17.50	39	R2.0039	0.66842	30.08	47.58	0.36780	1,264	2,174	60,165	103,415	163,580	154,710
354.4	Piping	1988	24,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	13,862	10,138	780,000	570,480	1,350,480	1,320,000
354.4	Electrical Equipment	1988	8,400	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	4,852	3,548	273,000	199,668	472,668	462,000
380	Process Equipment	2011	4,261,618	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	880,429	3,401,189	40,675,371	157,135,381	197,810,752	192,672,810
354.4	Piping	2011	558,800	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	113,419	545,381	6,258,600	30,093,984	36,352,584	36,234,000
354.4	Structure	2011	354,000	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	60,945	293,055	3,363,000	16,170,720	19,533,720	19,470,000
354.4	Electrical Wiring	2011	574,175	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	98,850	475,325	5,454,661	26,228,305	31,682,965	31,579,614
354.4	Structure	2012	3,205	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	493	2,712	27,244	149,907	177,151	176,286
			10,481,560										**3,815,537**	**6,665,693**	**205,545,221**	**339,374,509**	**544,919,729**	**533,636,340**
354.4	Structure	1988	60,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	34,654	25,346	1,950,000	1,426,200	3,376,200	3,300,000
380	Process Equipment	1988	12,000	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	7,504	4,496	390,000	233,640	623,640	540,000
354.4	Piping	1988	12,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	6,931	5,069	390,000	285,240	675,240	660,000
354.4	Electrical Wiring	1988	3,509	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	2,027	1,482	114,036	83,404	197,440	192,984
380	Process Equipment	2011	109,558	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	22,528	87,030	1,040,797	4,020,764	5,061,561	4,930,092
354.4	Piping	2011	3,000	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	516	2,484	28,500	137,040	165,540	165,000
354.4	Structure	2011	32,245	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	5,551	26,694	306,329	1,472,961	1,779,290	1,773,486
354.4	Electrical Wiring	2011	10,994	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	1,893	9,101	104,447	502,224	606,671	604,692

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Alternnt	Eng Alternnt	Eng Alternnt	AUS Input	AUS Input	2021 - [45]+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) * (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * [49]	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Equipment	2011	3,000	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	516	2,484	28,500	137,040	165,540	165,000
			246,306										**82,120**	**164,186**	**4,352,609**	**8,298,513**	**12,651,122**	**12,331,254**
354.4	Structure	1988	1,758,902	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,015,889	743,013	57,184,328	41,809,110	96,973,438	96,739,632
380	Process Equipment	1988	441,600	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	276,159	165,441	14,352,000	8,597,952	22,949,952	19,872,000
354.4	Piping	1988	9,600	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	5,545	4,055	312,000	228,192	540,192	528,000
354.4	Electrical Wiring	1988	65,434	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	37,792	27,642	2,126,592	1,555,357	3,681,949	3,598,848
354.4	Electrical Equipment	1988	3,600	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	2,079	1,521	117,000	85,572	202,572	198,000
380	Process Equipment	2010	393,572	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	88,967	304,585	4,132,510	14,144,992	18,277,502	17,710,758
			2,672,708										**1,426,451**	**1,246,257**	**78,204,430**	**66,421,175**	**144,625,605**	**138,647,238**
354.4	Structure	1988	626,466	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	361,828	264,638	20,360,141	14,891,094	35,251,235	34,455,623
380	Process Equipment	1988	60,022	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	37,535	22,487	1,950,714	1,168,628	3,119,341	2,700,968
354.4	Piping	1988	220,800	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	127,527	93,273	7,176,000	5,248,416	12,424,416	12,144,000
354.4	Electrical Wiring	1988	46,590	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	26,909	19,681	1,514,159	1,107,432	2,621,591	2,562,423
354.4	Structure	2008	120,794	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	27,504	93,290	1,509,930	5,121,683	6,631,613	6,643,692
380	Process Equipment	2008	66,600	R2.0	45	12.50	28	R2.0028	0.75696	34.06	46.56	0.26847	17,880	48,720	832,500	2,266,396	3,100,896	2,997,000
354.4	Piping	2008	12,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	2,732	9,268	150,000	508,800	658,800	660,000
354.4	Electrical Wiring	2008	4,500	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	1,025	3,475	56,250	190,800	247,050	247,500
354.4	Electrical Equipment	2008	1,200	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	273	927	15,000	50,880	65,880	66,000
380	Process Equipment	2011	223,502	R2.0	45	9.50	21	R2.0021	0.8155	36.7	46.2	0.20563	45,959	177,543	2,123,273	8,202,538	10,325,811	10,057,608
354.4	Piping	2011	209,584	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	36,082	173,502	1,991,044	9,573,779	11,564,823	11,527,098
354.4	Electrical Wiring	2011	73,312	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	12,621	60,691	696,460	3,348,874	4,045,334	4,032,138
354.4	Electrical Equipment	2011	1,223,603	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	210,655	1,012,948	11,624,227	55,894,176	67,518,403	67,298,154
			2,868,972										**908,530**	**1,960,442**	**49,999,698**	**107,575,496**	**157,575,193**	**155,392,224**
354.4	Structure	1988	75,600	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	43,664	31,936	2,457,000	1,797,012	4,254,012	4,158,000
380	Process Equipment	1988	66,000	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	41,274	24,726	2,145,000	1,285,020	3,430,020	2,970,000
354.4	Structure	2008	18,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	4,098	13,902	225,000	783,200	988,200	990,000
380	Process Equipment	2008	6,000	R2.0	45	12.50	28	R2.0028	0.75696	34.06	46.56	0.26847	1,611	4,389	75,000	204,360	279,360	270,000
354.4	Piping	2008	24,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	5,465	18,535	300,000	1,017,600	1,317,600	1,320,000
354.4	Electrical Wiring	2008	4,500	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	1,025	3,475	56,250	190,800	247,050	247,500
354.4	Electrical Equipment	2008	1,200	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	273	927	15,000	50,880	65,880	66,000
			195,300										**97,410**	**97,890**	**5,273,250**	**5,308,872**	**10,582,122**	**10,021,500**
354.4	Structure	1989	1,917,083	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	1,073,950	843,133	60,388,104	47,409,454	107,797,558	105,439,546
354.4	Piping	2021	66,078	R4.0	55	0.00	0	R4.0000	1	55	55	0.00000	-	66,078	-	3,634,290	3,634,290	3,634,290
354.4	Electrical Wiring	2021	88,800	R4.0	55	0.00	0	R4.0000	1	55	55	0.00000	-	88,800	-	4,884,000	4,884,000	4,884,000
354.4	Electrical Equipment	2021	240,000	R4.0	55	0.00	0	R4.0000	1	55	55	0.00000	-	240,000	-	13,200,000	13,200,000	13,200,000
380	1-EIM Gate Operator	2021	3,360	R2.0	45	0.00	0	R2.0000	1	45	45	0.00000	-	3,360	-	151,200	151,200	151,200
380	Filter Equip. Replace.	2021	6,515,594	R2.0	45	0.00	0	R2.0000	1	45	45	0.00000	-	6,515,594	-	293,201,748	293,201,748	293,201,748
354.4	Structure	2021	51,581	R4.0	55	0.00	0	R4.0000	1	55	55	0.00000	-	51,581	-	2,836,944	2,836,944	2,836,944
380	Mechanical Equipment	2021	192,000	R2.0	45	0.00	0	R2.0000	1	45	45	0.00000	-	192,000	-	8,640,000	8,640,000	8,640,000
354.4	Structure	2021	500,912	R4.0	55	0.00	0	R4.0000	1	55	55	0.00000	-	500,912	-	27,550,182	27,550,182	27,550,182
380	Weir Gates and Operators	2015	124,794	R2.0	45	5.50	12	R2.0012	0.88304	40.19	45.89	0.12038	15,023	109,771	686,367	5,015,471	5,701,838	5,615,730

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((49)/(48))	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables to col (51)	Col (48) * (52)	Col (48) * (53)	Col (53) / (54)	Col (48) * (56)	Col (48) - (56)	Col (49) * (49)	Col (49) * (53)	Col (49) * (54)	Col (49) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
380	Mud Valves	2014	23,976	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	3,395	20,581	155,844	944,654	1,100,498	1,078,920
380	Stop Log	2015	10,156	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	1,223	8,933	55,856	408,154	464,009	457,002
			9,734,334										**1,083,591**	**8,640,743**	**61,286,171**	**407,876,097**	**469,152,267**	**466,689,562**
354.4	Structure	1989	533,930	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	299,108	234,822	16,818,808	13,204,099	30,022,906	29,366,172
354.4	Structure	1981	373,073	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	256,461	116,612	14,736,376	6,700,387	21,436,763	20,519,004
380	Process Equipment	1989	110,868	R2.0	45	31.50	70	R2.0070	0.44557	20.05	51.55	0.61106	67,747	43,121	3,492,342	2,222,903	5,715,245	4,989,060
380	Process Equipment	1981	38,046	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	27,469	10,577	1,502,817	578,680	2,081,497	1,712,070
354.4	Piping	1981	18,007	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	11,004	5,003	632,269	287,482	919,751	880,374
354.4	3-EIM Gate Operators	1999	10,080	R4.0	55	21.50	39	R4.0039	0.61495	33.82	55.32	0.38885	3,918	6,162	216,720	340,906	557,626	554,400
354.4	Structure	2001	208,362	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	73,287	135,075	4,063,059	7,488,530	11,551,589	11,459,910
380	Process Equipment	2001	874,583	R2.0	45	19.50	43	R2.0043	0.63735	26.68	48.18	0.40473	353,970	520,613	17,054,365	25,083,035	42,137,399	39,356,226
354.4	Electrical Wiring	2001	39,628	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	13,938	25,690	772,738	1,424,216	2,196,954	2,179,518
354.4	Electrical Equipment	2001	23,286	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	8,183	15,083	453,679	836,166	1,289,845	1,279,608
380	Process Equipment	2013	106,594	R2.0	45	7.50	17	R2.0017	0.84966	38.23	45.73	0.16401	17,482	89,112	799,452	4,075,073	4,874,525	4,796,712
			2,334,438										**1,133,587**	**1,201,850**	**80,542,525**	**82,241,477**	**122,784,100**	**117,093,054**
354.4	Structure	1989	1,259,844	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	705,765	554,079	39,685,097	31,155,951	70,841,047	69,291,439
354.4	Structure	1969	107,554	R4.0	55	51.50	94	R4.0094	0.17719	9.75	61.25	0.84082	90,433	17,121	5,539,010	1,048,646	6,587,658	5,915,446
380	Process Equipment	1969	953	R2.0	45	51.50	114	R2.0114	0.21577	9.71	61.21	0.84137	802	151	49,069	9,252	58,321	42,876
354.4	Piping	1969	488	R4.0	55	51.50	94	R4.0094	0.17719	9.75	61.25	0.84082	394	74	24,102	4,563	28,665	25,740
354.4	Electrical Wiring	1989	29,599	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	16,581	13,018	932,375	731,988	1,664,363	1,627,956
354.4	Electrical Equipment	1989	4,110	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	2,302	1,808	129,465	101,640	231,105	226,050
354.4	Electrical Equipment	1969	1,812	R4.0	55	51.50	94	R4.0094	0.17719	9.75	61.25	0.84082	1,524	288	93,318	17,867	110,985	99,660
380	Process Equipment	1998	10,980	R2.0	45	22.50	50	R2.0050	0.58452	26.3	48.8	0.46107	5,063	5,917	247,050	288,774	535,824	494,100
354.4	Structure	2008	248,924	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22768	56,678	192,246	3,111,555	10,554,395	13,665,950	13,890,842
			1,664,244										**879,542**	**784,702**	**49,811,041**	**43,912,876**	**93,723,918**	**91,414,111**
354.4	Structure	1991	582,977	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	308,867	274,110	17,197,616	15,262,333	32,460,148	32,063,724
354.4	Structure	1981	3,059,014	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	2,102,858	956,156	120,831,049	54,939,890	175,770,939	168,245,765
380	Process Equipment	1991	945,770	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	549,975	395,795	27,900,227	20,078,706	47,978,932	42,559,868
380	Process Equipment	1981	60,000	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	43,319	16,681	2,369,991	912,596	3,282,587	2,699,989
354.4	Piping	1991	228,930	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	121,269	107,661	6,753,435	5,993,387	12,746,822	12,591,150
354.4	Piping	1981	120,000	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	82,492	37,508	4,739,995	2,155,198	6,895,193	6,599,993
354.4	Electrical Wiring	1991	107,947	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	57,192	50,755	3,184,442	2,826,058	6,010,500	5,937,096
354.4	Electrical Wiring	1981	45,094	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	30,999	14,095	1,781,197	809,881	2,591,078	2,480,148
354.4	Electrical Equipment	1991	28,610	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	15,158	13,452	844,007	749,020	1,593,027	1,573,572
354.4	Electrical Equipment	1981	38,447	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	26,430	12,017	1,518,672	690,515	2,209,188	2,114,607
354.4	Structure	1989	109,694	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	61,451	48,243	3,455,374	2,712,743	6,168,116	6,033,192
354.4	Piping	1989	32,057	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	17,956	14,099	1,009,788	792,765	1,802,554	1,763,124
354.4	Electrical Equipment	1989	3,740	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	2,095	1,645	117,823	92,500	210,323	205,722
380	Polymer Mixers	1998	33,120	R2.0	45	22.50	50	R2.0050	0.58452	26.3	48.8	0.46107	15,271	17,849	745,200	871,056	1,616,256	1,490,400
380	Sludge Feed Pumps	2016	54,000	R2.0	45	4.50	10	R2.0010	0.9108	40.96	45.48	0.09894	5,343	48,657	243,000	2,212,920	2,455,920	2,430,000
380	P-23 Utility Pump	1999	6,786	R2.0	45	21.50	48	R2.0048	0.5994	26.97	48.47	0.44357	3,010	3,776	145,899	183,018	328,917	305,370
380	P-24 Utility Pump	2000	6,786	R2.0	45	20.50	46	R2.0046	0.61446	27.65	48.15	0.42575	2,889	3,897	139,113	187,633	326,746	305,370

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(43)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (49) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Structure	2003	120,526	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	38,321	82,205	2,109,198	4,524,531	6,633,729	6,628,908
380	Process Equipment	2003	1,151,328	R2.0	45	17.50	39	R2.0039	0.66842	30.08	47.58	0.36780	423,456	727,870	20,148,240	34,631,946	54,780,186	51,809,760
354.4	Piping	2003	255,372	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	81,196	174,176	4,469,010	9,586,665	14,055,675	14,045,460
354.4	Electrical Wiring	2003	239,086	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	76,017	163,069	4,183,958	8,975,273	13,159,271	13,149,708
354.4	Electrical Equipment	2003	10,843	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	3,448	7,395	189,756	407,054	596,810	596,376
380	Sludge Sampler	2004	10,920	R2.0	45	16.50	37	R2.0037	0.68419	30.79	47.29	0.34891	3,810	7,110	180,180	338,227	516,407	491,400
364	N. Gas Flowmeter	2004	2,419	S2.0	30	16.50	55	S2.0055	0.49742	14.92	31.42	0.52514	1,270	1,149	38,917	36,094	76,011	72,576
380	Process Equip	2004	122,790	R2.0	45	16.50	37	R2.0037	0.68419	30.79	47.29	0.34891	42,843	79,947	2,026,035	3,780,704	5,806,739	5,525,550
354.4	Electric Equip	2004	33,517	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	10,033	23,484	553,034	1,294,434	1,847,468	1,843,446
354.4	Electric Wiring	2004	27,143	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	8,125	19,018	447,856	1,048,255	1,496,111	1,492,854
354.4	Piping	2004	36,443	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	10,909	25,534	601,306	1,407,421	2,008,727	2,004,354
354.4	Structure	2004	14,180	R4.0	55	16.50	30	R4.0030	0.70211	38.62	55.12	0.29935	4,244	9,921	233,840	546,859	780,499	778,800
380	Process Equip	2005	473,168	R2.0	45	15.50	34	R2.0034	0.70812	31.87	47.37	0.32721	154,825	318,341	7,334,077	15,079,608	22,413,685	21,292,481
354.4	Piping	2005	5,369	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	1,508	3,861	83,226	213,111	296,337	295,317
354.4	Electric Equip	2005	14,894	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	4,183	10,711	230,863	591,159	822,022	819,192
354.4	Electric Wiring	2005	20,376	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	5,723	14,653	315,832	808,733	1,124,565	1,120,693
354.4	Structure	2005	77,198	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	21,681	55,517	1,196,563	3,063,974	4,260,537	4,245,870
380	Process Equip	2005	82,173	R2.0	45	15.50	34	R2.0034	0.70812	31.87	47.37	0.32721	26,888	55,285	1,273,685	2,618,860	3,892,544	3,697,794
354.4	Electric Wiring	2005	68,565	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	19,257	49,308	1,082,762	2,721,358	3,784,120	3,771,093
380	Process Equip	2006	295,020	R2.0	45	14.50	32	R2.0032	0.72426	32.59	47.09	0.30792	90,842	204,178	4,277,784	9,614,687	13,892,471	13,275,680
354.4	Structure	2006	229,084	R4.0	55	14.50	26	R4.0026	0.74138	40.78	55.28	0.26230	60,089	168,995	3,321,715	9,342,036	12,663,750	12,599,607
354.4	Piping	2006	109,970	R4.0	55	14.50	26	R4.0026	0.74138	40.78	55.28	0.26230	28,845	81,125	1,594,559	4,484,559	6,079,117	6,048,326
354.4	Electrical Equip	2006	14,427	R4.0	55	14.50	26	R4.0026	0.74138	40.78	55.28	0.26230	3,784	10,643	209,187	588,321	797,508	793,469
354.4	Electrical Wiring	2006	13,701	R4.0	55	14.50	26	R4.0026	0.74138	40.78	55.28	0.26230	3,594	10,107	198,669	558,739	757,408	753,572
354.4	Structure	2008	121,892	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	27,754	94,138	1,523,655	5,168,238	6,691,893	6,704,082
380	Process Equipment	2010	109,052	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	24,663	84,419	1,145,356	3,920,398	5,065,757	4,908,679
380	Process Equipment	2010	1,963,852	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	444,027	1,519,825	20,620,442	70,580,827	91,201,268	88,373,322
354.4	Piping	2010	832,030	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	158,610	673,420	8,736,311	37,091,880	45,828,190	45,761,628
354.4	Structure	2010	1,178,021	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	224,566	953,455	12,369,218	52,516,167	64,885,386	64,791,144
354.4	Electrical Wiring	2010	558,951	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	106,172	450,779	5,847,988	24,828,684	30,676,672	30,632,316
354.4	Electrical Equipment	2010	1,321,270	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	251,874	1,069,396	13,873,331	58,902,199	72,775,530	72,669,828
354.4	HVAC Equipment	2010	195,131	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	37,198	157,933	2,048,873	8,698,931	10,747,804	10,732,194
354.4	HVAC Piping/Duct	2010	208,891	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	39,821	169,070	2,193,358	9,312,370	11,505,727	11,489,016
354.4	Electrical Equipment	2011	27,224	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	4,687	22,537	258,632	1,243,611	1,502,242	1,497,342
354.4	Piping	2012	205,108	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	31,543	173,565	1,743,415	9,592,882	11,336,297	11,280,918
354.4	Structure	2012	13,200	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	2,030	11,170	112,200	617,364	729,564	726,000
354.4	Electrical Wiring	2012	2,239	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	344	1,895	19,033	104,727	123,761	123,156
380	Process Equipment	2012	16,276	R2.0	45	8.50	19	R2.0019	0.83252	37.46	45.96	0.18494	3,010	13,266	138,343	609,684	748,027	732,402
380	(2)Blending units & (3) Centrifuge Pur	2018	22,200	R2.0	45	2.50	6	R2.0006	0.94604	42.57	45.07	0.05547	1,231	20,969	55,500	945,054	1,000,554	999,000
380	Centrifuge Rehabilitation	2014	56,483	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	7,999	48,484	367,138	2,225,422	2,592,561	2,541,726
354.4	Heat Trace Installation	2014	15,355	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	1,818	13,537	99,809	743,345	843,154	844,535
380	Sensidyne Gas Detection System	2014	15,337	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	2,172	13,165	99,692	604,286	703,977	690,174
354.4	Gas Detection/Alarm	2014	9,330	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	1,104	8,226	60,645	451,665	512,310	513,150
380	Capacitor	2014	7,112	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	1,007	6,105	46,231	280,229	326,459	320,058
354.4	Glass Lined Valves	2014	44,609	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	5,281	39,328	288,957	2,159,512	2,449,469	2,453,484

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraised Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation (Lookup Iowa Curves Life Tables @ col (51))	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(43)+0.5]	Col (49) / (48)	Col (47) & (50)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (52)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
380	Vanton Pump	2015	15,985	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	1,924	14,061	87,918	642,445	730,364	719,334
380	Vaughn Pump HE	2015	17,158	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	2,065	15,093	94,367	689,564	783,931	772,092
380	Vaughn Vertical WW Pump	2015	13,650	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	1,643	12,007	75,075	548,594	623,669	614,250
380	VFD's	2015	11,929	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	1,436	10,493	65,611	479,435	545,045	536,814
380	Backwash Strainer	2015	20,400	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	2,456	17,944	112,200	819,876	932,076	918,000
380	Sulfuric Acid Tank	2015	31,993	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	3,851	28,142	175,963	1,285,807	1,461,769	1,439,694
380	Fairbanks Morse Pumps	2015	35,796	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	4,309	31,487	196,878	1,438,815	1,635,693	1,611,330
354.4	Gear Unit Repair	2018	70,043	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	5,719	64,324	315,195	3,544,890	3,860,085	3,852,380
354.4	Heat Trace Panel	2018	23,803	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	1,943	21,860	107,112	1,204,656	1,311,768	1,309,150
394	Wilo Sub Pump	2016	8,913	R3.0	20	4.50	23	R3.0023	0.77785	15.56	20.06	0.22433	1,551	5,362	31,107	107,562	138,669	138,255
394	(3)Wilo Pumps	2016	23,166	R3.0	20	4.50	23	R3.0023	0.77785	15.56	20.06	0.22433	5,197	17,969	104,248	360,466	464,714	463,324
394	(2) Wilo Pumps	2016	23,968	R3.0	20	4.50	23	R3.0023	0.77785	15.56	20.06	0.22433	5,377	18,591	107,858	372,949	480,807	479,369
354.4	GBT Sample Pump	2018	12,120	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	990	11,130	54,540	613,393	667,933	666,600
354.4	Strainer	2016	12,960	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	1,058	11,902	58,320	655,906	714,226	712,800
354.4	Sump Pump	2016	29,460	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	2,405	27,055	132,570	1,490,971	1,623,541	1,620,300
354.4	Dodge Reducer	2016	21,834	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	1,783	20,051	98,253	1,105,019	1,203,272	1,200,870
354.4	Polymer Feed Pump	2018	14,771	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	1,206	13,565	66,469	747,550	814,018	812,394
			16,200,004										**5,993,428**	**10,206,576**	**322,796,433**	**534,476,600**	**857,273,034**	**833,246,959**
354.4	Structure	1954	250,700	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	213,095	37,605	16,671,577	2,068,278	18,739,855	13,788,522
354.4	Structure	1963	135,136	R4.0	55	57.50	105	R4.0105	0.15	8.25	65.75	0.85000	114,868	20,271	7,770,504	1,114,898	8,885,402	7,432,656
354.4	Structure	1981	39,096	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	26,877	12,221	1,544,387	702,207	2,246,594	2,150,412
354.4	Structure	1991	834,875	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	442,325	392,550	24,628,815	21,857,030	46,485,845	45,918,130
380	Process Equipment	1991	445,835	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	259,257	186,578	13,152,127	9,465,073	22,617,199	20,062,566
380	Process Equipment	1981	20,810	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	15,025	5,785	822,011	316,526	1,138,537	936,468
354.4	Piping	1991	44,227	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	23,432	20,795	1,304,702	1,157,868	2,462,570	2,432,496
354.4	Electrical Wiring	1991	428,068	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	226,794	201,274	12,627,994	11,206,810	23,834,804	23,543,718
354.4	Electrical Wiring	1981	540	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	371	169	21,330	9,698	31,028	29,700
354.4	Structure	1989	78,289	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	43,858	34,431	2,466,110	1,936,092	4,402,202	4,305,906
380	Process Equipment	1989	270,398	R2.0	45	31.50	70	R2.0070	0.44557	20.05	51.55	0.61106	165,230	105,168	8,517,550	5,421,488	13,939,038	12,167,928
354.4	Piping	1989	91,464	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	51,236	40,229	2,881,116	2,261,905	5,143,021	5,030,520
354.4	Electrical Equipment	1989	37,417	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	20,961	16,456	1,178,842	925,327	2,103,969	2,057,946
354.4	Electrical Equipment	1991	3,290,862	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	1,743,426	1,547,230	97,074,527	86,149,530	183,224,057	180,986,407
354.4	UPS-Cogeneration	2002	11,850	R4.0	55	18.50	34	R4.0034	0.66313	36.47	54.97	0.33655	3,988	7,862	219,225	432,170	651,395	651,750
354.4	Electrical Equipment	1981	338	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	233	105	13,387	6,078	19,444	18,612
354.4	VAX Upgrade	1995	29,180	R4.0	55	25.50	46	R4.0046	0.54887	30.19	55.69	0.45789	13,361	15,819	744,100	880,956	1,625,056	1,604,922
354.4	Electrical Equipment	1997	10,500	R4.0	55	23.50	43	R4.0043	0.57696	31.73	55.23	0.42549	4,468	6,032	246,750	333,165	579,915	577,500
380	Computer System	1999	738,488	R2.0	45	21.50	48	R2.0048	0.5894	26.97	48.47	0.44357	327,571	410,917	15,877,501	19,917,032	35,794,533	33,231,978
354.4	HVAC Upgrade	1999	131,070	R4.0	55	21.50	39	R4.0039	0.61495	33.82	55.32	0.38865	50,940	80,130	2,818,005	4,432,787	7,250,792	7,208,850
354.4	SCADAlarm System	2002	49,372	R4.0	55	18.50	34	R4.0034	0.66313	36.47	54.97	0.33655	16,616	32,756	913,375	1,800,582	2,713,957	2,715,438
354.4	Electrical Wiring	2003	20,292	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	6,452	13,840	355,110	761,762	1,116,872	1,116,060
354.4	Electrical Equipment	2003	124,697	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	39,647	85,050	2,182,194	4,681,118	6,863,312	6,856,324
354.4	Electrical Equipment	2007	22,206	R4.0	55	13.50	25	R4.0025	0.75124	41.32	54.82	0.24626	5,468	16,738	299,781	917,552	1,217,333	1,221,330
354.4	Structure	2008	201,197	R4.0	55	12.50	23	R4.0023	0.77098	42.4	54.9	0.22769	45,810	155,387	2,514,960	8,530,744	11,045,704	11,065,824
354.4	Stucture	2010	344,837	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19083	65,736	279,101	3,620,786	15,372,825	18,993,611	18,966,024

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables 68 cor (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Wiring	2010	180,630	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	30,621	130,009	1,666,611	7,160,868	8,847,478	8,834,628
354.4	Electrical Equipment	2010	108,534	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	20,309	88,225	1,118,603	4,749,268	5,867,871	5,859,348
380	Process Equipment	2010	27,240	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	6,159	21,081	286,020	979,006	1,265,026	1,225,800
380	Process Piping	2010	38,160	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	8,628	29,532	400,680	1,371,470	1,772,150	1,717,200
354.4	Piping	2011	37,447	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	6,447	31,000	355,748	1,710,588	2,066,336	2,059,596
354.4	Electrical Wiring	2011	180,788	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	31,121	149,645	1,717,273	8,257,373	9,974,646	9,942,108
354.4	Electrical Equipment	2011	20,722	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	3,567	17,155	196,855	946,563	1,143,418	1,139,688
354.4	Struct. (Breakroom Renovation)	2014	49,523	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	5,863	43,660	321,898	2,397,399	2,719,297	2,723,754
354.4	Struct. (Bathroom Renovation)	2014	17,135	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	2,028	15,107	111,376	829,496	940,872	942,414
			5,289,706										**4,041,790**	**4,247,916**	**226,661,610**	**231,061,532**	**457,723,139**	**440,524,523**
354.4	Structure	1990	120,856	R4.0	55	30.50	55	R4.0055	0.46712	25.88	56.19	0.54280	65,602	55,256	3,686,169	3,104,842	6,791,011	6,647,190
354.4	Structure	1981	408,911	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	281,096	127,813	18,151,977	7,344,038	23,496,015	22,490,094
380	Process Equipment	1990	59,880	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	35,712	24,168	1,826,340	1,235,923	3,062,263	2,694,600
380	Process Equipment	1981	131,573	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	94,996	36,578	5,197,141	2,001,228	7,198,369	5,920,794
354.4	Piping	1990	7,315	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	3,971	3,344	223,114	187,927	411,041	402,336
354.4	Piping	1981	22,345	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	15,361	6,984	882,835	401,320	1,283,955	1,228,986
354.4	Electrical Wiring	1990	9,727	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	5,280	4,447	296,880	249,892	546,571	534,998
354.4	Electrical Wiring	1981	14,294	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	9,828	4,468	564,629	256,727	821,356	785,192
354.4	Electrical Equipment	1990	1,642	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	891	751	50,069	42,173	92,242	90,288
354.4	Electrical Equipment	1981	5,942	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	4,085	1,857	234,725	106,726	341,450	326,832
380	Process Equipment	2010	149,509	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	33,804	115,705	1,569,847	5,373,361	6,943,207	6,727,914
380	Grav. Belt Thick. Sludge Pumps	2019	28,800	R2.0	45	1.50	3	R2.0003	0.97291	43.78	45.28	0.03313	954	27,846	43,200	1,260,864	1,304,064	1,296,000
			960,797										**551,579**	**409,218**	**30,726,526**	**21,585,021**	**52,291,544**	**49,146,222**
354.4	Structure	1991	362,285	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52961	191,942	170,343	10,687,409	9,484,622	20,172,031	19,925,677
354.4	Structure	1981	93,706	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	64,416	29,290	3,701,371	1,682,953	5,384,324	5,153,808
354.4	Structure	1958	153,922	R4.0	55	52.50	95	R4.0095	0.17164	9.44	61.94	0.84759	130,462	23,460	8,080,884	1,453,020	9,533,904	8,465,688
354.4	Structure	2008	246,264	R4.0	55	12.50	23	R4.0023	0.77095	42.4	54.9	0.22769	56,072	190,192	3,078,300	10,441,584	13,519,894	13,544,520
380	Process Equipment	2011	183,180	R2.0	45	9.50	21	R2.0021	0.8155	38.7	46.2	0.20563	37,667	145,513	1,740,210	6,722,706	8,462,916	8,243,100
354.4	Piping	2011	274,324	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	47,226	227,096	2,606,074	12,531,102	15,137,176	15,087,798
354.4	Structure	2011	468,532	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	80,318	386,214	4,432,058	21,311,200	25,743,258	25,656,282
354.4	Electrical Wiring	2011	346,213	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	59,604	286,609	3,289,025	15,815,019	19,104,044	19,041,726
354.4	Electrical Equipment	2011	3,893,083	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	670,233	3,222,850	36,984,290	177,836,041	214,820,331	214,119,576
354.4	Biogas Piping Improvement	2017	135,720	R4.0	55	3.50	6	R4.0006	0.94008	51.7	55.2	0.06341	8,606	127,114	475,020	7,016,724	7,491,744	7,464,600
			6,155,229										**1,346,546**	**4,808,681**	**75,074,641**	**264,294,981**	**339,369,622**	**336,705,775**
354.4	Structure	1968	16,020	R4.0	55	52.50	95	R4.0095	0.17164	9.44	61.94	0.84759	13,576	2,442	841,050	151,229	992,279	881,100
371.2	Process Equipment	1968	17,340	R3.0	35	52.50	150	R3.0150	0.15	5.25	57.75	0.85000	14,739	2,601	910,350	91,035	1,001,385	606,900
371.2	Pressurization Water Pump	2002	9,456	R3.0	35	18.50	53	R3.0053	0.51325	17.96	36.46	0.50741	4,798	4,658	174,936	169,830	344,766	330,960
371.2	Pressurization Water Pump	2003	9,456	R3.0	35	17.50	50	R3.0050	0.53792	18.83	36.33	0.48170	4,555	4,901	165,480	178,056	343,536	330,960
354.4	Piping	1968	3,840	R4.0	55	52.50	95	R4.0095	0.17164	9.44	61.94	0.84759	3,255	585	201,600	36,250	237,850	211,200
			56,112										**40,925**	**15,187**	**2,293,416**	**626,400**	**2,919,816**	**2,361,120**
354.4	Structure	1954	18,019	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85600	15,316	2,703	1,198,277	148,658	1,348,935	991,056

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS input	AUS input	2021-((45)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (46) * (55)	Col (46) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Structure	1961	5,669	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	3,911	1,778	224,723	102,178	326,901	312,906
354.4	Structure	1991	372,635	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	197,426	175,209	10,992,745	9,755,595	20,748,340	20,494,948
354.4	Electrical Wiring	1991	28,258	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	14,987	13,301	834,484	740,569	1,575,054	1,555,818
354.4	Electrical Equipment	1991	20,554	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	10,890	9,664	606,331	538,093	1,144,424	1,130,448
354.4	Structure	2011	77,806	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	13,395	64,411	739,153	3,554,160	4,293,313	4,279,308
360	Process Equipment	2012	185,431	R2.0	45	8.50	19	R2.0019	0.83252	37.46	45.96	0.18494	34,294	151,137	1,576,165	6,946,253	8,522,418	8,344,404
354.4	Piping	2012	15,600	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	2,399	13,201	132,600	729,612	862,212	858,000
354.4	Structure	2012	78,600	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	12,088	66,512	668,100	3,676,122	4,344,222	4,329,000
354.4	Electrical Wiring	2012	36,204	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	5,568	30,636	307,734	1,693,281	2,000,995	1,991,220
			838,826										**310,274**	**528,552**	**17,260,312**	**27,884,501**	**45,164,814**	**44,281,108**
354.4	Structure	1954	350,981	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	298,334	52,647	23,340,223	2,895,592	26,235,815	18,303,944
354.4	Structure	1990	281,180	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	152,624	128,556	8,575,975	7,223,502	15,799,477	15,464,873
354.4	Structure	1981	11,935	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	8,205	3,730	471,440	214,356	685,797	656,436
380	Process Equipment	1990	788,419	R2.0	45	30.50	68	R2.0068	0.4586	20.64	51.14	0.59640	470,213	318,206	24,046,786	16,272,973	40,319,759	35,478,855
354.4	Electrical Wiring	1981	10,847	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	7,456	3,391	428,449	194,609	623,257	596,574
354.4	Electrical Equipment	1981	23,240	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	15,976	7,264	917,995	417,398	1,335,393	1,276,222
354.4	Electrical Equipment	1990	56,600	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	30,723	25,877	1,726,307	1,454,060	3,180,367	3,113,013
354.4	Piping	1995	36,398	R4.0	55	25.50	46	R4.0046	0.54887	30.19	55.69	0.45789	16,665	19,731	928,098	1,098,795	2,026,893	2,001,780
364	Sludge Flow Meter	2001	8,498	S2.0	30	19.50	65	S2.0065	0.42974	12.89	32.39	0.60204	5,115	3,381	165,672	109,513	275,185	254,880
354.4	Structure	2003	8,005	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	2,545	5,460	140,091	300,515	440,606	440,286
380	Process Equipment	2003	212,200	R2.0	45	17.50	39	R2.0039	0.66842	30.08	47.58	0.36780	78,047	134,153	3,713,493	6,382,964	10,096,457	9,548,982
354.4	Piping	2003	210,557	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	66,947	143,610	3,684,744	7,904,302	11,589,046	11,580,624
354.4	Electrical Wiring	2003	56,654	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	18,649	40,005	1,028,438	2,201,856	3,228,294	3,225,948
354.4	Electrical Equipment	2003	42,044	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	13,366	28,676	735,777	1,578,347	2,314,124	2,312,442
354.4	Structure	2008	913,864	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	208,078	705,786	11,423,295	38,747,817	50,171,112	50,262,498
380	Sludge Transfer Pump	2009	52,483	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	13,033	39,450	603,557	1,826,940	2,430,497	2,361,744
380	Digester Recycle pump	2009	52,483	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	13,033	39,450	603,557	1,826,940	2,430,497	2,361,744
380	Digester 3 Transfer Pump Piping	2009	63,000	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	15,645	47,355	724,500	2,193,030	2,917,530	2,835,000
380	Digester 3 Sludge Recycle Piping	2009	34,860	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	8,642	26,158	400,200	1,211,388	1,611,588	1,566,000
380	Digester 3 Rehab	2009	252,000	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	62,579	189,421	2,898,000	8,772,120	11,670,120	11,340,000
380	Digester Mixing System	2009	96,480	R2.0	45	11.50	26	R2.0026	0.77352	34.81	46.31	0.24833	23,959	72,521	1,109,520	3,358,469	4,467,989	4,341,600
380	Process Equipment	2010	210,454	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	47,584	162,870	2,209,763	7,563,702	9,773,465	9,470,412
354.4	Piping	2010	724,138	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	138,042	586,096	7,603,445	32,282,054	39,885,499	39,827,588
354.4	Structure	2010	621,210	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	118,421	502,788	6,522,705	27,693,542	34,216,247	34,166,550
354.4	Electrical Wiring	2010	206,111	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	39,291	166,820	2,164,163	9,188,419	11,352,583	11,336,094
354.4	Electrical Equipment	2010	29,388	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	5,602	23,786	308,574	1,310,117	1,618,691	1,618,340
354.4	HVAC Piping/ductwork	2010	86,912	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	16,568	70,344	912,580	3,874,555	4,787,135	4,780,182
380	Dig. 2 Vaughan Pump Rehab	2013	18,740	R2.0	45	7.50	17	R2.0017	0.84966	38.23	45.73	0.16401	3,074	15,666	140,553	716,445	856,998	843,318
354.4	Valve	2015	26,400	R4.0	55	5.50	10	R4.0010	0.90017	49.51	55.01	0.09998	2,639	25,361	156,200	1,406,084	1,562,284	1,562,000
364	Five Digester Biogas Flow Meters	2015	34,000	S2.0	50	5.50	18	S2.0018	0.82067	24.62	30.12	0.18260	6,208	27,792	187,000	837,080	1,024,080	1,020,000
380	Digester and Sludge Valves	2014	93,320	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	13,215	80,105	606,580	3,676,608	4,283,388	4,199,400
			5,617,337										**1,820,660**	**3,696,657**	**108,475,681**	**194,734,482**	**303,210,173**	**289,147,319**
354.4	Structure	1981	113,878	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	78,283	35,595	4,498,165	2,045,242	6,543,407	6,263,268

S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((43)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
380	Process Equipment	1961	78,314	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	56,542	21,772	3,083,419	1,191,162	4,284,581	3,524,148
354.4	Piping	1961	3,960	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	2,310	1,650	132,720	60,346	193,066	184,800
			195,552										**137,135**	**58,417**	**7,724,304**	**3,296,750**	**11,021,054**	**9,972,216**
354.4	Structure	1981	84,436	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	58,044	26,392	3,335,206	1,516,463	4,851,670	4,643,958
380	Process Equipment	1981	12,504	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	9,028	3,476	493,908	190,186	684,094	562,680
354.4	Piping	1981	23,578	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	16,208	7,370	931,315	423,454	1,354,769	1,296,768
354.4	Electrical Wiring	1981	2,162	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	1,486	676	85,415	38,837	124,252	118,932
354.4	Electrical Equipment	1981	11,050	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	7,596	3,454	436,459	198,451	634,910	607,728
			133,729										**92,362**	**41,367**	**5,282,303**	**2,367,391**	**7,649,695**	**7,230,066**
354.4	Structure	1981	82,528	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	56,732	25,796	3,259,840	1,482,196	4,742,036	4,539,018
380	Process Equipment	1981	362,016	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	261,372	100,644	14,299,632	5,506,263	19,805,895	16,290,720
354.4	Piping	1981	960	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	660	300	37,920	17,242	55,162	52,800
			445,504										**318,764**	**126,740**	**17,597,392**	**7,005,701**	**24,603,093**	**20,882,538**
354.4	5000 Amp Bus	2018	59,326	R4.0	55	2.50	5	R4.0005	0.95006	52.25	54.75	0.04566	2,709	56,617	148,314	3,099,763	3,248,077	3,262,908
354.4	5000 Amp Bus	2016	55,290	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	4,514	50,776	248,803	2,798,204	3,047,007	3,040,925
			114,615										**7,223**	**107,392**	**397,117**	**5,897,967**	**6,295,084**	**6,303,833**
354.4	Electrical Wireing	2020	439,802	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	4,002	435,800	219,901	23,947,241	24,167,142	24,189,132
354.4	Electrical Equipment	2020	1,036,604	R4.0	55	0.50	1	R4.0001	0.99001	54.45	54.95	0.00910	9,433	1,027,171	518,302	56,443,110	56,961,412	57,013,242
			1,476,407										**13,435**	**1,462,972**	**738,203**	**80,390,351**	**81,128,554**	**81,202,374**
354.4	Electrical Wiring	1989	19,409	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	10,873	8,536	611,377	479,980	1,091,357	1,067,484
354.4	Electrical Equipment	1969	275,292	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	154,219	121,073	8,671,698	6,807,971	15,479,669	15,141,060
354.4	Electrical Equipment	1996	3,200	R4.0	55	24.50	45	R4.0045	0.55819	30.7	55.2	0.44384	1,420	1,780	78,410	98,252	176,662	176,022
			297,901										**166,512**	**131,389**	**9,361,485**	**7,386,203**	**16,747,688**	**16,384,566**
354.4	Structure	1991	48,717	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	25,811	22,906	1,437,163	1,275,421	2,712,584	2,679,456
354.4	Structure	1981	30,601	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	21,036	9,565	1,208,747	549,598	1,758,345	1,683,066
380	Process Equipment	1991	48,574	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	28,247	20,327	1,432,948	1,031,235	2,464,181	2,185,850
380	Process Equipment	1981	3,240	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	2,338	901	127,980	49,280	177,260	145,800
354.4	Piping	1991	8,667	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	4,592	4,075	255,666	226,893	482,559	478,665
354.4	Piping	1981	6,436	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	4,424	2,012	254,206	115,583	369,790	353,958
354.4	Electrical Wiring	1991	4,030	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	2,135	1,895	118,898	105,517	224,414	221,674
354.4	Electrical Wiring	1961	536	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	369	167	21,188	9,634	30,822	29,502
354.4	Electrical Equipment	1991	2,556	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	1,354	1,202	75,402	66,916	142,318	140,580
354.4	Electrical Equipment	1981	20,170	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	13,865	6,305	796,699	362,246	1,158,945	1,109,328
380	Process Equipment	2010	35,640	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	8,058	27,582	374,220	1,280,902	1,655,122	1,603,800
354.4	Piping	2010	1,440	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	275	1,165	15,120	64,195	79,315	79,200
354.4	Structure	2010	6,984	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	1,331	5,653	73,332	311,347	384,679	384,120
354.4	Electrical Wiring	2010	2,628	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	501	2,127	27,594	117,156	144,750	144,540
			220,220										**114,337**	**105,883**	**6,219,161**	**5,565,923**	**11,785,084**	**11,237,539**

S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
input	input	input	input	input	input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS input	AUS input	2021-[(43)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables 69 col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Structure	1988	56,400	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	32,575	23,825	1,833,000	1,340,628	3,173,628	3,102,000
380	Process Equipment	2019	52,800	R2.0	45	1.50	3	R2.0003	0.97291	43.78	45.28	0.03313	1,749	51,051	79,200	2,311,584	2,390,784	2,376,000
354.4	Piping	1988	13,200	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	7,624	5,576	429,000	313,764	742,764	726,000
354.4	Electrical Wiring	1988	5,348	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	3,089	2,259	173,823	127,131	300,954	294,162
354.4	Electrical Equipment	1988	1,200	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	693	507	39,000	28,524	67,524	66,000
380	Scum Pump	2014	11,815	R2.0	45	6.50	14	R2.0014	0.8756	39.4	45.9	0.14161	1,673	10,142	76,799	465,519	542,318	531,684
			140,784										**47,403**	**93,381**	**2,630,822**	**4,587,150**	**7,217,972**	**7,095,846**
354.4	Structure	1988	15,600	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	9,010	6,590	507,000	370,812	877,812	858,000
380	Process Equipment	1988	18,000	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	11,256	6,744	585,000	350,460	935,460	810,000
354.4	Piping	1988	8,400	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	4,852	3,548	273,000	199,668	472,668	462,000
354.4	Electric Wiring	1988	3,083	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,781	1,302	100,191	73,278	173,469	169,554
354.4	Electrid Equipment	1988	1,200	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	693	507	39,000	28,524	67,524	66,000
			46,283										**27,592**	**18,691**	**1,504,191**	**1,022,742**	**2,526,933**	**2,365,554**
354.4	Structure	1988	12,000	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	6,931	5,069	390,000	285,240	675,240	660,000
380	Process Equipment	1988	4,800	R2.0	45	32.50	72	R2.0072	0.43275	19.47	51.97	0.62536	3,002	1,798	156,000	93,456	249,456	216,000
380	Gorman Rupp Pump	2002	4,200	R2.0	45	18.50	41	R2.0041	0.65281	28.38	47.88	0.38638	1,623	2,577	77,700	123,396	201,096	189,000
354.4	Electrical Wiring	1988	2,677	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	1,546	1,131	87,009	63,637	150,646	147,246
354.4	Electrical Equipment	1988	1,200	R4.0	55	32.50	59	R4.0059	0.43225	23.77	56.27	0.57757	693	507	39,000	28,524	67,524	66,000
			24,877										**13,795**	**11,082**	**749,709**	**594,253**	**1,543,962**	**1,278,246**
354.4	Structure	1981	97,988	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	67,360	30,628	3,870,542	1,756,872	5,630,413	5,389,362
380	Process Equipment	1981	8,933	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	6,449	2,484	352,846	135,868	488,713	401,976
354.4	Piping	1981	16,326	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	11,223	5,103	644,877	293,215	938,092	897,930
354.4	Electrical Equipment	1981	2,162	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	1,486	676	85,415	38,837	124,252	118,932
			125,410										**86,518**	**38,892**	**4,953,680**	**2,227,792**	**7,181,470**	**6,808,200**
354.4	Structure	1990	269,795	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	157,300	132,493	8,838,680	7,444,777	16,283,457	15,838,604
380	Process Equipment	2019	669,755	R2.0	45	1.50	3	R2.0003	0.97291	43.78	45.28	0.03313	22,189	647,566	1,004,632	29,321,865	30,326,497	30,138,966
354.4	Electrical Wiring	1990	7,492	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	4,066	3,426	228,494	192,459	420,953	412,038
354.4	Electrical Equipment	1990	2,932	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	1,591	1,341	89,414	75,313	164,727	161,238
380	Process Equipment	2010	168,300	R2.0	45	10.50	23	R2.0023	0.79861	35.94	46.44	0.22610	38,059	130,271	1,767,465	6,049,780	7,817,245	7,574,850
354.4	Electrical Wiring	2010	1,820	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	309	1,311	17,010	72,220	89,230	88,100
			1,139,921										**223,514**	**916,407**	**11,945,695**	**43,196,414**	**55,102,109**	**54,314,796**
354.4	Structure	1990	5,576	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	3,027	2,549	170,080	143,258	313,338	306,702
354.4	Piping	1990	233	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	126	107	7,100	5,981	13,081	12,804
354.4	Electrical Wiring	1990	2,281	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	1,238	1,043	69,577	58,604	128,181	125,456
354.4	Structure	2003	79,168	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	25,171	53,997	1,385,433	2,971,952	4,357,385	4,354,218
			87,258										**29,562**	**57,696**	**1,632,190**	**3,179,795**	**4,611,985**	**4,799,180**
354.4	Structure	1954	940	R4.0	55	66.50	121	R4.0121	0.15	8.25	74.75	0.85000	799	141	62,483	7,752	70,235	51,678
354.4	Structure	1991	12,000	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	6,358	5,642	354,000	314,160	668,160	660,000

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((43)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Wiring	1991	2,106	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	1,116	990	62,127	55,135	117,262	115,830
			15,046										8,273	6,773	478,610	377,047	655,557	527,508
354.4	Structure	1981	8,929	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	6,138	2,791	352,703	160,368	513,072	491,106
354.4	Piping	1981	5,112	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	3,514	1,598	201,924	91,812	293,736	281,160
			14,041										9,652	4,389	554,627	252,180	806,808	772,266
354.4	Structure	1981	8,929	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	6,138	2,791	352,703	160,368	513,072	491,106
354.4	Piping	1981	5,112	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	3,514	1,598	201,924	91,812	293,736	281,160
			14,041										9,652	4,389	554,627	252,180	806,808	772,266
354.4	Structure	1981	23,377	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	16,070	7,307	923,399	419,855	1,343,254	1,285,746
380	Process Equipment	1981	7,320	R2.0	45	39.50	88	R2.0088	0.339	15.21	54.71	0.72199	5,285	2,035	289,140	111,337	400,477	329,400
354.4	Piping	1981	34,502	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	23,718	10,784	1,362,845	619,663	1,982,508	1,897,632
			65,200										45,073	20,127	2,575,384	1,150,855	3,726,239	3,512,778
354.4	Structure	1990	137	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	74	63	4,172	3,514	7,687	7,524
364	Flow Meter	1990	6,000	S2.0	30	30.50	102	S2.0102	0.24561	7.37	37.87	0.80539	4,832	1,168	183,000	44,220	227,220	180,000
354.4	Electrical Wiring	1990	758	R4.0	55	30.50	55	R4.0055	0.46712	25.69	56.19	0.54280	412	346	23,131	19,483	42,614	41,712
			6,895										5,318	1,577	210,303	67,217	277,521	229,236
354.4	Structure	1981	18,952	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	13,028	5,924	748,586	340,371	1,088,959	1,042,338
354.4	Piping	1981	17,100	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	11,755	5,345	675,450	307,116	982,566	940,500
354.4	Electrical Wiring	1981	594	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	408	186	23,463	10,668	34,131	32,670
354.4	Electrical Equipment	1981	4,198	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	2,886	1,312	165,805	75,389	241,194	230,868
380	Process Equipment	2004	57,218	R2.0	45	16.50	37	R2.0037	0.68419	30.79	47.29	0.34891	19,964	37,254	944,104	1,761,755	2,705,858	2,574,828
			98,052										48,041	50,021	2,557,410	2,485,299	5,052,708	4,821,204
354.4	Structure	1989	393,145	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	220,240	172,906	12,384,085	9,722,490	22,106,575	21,623,006
394	Process Equipment	1989	182,488	R3.0	20	31.50	158	R3.0158	0.15	3	34.5	0.85000	155,115	27,373	5,748,363	547,463	5,295,826	3,649,754
354.4	Piping	1989	44,863	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	25,132	19,731	1,413,172	1,109,452	2,522,624	2,467,443
354.4	Electrical Wiring	1989	22,840	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	12,795	10,045	719,445	564,822	1,284,267	1,256,174
354.4	Electrical Equipment	1989	7,481	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	4,191	3,290	235,649	185,003	420,652	411,451
394	Lab Dishwasher	1999	7,997	R3.0	20	21.50	108	R3.0108	0.18718	3.34	24.84	0.85000	6,797	1,200	171,931	28,709	198,641	159,936
394	Operator's WEStation	2000	35,915	R3.0	20	20.50	103	R3.0103	0.18808	3.76	24.26	0.84501	30,348	5,567	738,253	135,040	871,293	718,296
394	Fume Hood	2004	4,518	R3.0	20	16.50	83	R3.0083	0.29508	5.9	22.4	0.73661	3,328	1,190	74,547	26,656	101,203	90,360
354.4	Structure (Flooring)	2007	10,368	R4.0	55	13.50	25	R4.0025	0.75124	41.32	54.82	0.24626	2,553	7,815	139,968	428,406	568,374	570,240
394	Spectrophoto (AA)	2007	76,920	R3.0	20	13.50	68	R3.0068	0.3971	7.94	21.44	0.62966	44,655	26,265	957,420	563,105	1,520,525	1,418,400
394	Spectrophoto (PO4)	2007	17,262	R3.0	20	13.50	68	R3.0068	0.3971	7.94	21.44	0.62966	10,869	6,393	233,037	137,060	370,097	345,240
394	Process Equipment	2008	28,033	R3.0	20	12.50	63	R3.0063	0.43441	8.69	21.19	0.58990	16,537	11,496	350,415	243,609	594,024	560,664
394	Laboratory Equipment	2009	18,288	R3.0	20	11.50	58	R3.0058	0.47316	9.46	20.96	0.54866	10,034	8,254	210,312	173,004	383,316	365,760
394	Process Equipment	2009	10,800	R3.0	20	11.50	58	R3.0058	0.47316	9.46	20.96	0.54866	5,926	4,874	124,200	102,168	226,368	216,000
354.4	Piping	2009	1,375	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	288	1,087	15,815	59,807	75,622	75,636
354.4	Structure	2009	580,232	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	117,161	443,071	6,442,668	24,364,490	30,807,158	30,812,760
354.4	Electrical Wiring	2009	45,953	R4.0	55	11.50	21	R4.0021	0.79078	43.49	54.99	0.20913	9,610	36,343	528,457	1,998,487	2,526,944	2,527,404

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmt	Eng Assmt	Eng Assmt	AUS Input	AUS Input	2021-[45]+0.5	Col [49] / [48]	Col [47] & [50]	Lookup Iowa Curves Life Tables @ col [51]	Col [48] * [52]	Col [48] + [53]	Col [53] / [54]	Col [46] * [55]	Col [46] - [56]	Col [46] * [49]	Col [46] * [53]	Col [46] * [54]	Col [46] * [48]
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Electrical Equipment	2009	15,270	R4.0	55	11.50	21	R4.0021	0.79079	43.49	54.99	0.20913	3,193	12,077	175,805	664,092	838,697	839,850
354.4	HVAC Equipment	2009	281,024	R4.0	55	11.50	21	R4.0021	0.79079	43.49	54.99	0.20913	58,771	222,253	3,231,781	12,221,751	15,433,532	15,456,342
354.4	HVAC Piping/Ductwork	2009	131,854	R4.0	55	11.50	21	R4.0021	0.79079	43.49	54.99	0.20913	27,575	104,279	1,516,316	5,734,313	7,250,629	7,251,948
354.4	UV Communication Boards (3)	2014	26,796	R4.0	55	6.50	12	R4.0012	0.88023	48.41	54.91	0.11838	3,172	23,624	174,174	1,297,194	1,471,368	1,473,780
390	Servers for GE Plant Operation Syste	2014	19,091	R3.0	12	6.50	54	R3.0054	0.50513	6.06	12.56	0.51752	9,880	9,211	124,080	115,690	239,780	229,090
390	PI Server and System Upgrades	2014	27,977	R3.0	12	6.50	54	R3.0054	0.50513	6.06	12.56	0.51752	14,479	13,498	181,849	169,539	351,389	335,722
390	PI Server and System Upgrades	2014	13,236	R3.0	12	6.50	54	R3.0054	0.50513	6.06	12.56	0.51752	6,850	6,386	86,034	80,210	166,244	158,832
394	Kjeltec 8200 Distillation Unit	2014	13,146	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	4,228	8,918	85,449	180,232	265,681	282,920
394	Lab Duct Coil	2014	20,376	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	6,553	13,823	132,444	279,355	411,799	407,520
394	Supply and Return Line	2014	15,060	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	4,844	10,216	97,890	206,473	304,363	301,200
394	Wilo pumps (2)	2014	12,118	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	3,897	8,221	78,764	166,132	244,897	242,352
394	Wash Water Pump	2014	6,912	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	2,223	4,689	44,928	94,764	139,692	138,240
394	Wilo Pump (1)	2014	15,028	R3.0	20	6.50	33	R3.0033	0.68563	13.71	20.21	0.32162	4,833	10,195	97,679	206,026	303,708	300,552
394	EAM Software	2015	18,720	R3.0	20	5.50	28	R3.0028	0.73133	14.63	20.13	0.27322	5,115	13,605	102,960	273,874	376,834	374,400
394	6 System Workstation	2015	18,092	R3.0	20	5.50	28	R3.0028	0.73133	14.63	20.13	0.27322	4,943	13,149	99,508	264,692	364,200	361,848
394	Fume Hood	2018	17,420	R3.0	20	2.50	13	R3.0013	0.87314	17.46	19.96	0.12525	2,182	15,238	43,551	304,160	347,711	348,408
354.4	Computer	2016	9,708	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	793	8,915	43,685	491,312	534,997	533,929
354.4	Computer	2016	9,600	R4.0	55	4.50	8	R4.0008	0.92012	50.61	55.11	0.08165	784	8,816	43,200	485,854	529,054	527,998
394	Lab Glassware	2016	17,120	R3.0	20	4.50	23	R3.0023	0.77789	15.56	20.06	0.22433	3,841	13,279	77,042	266,393	343,435	342,408
			2,151,025										**843,735**	**1,307,290**	**35,922,656**	**63,889,629**	**100,812,519**	**97,155,863**
354.4	Structure	1989	15,700	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	8,795	6,905	494,537	388,251	882,789	863,478
364	Process Equipment	1989	4,620	S2.0	30	31.50	105	S2.0105	0.23423	7.03	38.53	0.81754	3,777	843	145,530	32,479	178,009	138,600
364	Flow Meter	2002	4,620	S2.0	30	18.50	62	S2.0062	0.44912	13.47	31.97	0.57867	2,673	1,947	85,470	62,231	147,701	138,600
			24,940										**15,245**	**9,695**	**725,537**	**482,961**	**1,208,499**	**1,140,678**
354.4	Structure	1981	388,810	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	267,279	121,531	15,357,979	6,983,020	22,341,000	21,384,528
354.4	Structure	1991	3,817,826	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	2,022,723	1,795,103	112,625,879	99,950,695	212,576,574	209,960,452
380	Process Equipment	1981	647,624	R2.0	45	39.50	88	R2.0088	0.338	15.21	54.71	0.72199	611,976	235,648	33,481,132	12,892,355	46,373,487	38,143,062
380	Process Equipment	1991	4,046	R2.0	45	29.50	66	R2.0066	0.47183	21.23	50.73	0.58151	2,353	1,693	119,359	85,898	205,258	182,074
354.4	Piping	1991	4,483,065	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	2,364,577	2,098,488	131,660,423	116,843,047	248,503,470	245,468,586
354.4	Electrical Wiring	1981	359,335	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	247,018	112,317	14,193,740	6,453,660	20,647,401	19,763,436
354.4	Electrical Wiring	1991	2,609,763	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	1,382,679	1,227,084	76,988,023	68,323,608	145,311,631	143,536,991
354.4	Electrical Wiring	2002	36,000	R4.0	55	18.50	34	R4.0034	0.65313	36.47	54.97	0.33655	12,116	23,884	668,000	1,312,920	1,978,920	1,980,000
354.4	Electrical Equipment	1981	60,704	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	41,730	18,974	2,397,824	1,090,251	3,488,075	3,338,742
354.4	Piping	1989	128,700	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	72,098	56,602	4,054,050	3,182,751	7,236,801	7,078,500
354.4	Paving	1989	4,854	R4.0	55	31.50	57	R4.0057	0.44956	24.73	56.23	0.56020	2,719	2,135	152,890	120,031	272,920	266,950
354.4	Electrical Equipment	1991	278,309	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	147,451	130,858	8,210,110	7,286,124	15,496,234	15,306,984
354.4	Train 3 Forcemain	2001	363,578	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	127,881	235,697	7,089,779	13,067,008	20,156,786	19,906,812
354.4	Level Sensors	2001	9,570	R4.0	55	19.50	35	R4.0035	0.65344	35.94	55.44	0.35173	3,366	6,204	186,615	343,946	530,561	526,350
354.4	Structure	2003	57,366	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	18,240	39,126	1,003,905	2,153,520	3,157,425	3,155,130
354.4	Piping	2003	38,514	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	12,246	26,268	673,995	1,445,616	2,119,611	2,118,270
354.4	Paving	2003	9,360	R4.0	55	17.50	32	R4.0032	0.68258	37.54	55.04	0.31795	2,976	6,384	163,800	351,374	515,174	514,800
380	Equipment	2003	5,840	R2.0	45	17.50	39	R2.0039	0.66842	30.06	47.56	0.36780	2,074	3,566	93,700	169,651	263,351	253,800
354.4	Paving	2005	42,006	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	11,797	30,209	651,093	1,667,218	2,318,311	2,310,330

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Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((45)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (45) * (55)	Col (46) - (56)	Col (45) * (49)	Col (45) * (53)	Col (45) * (54)	Col (45) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
354.4	Structure	2005	10,092	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	2,834	7,258	156,426	400,551	555,977	555,050
354.4	Electric Equip	2005	4,368	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	1,227	3,141	67,704	173,366	241,070	240,240
354.4	Hot Water Piping	2006	58,800	R4.0	55	14.50	26	R4.0026	0.74138	40.78	55.28	0.26230	15,423	43,377	852,600	2,397,864	3,250,464	3,234,000
380	Process Equipment	2008	45,424	R2.0	45	12.50	28	R2.0028	0.75696	34.06	46.56	0.26547	12,195	33,229	567,795	1,547,128	2,114,923	2,044,062
354.4	Piping	2008	18,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	4,098	13,902	225,000	763,200	988,200	990,000
354.4	Paving	2008	12,000	R4.0	55	12.50	23	R4.0023	0.77099	42.4	54.9	0.22769	2,732	9,268	150,000	508,800	658,800	660,000
394	Isco Samplers	2009	11,904	R3.0	20	11.50	58	R3.0058	0.47315	9.46	20.96	0.54866	6,531	5,373	136,896	112,612	249,508	238,080
354.4	Piping	2010	150,869	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	28,760	122,109	1,584,122	8,725,731	8,309,854	8,297,784
354.4	Paving	2010	123,599	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	23,562	100,037	1,297,787	5,510,035	6,807,822	6,797,934
354.4	Electrical Wiring	2010	155,921	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	29,723	126,198	1,637,168	6,950,949	8,588,118	8,575,644
354.4	Electrical Equipment	2010	28,721	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	5,475	23,246	301,568	1,280,373	1,581,942	1,579,644
354.4	Fencing	2010	52,264	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	9,963	42,301	548,768	2,329,911	2,878,679	2,874,498
354.4	Structure	2011	182,442	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	31,409	151,033	1,733,199	8,333,951	10,067,150	10,034,310
354.4	Piping	2011	343,487	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	59,135	284,352	3,263,125	15,690,477	18,953,602	18,891,774
354.4	Paving	2011	94,184	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	16,215	77,969	894,752	4,302,343	5,197,095	5,180,142
354.4	Electrical Wiring	2011	645,932	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	111,204	534,728	6,136,358	29,506,192	35,642,550	35,526,282
354.4	Electrical Equipment	2011	1,635,600	R4.0	55	9.50	17	R4.0017	0.83047	45.68	55.18	0.17216	281,585	1,354,015	15,538,200	74,714,208	90,252,408	89,858,000
380	Process Piping	2012	43,633	R2.0	45	8.50	19	R2.0019	0.83252	37.46	45.96	0.18494	8,070	35,563	370,882	1,634,500	2,005,382	1,963,494
354.4	Paving	2012	10,800	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	1,670	9,130	92,310	507,922	600,232	597,300
354.4	Electrical Wiring	2012	1,614	R4.0	55	8.50	15	R4.0015	0.85036	46.77	55.27	0.15379	248	1,366	13,719	75,487	89,206	88,770
354.4	HD Network Communcation Gate	2015	6,893	R4.0	55	5.50	10	R4.0010	0.90017	49.51	55.01	0.09998	689	6,204	37,910	341,263	379,173	379,104
380	Trash Pump	2015	10,666	R2.0	45	5.50	12	R2.0012	0.89304	40.19	45.69	0.12038	1,284	9,382	58,661	428,650	487,311	479,952
354.4	Utility Water Heater	2015	17,286	R4.0	55	5.50	10	R4.0010	0.90017	49.51	55.01	0.09998	1,728	15,558	95,073	855,630	950,903	950,730
			17,189,828										**8,009,059**	**9,180,569**	**445,535,319**	**508,814,238**	**954,349,559**	**935,442,801**
354.4	Structure	1991	276,396	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	146,437	129,959	8,153,678	7,236,044	15,389,723	15,201,773
354.4	Electrical Wiring	1991	25,850	R4.0	55	29.50	54	R4.0054	0.47598	26.18	55.68	0.52981	13,696	12,154	762,587	676,763	1,439,350	1,421,772
380	Process Equip	2005	76,570	R2.0	45	15.50	34	R2.0034	0.70812	31.87	47.37	0.32721	25,054	51,516	1,188,829	2,440,273	3,627,102	3,445,632
354.4	Electric Equip	2005	7,800	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	2,191	5,609	120,900	308,582	430,482	429,000
354.4	Electric Wiring	2005	5,062	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	1,422	3,640	78,455	200,895	279,350	278,388
354.4	Piping	2005	1,262	R4.0	55	15.50	28	R4.0028	0.72172	39.69	55.19	0.28085	355	907	19,567	50,105	69,672	69,432
354.4	Electrical Wiring	2010	4,357	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	831	3,526	45,751	194,244	239,995	239,646
354.4	Electrical Equipment	2010	294	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	56	238	3,087	13,107	16,194	16,170
354.4	HVAC Equipment	2010	58,825	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	11,213	47,692	618,710	2,626,868	3,245,578	3,240,864
354.4	HVAC Piping/Ductwork	2010	59,047	R4.0	55	10.50	19	R4.0019	0.81061	44.58	55.08	0.19063	11,256	47,791	619,996	2,632,324	3,252,320	3,247,595
			515,583										**212,531**	**303,032**	**11,609,560**	**16,380,205**	**27,989,768**	**27,590,273**
354.4	Structure	1981	31,045	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	21,341	9,704	1,226,285	557,572	1,783,857	1,707,486
354.4	Process Equipment	1981	12,210	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	8,394	3,816	482,295	219,292	701,587	671,550
354.4	Piping	1981	5,771	R4.0	55	39.50	72	R4.0072	0.32657	17.96	57.46	0.68743	3,967	1,804	227,947	103,644	331,590	317,394
			49,026										**33,702**	**15,324**	**1,936,527**	**880,508**	**2,817,034**	**2,696,430**
391	Pickup 602	2005	18,532	R3.0	15	15.50	103	R3.0103	0.18808	2.82	18.32	0.84607	15,679	2,853	287,245	52,260	339,505	277,979
391	Dump Truck 624	1988	31,360	R3.0	15	34.50	230	R3.0230	0.15	2.25	36.75	0.85000	26,656	4,704	1,081,904	70,559	1,152,463	470,393
391	Stake Body Truck 639	2011	45,137	R3.0	15	9.50	63	R3.0063	0.43441	6.52	16.02	0.59301	27,358	18,778	438,298	300,811	739,109	692,050

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

[43]	[44]	[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[45]+0.5	Col [49] / [48]	Col [47] & [50]	Lookup Iowa Curves Life Tables Eff Col [51]	Col [48] * [52]	Col [48] * [53]	Col [53] / [54]	Col [46] * [55]	Col [46] - [56]	Col [46] * [49]	Col [46] * [53]	Col [46] * [54]	Col [46] * [48]
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
391	Vactor Truck 640	1990	155,456	R3.0	15	30.50	203	R3.0203	0.15	2.25	32.75	0.85000	132,137	23,319	4,741,401	349,775	5,091,176	2,331,836
391	Knuckle Boom Truck 645	1991	116,385	R3.0	15	29.50	197	R3.0197	0.15	2.25	31.75	0.85000	98,927	17,458	3,433,366	261,867	3,695,233	1,745,779
391	Ford 3500 647	2000	34,721	R3.0	15	20.50	137	R3.0137	0.15	2.25	22.75	0.85000	29,513	5,208	711,777	78,122	789,899	520,813
391	Trailer 208	1987	2,274	R3.0	15	33.50	223	R3.0223	0.15	2.25	35.75	0.85000	1,932	342	76,182	5,115	81,278	34,103
391	Ford E-350 212	2002	31,197	R3.0	15	18.50	123	R3.0123	0.15	2.25	20.75	0.85000	26,518	4,679	577,153	70,194	647,347	467,962
			436,061										**358,721**	**77,340**	**11,347,306**	**1,166,703**	**12,536,010**	**6,540,915**
			121,437,327										**45,992,744**	**75,444,583**	**2,530,253,542**	**3,944,623,492**	**6,474,877,025**	**6,288,451,338**
363	Sanitary Sewer Service Connection -	2019	81,528	R3.0	50	1.50	3	R3.0003	0.9765	48.53	50.03	0.02998	2,444	79,084	122,292	3,956,554	4,078,846	4,076,400
363	Sanitary Sewer Service Connection -	2015	123,763	R3.0	50	5.50	11	R3.0011	0.89247	44.62	50.12	0.10974	13,582	110,181	680,698	5,522,314	6,203,012	6,188,160
363	Sanitary Sewer Service Connection -	2011	26,100	R3.0	50	9.50	19	R3.0019	0.81568	40.78	50.28	0.18894	4,931	21,169	247,950	1,064,358	1,312,308	1,305,000
363	Sanitary Sewer Service Connection -	2009	62,832	R3.0	50	11.50	23	R3.0023	0.77789	38.89	50.39	0.22822	14,340	48,492	722,568	2,443,536	3,166,104	3,141,600
363	Sanitary Sewer Service Connection	2008	13,207	R3.0	50	12.50	25	R3.0025	0.75917	37.98	50.46	0.24772	3,272	9,935	165,086	501,333	666,419	660,344
363	Sanitary Sewer Service Connection	2004	9,892	R3.0	50	16.50	33	R3.0033	0.66563	34.28	50.78	0.32493	3,149	6,543	159,923	332,252	492,176	484,816
363	Sanitary Sewer Service Connection	2003	167,178	R3.0	50	17.50	35	R3.0035	0.66761	33.38	50.88	0.34395	57,501	109,677	2,925,618	5,580,407	8,506,025	8,358,908
363	Sanitary Sewer Service Connection	2002	28,203	R3.0	50	18.50	37	R3.0037	0.64975	32.49	50.99	0.36282	10,233	17,970	521,761	916,325	1,438,085	1,410,164
363	Sanitary Sewer Service Connection -	2001	25,922	R3.0	50	19.50	39	R3.0039	0.63205	31.6	51.1	0.38160	9,892	16,030	505,479	819,135	1,324,614	1,296,100
363	Sanitary Sewer Service Connection	1999	31,640	R3.0	50	21.50	43	R3.0043	0.59718	29.86	51.36	0.41661	13,245	18,395	680,250	944,756	1,625,006	1,581,976
363	Sanitary Sewer Service Connection	1998	20,161	R3.0	50	22.50	45	R3.0045	0.58001	29	51.5	0.43689	8,808	11,353	453,625	584,672	1,038,296	1,008,055
363	Sanitary Sewer Service Connection	1996	8,932	R3.0	50	24.50	49	R3.0049	0.54624	27.31	51.81	0.47288	4,224	4,708	218,827	243,926	462,753	446,587
363	Sanitary Sewer Service Connection	1993	29,572	R3.0	50	27.50	55	R3.0055	0.49706	24.85	52.35	0.52531	15,534	14,038	813,227	734,661	1,548,088	1,478,594
363	Sanitary Sewer Service Connection	1992	40,744	R3.0	50	28.50	57	R3.0057	0.48107	24.05	52.55	0.54234	22,097	18,647	1,161,218	979,905	2,141,122	2,037,224
363	Sanitary Sewer Service Connection	1989	2,096	R3.0	50	31.50	63	R3.0063	0.43441	21.72	53.22	0.59188	1,240	856	66,010	45,516	111,526	104,778
363	Sanitary Sewer Service Connection	1988	5,130	R3.0	50	32.50	65	R3.0065	0.41931	20.97	53.47	0.60782	3,118	2,012	166,723	107,575	274,298	256,498
363	Sanitary Sewer Service Connection	1987	4,001	R3.0	50	33.50	67	R3.0067	0.40445	20.22	53.72	0.62360	2,495	1,506	134,045	80,907	214,952	200,067
363	Sanitary Sewer Service Connection -	1983	12,923	R3.0	50	37.50	75	R3.0075	0.34751	17.38	54.88	0.68331	8,830	4,093	484,606	224,598	709,203	646,140
363	Sanitary Sewer Service Connection -	1983	123,701	R3.0	50	37.50	75	R3.0075	0.34751	17.38	54.88	0.68331	84,525	39,175	4,638,789	2,149,924	6,788,713	6,185,052
363	Sanitary Sewer Service Connection	1980	173,443	R3.0	50	40.50	81	R3.0081	0.30773	15.39	55.89	0.72484	125,683	47,760	7,024,427	2,669,282	9,693,709	8,672,132
363	Sanitary Sewer Service Connection	1979	2,727	R3.0	50	41.50	83	R3.0083	0.29568	14.75	56.25	0.73778	2,012	715	113,179	40,226	153,405	136,360
363	Sanitary Sewer Service Connection	1971	7,179	R3.0	50	49.50	99	R3.0099	0.20649	10.32	59.82	0.82748	5,940	1,239	355,360	74,087	429,447	358,949
363	Sanitary Sewer Service Connection	1965	2,645	R3.0	50	55.50	111	R3.0111	0.15571	7.79	63.29	0.85000	2,249	396	146,623	20,608	167,431	132,273
363	Sanitary Sewer Service Connection	1963	3,887	R3.0	50	57.50	115	R3.0115	0.15	7.5	65	0.85000	3,304	583	223,485	29,150	252,635	194,335
363	Sanitary Sewer Service Connection	1962	6,929	R3.0	50	58.50	117	R3.0117	0.15	7.5	66	0.85000	5,890	1,039	405,361	51,969	457,330	346,462
363	Sanitary Sewer Service Connection	1961	5,192	R3.0	50	59.50	119	R3.0119	0.15	7.5	67	0.85000	4,413	779	308,934	38,941	347,875	259,606
363	Sanitary Sewer Service Connection	1958	6,721	R3.0	50	62.50	125	R3.0125	0.15	7.5	70	0.85000	5,713	1,008	420,037	50,404	470,441	336,030
363	Sanitary Sewer Service Connection	1957	7,726	R3.0	50	63.50	127	R3.0127	0.15	7.5	71	0.85000	6,567	1,159	490,582	57,943	548,525	386,285
363	Sanitary Sewer Service Connection	1956	8,327	R3.0	50	64.50	129	R3.0129	0.15	7.5	72	0.85000	7,078	1,249	537,085	62,452	599,537	416,345
363	Sanitary Sewer Service Connection	1955	13,786	R3.0	50	65.50	131	R3.0131	0.15	7.5	73	0.85000	11,718	2,068	902,972	103,394	1,006,366	689,292
363	Sanitary Sewer Service Connection	1954	37,071	R3.0	50	66.50	133	R3.0133	0.15	7.5	74	0.85000	31,510	5,561	2,465,221	278,032	2,743,253	1,853,550
363	Sanitary Sewer Service Connection	1953	166,193	R3.0	50	67.50	135	R3.0135	0.15	7.5	75	0.85000	141,264	24,929	11,218,015	1,246,446	12,464,461	8,309,641
363	Sanitary Sewer Service Connection	1952	1,163	R3.0	50	68.50	137	R3.0137	0.15	7.5	76	0.85000	988	175	79,643	8,720	88,363	58,134
363	Sanitary Sewer Service Connection	1951	2,096	R3.0	50	69.50	139	R3.0139	0.15	7.5	77	0.85000	1,781	315	145,659	15,719	161,377	104,790
363	Sanitary Sewer Service Connection	1950	3,705	R3.0	50	70.50	141	R3.0141	0.15	7.5	78	0.85000	3,149	556	261,222	27,790	289,012	185,264
363	Sanitary Sewer Service Connection	1949	975	R3.0	50	71.50	143	R3.0143	0.15	7.5	79	0.85000	828	147	69,690	7,310	77,000	48,734

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) * (53)	Col (53) / (54)	Col (48) * (56)	Col (48) - (56)	Col (46) * (49)	Col (46) * (53)	Col (46) * (54)	Col (46) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
363	Sanitary Sewer Service Connection	1948	837	R3.0	50	72.50	145	R3.0145	0.15	7.5	80	0.85000	712	125	60,706	6,280	86,586	41,866
363	Sanitary Sewer Service Connection	1947	8,720	R3.0	50	73.50	147	R3.0147	0.15	7.5	81	0.85000	7,412	1,308	540,946	65,403	706,348	436,016
363	Sanitary Sewer Service Connection	1946	9,427	R3.0	50	74.50	149	R3.0149	0.15	7.5	82	0.85000	8,013	1,414	702,267	70,700	772,887	471,334
363	Sanitary Sewer Service Connection	1945	2,028	R3.0	50	75.50	151	R3.0151	0.15	7.5	83	0.85000	1,724	304	153,108	15,209	168,317	101,396
363	Sanitary Sewer Service Connection	1944	2,512	R3.0	50	76.50	153	R3.0153	0.15	7.5	84	0.85000	2,135	377	192,148	18,838	210,886	125,587
363	Sanitary Sewer Service Connection	1943	535,817	R3.0	50	77.50	155	R3.0155	0.15	7.5	85	0.85000	455,445	80,372	41,525,850	4,016,631	45,544,481	26,790,871
363	Sanitary Sewer Service Connection	1942	7,332	R3.0	50	78.50	157	R3.0157	0.15	7.5	86	0.85000	6,232	1,100	575,527	54,987	630,513	366,576
363	Sanitary Sewer Service Connection	1941	586	R3.0	50	79.50	159	R3.0159	0.15	7.5	87	0.85000	498	88	46,568	4,393	50,981	29,288
363	Sanitary Sewer Service Connection	1940	2,747	R3.0	50	80.50	161	R3.0161	0.15	7.5	88	0.85000	2,335	412	221,148	20,604	241,752	137,359
363	Sanitary Sewer Service Connection	1939	7,019	R3.0	50	81.50	163	R3.0163	0.15	7.5	89	0.85000	5,966	1,053	572,061	52,644	624,704	350,958
363	Sanitary Sewer Service Connection	1938	10,180	R3.0	50	82.50	165	R3.0165	0.15	7.5	90	0.85000	8,653	1,527	839,686	76,353	916,240	509,022
363	Sanitary Sewer Service Connection	1937	8,604	R3.0	50	83.50	167	R3.0167	0.15	7.5	91	0.85000	8,163	1,441	801,914	72,028	873,942	480,188
363	Sanitary Sewer Service Connection	1936	18,568	R3.0	50	84.50	169	R3.0169	0.15	7.5	92	0.85000	15,783	2,785	1,568,973	139,258	1,708,231	926,387
363	Sanitary Sewer Service Connection	1935	5,829	R3.0	50	85.50	171	R3.0171	0.15	7.5	93	0.85000	4,955	874	496,419	43,721	542,140	291,473
363	Sanitary Sewer Service Connection	1934	1,439	R3.0	50	86.50	173	R3.0173	0.15	7.5	94	0.85000	1,223	216	124,432	10,789	135,221	71,926
363	Sanitary Sewer Service Connection	1933	347	R3.0	50	87.50	175	R3.0175	0.15	7.5	95	0.85000	295	52	30,395	2,605	33,000	17,369
363	Sanitary Sewer Service Connection	1932	5,917	R3.0	50	88.50	177	R3.0177	0.15	7.5	96	0.85000	5,030	887	523,663	44,378	568,042	295,855
363	Sanitary Sewer Service Connection	1931	14,301	R3.0	50	89.50	179	R3.0179	0.15	7.5	97	0.85000	12,156	2,145	1,279,917	107,256	1,387,173	715,038
363	Sanitary Sewer Service Connection	1930	23,474	R3.0	50	90.50	181	R3.0181	0.15	7.5	98	0.85000	20,293	3,581	2,160,606	179,056	2,338,882	1,193,705
363	Sanitary Sewer Service Connection	1928	3,901	R3.0	50	92.50	185	R3.0185	0.15	7.5	100	0.85000	3,316	585	360,820	29,258	390,078	195,038
363	Sanitary Sewer Service Connection	1927	10,196	R3.0	50	93.50	187	R3.0187	0.15	7.5	101	0.85000	8,668	1,530	953,315	76,469	1,029,784	509,794
363	Sanitary Sewer Service Connection	1926	34,379	R3.0	50	94.50	189	R3.0189	0.15	7.5	102	0.85000	29,222	5,157	3,248,835	257,844	3,506,679	1,718,961
363	Sanitary Sewer Service Connection	1925	50,663	R3.0	50	95.50	191	R3.0191	0.15	7.5	103	0.85000	43,063	7,600	4,838,309	379,972	5,218,281	2,533,146
363	Sanitary Sewer Service Connection	1924	1,318	R3.0	50	96.50	193	R3.0193	0.15	7.5	104	0.85000	1,120	198	127,183	9,885	137,068	65,898
363	Sanitary Sewer Service Connection	1922	237	R3.0	50	98.50	197	R3.0197	0.15	7.5	106	0.85000	201	35	23,347	1,778	25,125	11,852
363	Sanitary Sewer Service Connection	1921	92	R3.0	50	99.50	199	R3.0199	0.15	7.5	107	0.85000	78	14	9,126	688	9,814	4,586
363	Sanitary Sewer Service Connection	1919	564	R3.0	50	101.50	203	R3.0203	0.15	7.5	109	0.85000	497	87	59,317	4,383	63,700	29,220
363	Sanitary Sewer Service Connection	1917	2,548	R3.0	50	103.50	207	R3.0207	0.15	7.5	111	0.85000	2,166	382	263,701	19,109	282,810	127,392
363	Sanitary Sewer Service Connection	1916	502	R3.0	50	104.50	209	R3.0209	0.15	7.5	112	0.85000	426	76	52,434	3,763	56,197	25,088
363	Sanitary Sewer Service Connection	1904	1,298	R3.0	50	116.50	233	R3.0233	0.15	7.5	124	0.85000	1,104	195	151,374	9,745	161,119	64,968
			2,039,892										**1,300,430**	**739,462**	**102,642,703**	**37,811,352**	**140,454,052**	**101,994,609**
361.7	Manholes - Manchester Interceptor	2019	70,200	S2.0	75	1.50	2	S2.0002	0.98	73.5	75	0.02000	1,404	68,796	105,300	5,159,700	5,265,000	5,265,000
361.7	Manholes - Fireside Sewer Replacem	2018	59,820	S2.0	75	2.50	3	S2.0003	0.97	72.75	75.25	0.03322	1,987	57,833	149,550	4,351,905	4,501,455	4,486,500
361.7	Manholes - 2015 Sewer Improvement	2015	28,318	S2.0	75	5.50	7	S2.0007	0.93001	69.75	75.25	0.07309	2,070	26,248	155,747	1,975,153	2,130,899	2,123,820
361.7	Manholes - Poorhouse Run Interceptc	2011	484,440	S2.0	75	9.50	13	S2.0013	0.87016	65.26	74.76	0.12707	61,535	422,882	4,602,180	31,614,554	36,216,734	36,333,000
361.7	Manholes - Arch Street Interceptor	2011	37,260	S2.0	75	9.50	13	S2.0013	0.87016	65.26	74.76	0.12707	4,735	32,525	353,970	2,431,588	2,785,558	2,794,500
361.7	Manholes - Willis Run Siphon Chamb	2011	635,400	S2.0	75	9.50	13	S2.0013	0.87016	65.26	74.76	0.12707	80,740	554,660	6,036,300	41,466,204	47,502,504	47,655,000
361.7	Manholes - Northwest Triangle	2009	57,300	S2.0	75	11.50	15	S2.0015	0.85031	63.77	75.27	0.15278	8,754	48,546	655,950	3,854,021	4,312,971	4,297,500
361.7	Manholes	2008	58,316	S2.0	75	12.50	17	S2.0017	0.83052	62.29	74.79	0.16713	9,746	48,570	728,951	3,692,509	4,361,460	4,373,707
361.7	Manholes	2004	37,448	S2.0	75	16.50	22	S2.0022	0.78155	58.62	75.12	0.21965	8,225	29,223	617,885	2,195,176	2,813,061	2,808,567
361.7	Manholes	2003	281,854	S2.0	75	17.50	23	S2.0023	0.77186	57.89	75.39	0.23213	65,427	216,427	4,932,447	16,316,533	21,248,980	21,138,057
361.7	Manholes	2002	160,583	S2.0	75	18.50	25	S2.0025	0.75261	56.45	74.95	0.24683	39,637	120,946	2,970,791	9,064,926	12,035,717	12,043,746
361.7	Manholes - Roosevelt Ave Wills Run	2001	44,513	S2.0	75	19.50	26	S2.0026	0.74308	55.73	75.23	0.25921	11,538	32,975	867,994	2,480,682	3,348,676	3,338,438
361.7	Manholes	1999	85,039	S2.0	75	21.50	29	S2.0029	0.71472	53.6	75.1	0.28628	24,345	60,694	1,828,339	4,558,092	6,386,431	6,377,927

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

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Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-((45)+0.5)	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
361.7	Manholes	1998	135,018	S2.0	75	22.50	30	S2.0030	0.70539	52.9	75.4	0.29841	40,291	94,727	3,037,910	7,142,465	10,180,375	10,126,368
361.7	Manholes	1996	98,597	S2.0	75	24.50	33	S2.0033	0.67778	50.83	75.33	0.32524	32,066	66,529	2,415,627	5,011,666	7,427,312	7,394,775
361.7	Manholes - Upper Codorus	1993	9,140	S2.0	75	27.50	37	S2.0037	0.64197	48.15	75.65	0.36352	3,323	5,817	251,361	440,110	691,471	685,530
361.7	Manholes	1993	73,123	S2.0	75	27.50	37	S2.0037	0.64197	48.15	75.65	0.36352	26,582	46,541	2,010,887	3,520,881	5,531,769	5,484,239
361.7	Manholes - Upper Codorus	1992	183,659	S2.0	75	28.50	38	S2.0038	0.6332	47.49	75.99	0.37505	68,881	114,778	5,234,277	8,721,958	13,956,235	13,774,413
361.7	Manholes - Upper Codorus	1992	43,728	S2.0	75	28.50	38	S2.0038	0.6332	47.49	75.99	0.37505	16,400	27,328	1,246,257	2,076,657	3,322,914	3,279,623
361.7	Manholes	1989	16,193	S2.0	75	31.50	42	S2.0042	0.59837	44.92	76.42	0.41220	6,675	9,518	510,082	727,393	1,237,474	1,214,480
361.7	Manholes	1988	39,641	S2.0	75	32.50	43	S2.0043	0.58052	44.3	76.8	0.42318	16,775	22,866	1,288,318	1,756,077	3,044,395	2,973,042
361.7	Manholes	1987	15,460	S2.0	75	33.50	45	S2.0045	0.57419	43.06	76.56	0.43757	6,765	8,695	517,901	665,696	1,183,597	1,159,480
361.7	Manholes - Tyler Run	1983	221,134	S2.0	75	37.50	50	S2.0050	0.53457	40.1	77.6	0.48325	106,863	114,271	8,292,543	8,867,493	17,160,036	16,585,085
361.7	Manholes - Codorus Creek	1983	406,602	S2.0	75	37.50	50	S2.0050	0.53457	40.1	77.6	0.48325	196,490	210,112	15,247,579	16,304,744	31,552,323	30,495,158
361.7	Manholes	1980	721,230	S2.0	75	40.50	54	S2.0054	0.5047	37.85	76.35	0.51691	372,811	348,419	29,209,817	27,298,557	56,508,374	54,092,253
361.7	Manholes	1979	21,074	S2.0	75	41.50	55	S2.0055	0.49743	37.31	76.81	0.52658	11,097	9,977	874,562	786,263	1,660,825	1,580,534
361.7	Manholes	1971	5,547	S2.0	75	49.50	66	S2.0066	0.42346	31.76	81.26	0.60916	3,379	2,168	274,596	176,185	450,782	416,055
361.7	Manholes	1965	6,814	S2.0	75	55.50	74	S2.0074	0.37614	28.21	83.71	0.66300	4,518	2,296	378,181	192,225	570,406	511,055
361.7	Manholes	1963	15,807	S2.0	75	57.50	77	S2.0077	0.35989	26.98	84.48	0.68083	10,759	5,048	908,908	426,476	1,335,384	1,185,533
361.7	Manholes	1962	16,628	S2.0	75	58.50	78	S2.0078	0.35436	26.58	85.08	0.68759	11,571	5,257	984,447	447,292	1,431,740	1,262,112
361.7	Manholes	1961	28,233	S2.0	75	59.50	79	S2.0079	0.3491	26.18	85.68	0.69444	19,606	8,627	1,679,882	739,153	2,419,045	2,117,511
361.7	Manholes	1958	19,974	S2.0	75	62.50	83	S2.0083	0.32876	24.66	87.16	0.71707	14,323	5,651	1,248,362	492,554	1,740,916	1,496,034
361.7	Manholes	1957	12,702	S2.0	75	63.50	85	S2.0085	0.31899	23.92	87.42	0.72638	9,226	3,476	808,566	303,828	1,110,393	952,637
361.7	Manholes	1956	24,281	S2.0	75	64.50	86	S2.0086	0.31421	23.57	88.07	0.73237	17,783	6,498	1,566,114	572,299	2,138,413	1,821,062
361.7	Manholes	1955	39,369	S2.0	75	65.50	87	S2.0087	0.30949	23.21	88.71	0.73836	29,068	10,301	2,578,645	913,746	3,492,390	2,952,647
361.7	Manholes	1954	98,057	S2.0	75	66.50	89	S2.0089	0.30023	22.52	88.02	0.74702	73,250	24,807	6,520,767	2,208,236	8,729,003	7,354,249
361.7	Manholes	1953	196,843	S2.0	75	67.50	90	S2.0090	0.2957	22.18	88.68	0.75268	148,150	48,693	13,268,911	4,366,980	17,652,891	14,763,234
361.7	Manholes	1952	3,993	S2.0	75	68.50	91	S2.0091	0.29122	21.84	90.34	0.75825	3,028	965	273,521	87,207	360,728	299,475
361.7	Manholes	1951	7,621	S2.0	75	69.30	93	S2.0093	0.28244	21.18	90.68	0.76643	5,841	1,780	529,666	161,415	691,080	571,582
361.7	Manholes	1950	14,316	S2.0	75	70.50	94	S2.0094	0.27814	20.86	91.36	0.77167	11,047	3,269	1,009,288	298,629	1,307,897	1,073,690
361.7	Manholes	1949	2,511	S2.0	75	71.50	95	S2.0095	0.27389	20.54	92.04	0.77684	1,950	561	179,504	51,666	231,070	188,291
361.7	Manholes	1948	3,235	S2.0	75	72.50	97	S2.0097	0.26556	19.92	92.42	0.78446	2,538	697	234,545	64,443	298,988	242,633
361.7	Manholes	1947	15,216	S2.0	75	73.50	98	S2.0098	0.26147	19.61	93.11	0.78939	12,011	3,205	1,118,366	298,383	1,416,750	1,141,190
361.7	Manholes	1946	16,390	S2.0	75	74.50	99	S2.0099	0.25743	19.31	93.81	0.79416	13,016	3,374	1,221,022	316,482	1,537,505	1,229,217
361.7	Manholes	1945	2,702	S2.0	75	75.50	101	S2.0101	0.2495	18.71	94.21	0.80140	2,165	537	203,984	50,550	254,534	202,633
361.7	Manholes	1944	3,147	S2.0	75	76.50	102	S2.0102	0.24561	18.42	94.92	0.80694	2,537	610	240,775	57,975	298,749	236,054
361.7	Manholes	1943	542,354	S2.0	75	77.50	103	S2.0103	0.24177	18.13	95.63	0.81042	439,534	102,820	42,032,410	9,832,872	51,865,282	40,676,526
361.7	Manholes	1942	15,979	S2.0	75	78.50	105	S2.0105	0.23423	17.57	96.07	0.81711	13,057	2,922	1,254,354	280,752	1,535,105	1,198,427
361.7	Manholes	1941	1,358	S2.0	75	79.50	106	S2.0106	0.23052	17.29	96.79	0.82137	1,115	243	107,953	23,478	131,431	101,843
361.7	Manholes	1940	7,642	S2.0	75	80.50	107	S2.0107	0.22686	17.01	97.51	0.82556	6,309	1,333	615,192	129,993	745,185	573,161
361.7	Manholes	1939	13,663	S2.0	75	81.50	109	S2.0109	0.21967	16.48	97.98	0.83180	11,365	2,298	1,113,553	225,170	1,338,723	1,024,742
361.7	Manholes	1938	17,804	S2.0	75	82.50	110	S2.0110	0.21614	16.21	98.71	0.83578	14,880	2,924	1,468,797	288,596	1,757,393	1,335,270
361.7	Manholes	1937	17,728	S2.0	75	83.50	111	S2.0111	0.21264	15.95	99.45	0.83962	14,885	2,843	1,480,301	282,764	1,763,066	1,329,612
361.7	Manholes	1936	24,214	S2.0	75	84.50	113	S2.0113	0.20578	15.43	99.93	0.84559	20,475	3,739	2,046,097	373,624	2,419,721	1,816,062
361.7	Manholes	1935	6,533	S2.0	75	85.50	114	S2.0114	0.2024	15.18	100.68	0.84923	5,548	985	558,603	99,177	657,780	490,003
361.7	Manholes	1934	2,432	S2.0	75	86.50	115	S2.0115	0.19907	14.93	101.43	0.85000	2,067	365	210,333	36,304	246,636	182,368
361.7	Manholes	1933	895	S2.0	75	87.50	117	S2.0117	0.1925	14.44	101.94	0.85000	761	134	76,290	12,920	91,210	67,106
361.7	Manholes	1932	3,305	S2.0	75	88.50	118	S2.0118	0.18927	14.2	102.7	0.85000	2,809	496	292,517	48,935	339,452	247,896

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(40)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (49) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (49) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
361.7 Manholes		1931	18,418	S2.0	75	88.50	119	S2.0119	0.18608	13.96	103.46	0.85000	15,655	2,763	1,846,379	257,110	1,905,489	1,381,323
361.7 Manholes		1930	28,491	S2.0	75	90.50	121	S2.0121	0.1798	13.49	103.99	0.85000	24,218	4,273	2,578,470	384,349	2,962,819	2,136,854
361.7 Manholes		1928	5,447	S2.0	75	92.50	123	S2.0123	0.17364	13.02	105.52	0.85000	4,630	817	503,885	70,925	574,810	406,555
361.7 Manholes		1927	7,951	S2.0	75	93.50	125	S2.0125	0.16762	12.57	106.07	0.85000	6,758	1,193	743,411	99,543	843,354	596,319
361.7 Manholes		1926	36,856	S2.0	75	94.50	126	S2.0126	0.16465	12.35	106.85	0.85000	31,328	5,528	3,482,923	455,176	3,938,099	2,784,225
361.7 Manholes		1925	36,316	S2.0	75	95.30	127	S2.0127	0.16111	12.13	107.63	0.85000	30,869	5,447	3,466,175	440,513	3,908,689	2,723,899
361.7 Manholes		1924	754	S2.0	75	96.50	129	S2.0129	0.15562	11.69	108.19	0.85000	641	113	72,799	8,819	81,617	56,579
361.7 Manholes		1921	1,063	S2.0	75	99.50	133	S2.0133	0.15	11.25	110.75	0.85000	904	159	105,784	11,981	117,745	79,737
361.7 Manholes		1917	2,858	S2.0	75	103.50	138	S2.0138	0.15	11.25	114.75	0.85000	2,429	429	295,794	32,151	327,945	214,343
361.7 Manholes		1916	456	S2.0	75	104.50	139	S2.0139	0.15	11.25	115.75	0.85000	388	68	47,667	5,132	52,798	34,211
361.7 Manholes		1912	340	S2.0	75	108.50	145	S2.0145	0.15	11.25	119.75	0.85000	289	51	36,928	3,829	40,757	25,526
			5,351,534										**2,271,877**	**3,079,657**	**193,832,181**	**237,848,140**	**431,480,316**	**401,365,025**
361 Sanitary Sewers - Fireside Sewer Re		2019	336,232	R2.5	80	1.50	2	R2.5002	0.98112	78.49	79.99	0.01875	6,304	329,928	504,347	28,390,822	26,895,170	26,898,532
361 Sanitary Sewers - Fireside Sewer Re		2019	131,927	R2.5	80	1.50	2	R2.5002	0.98112	78.49	79.99	0.01875	2,474	129,453	197,890	10,354,931	10,552,821	10,554,140
361 Sanitary Sewers - Manchester Interce		2019	3,005,108	R2.5	80	1.50	2	R2.5002	0.98112	78.49	79.99	0.01875	56,346	2,948,762	4,507,663	235,870,958	240,378,621	240,406,672
361 Sanitary Sewer - 2015 Sewer Improv		2015	265,807	R2.5	80	5.50	7	R2.5007	0.93424	74.74	80.24	0.06854	18,218	247,589	1,461,940	19,886,430	21,328,370	21,264,576
361 Sanitary Sewers - Poorhouse Run Re		2011	275,730	R2.5	80	9.50	12	R2.5012	0.88789	71.03	80.53	0.11797	32,526	243,202	2,619,436	19,585,109	22,204,545	22,058,406
361 Sanitary Sewers - Arch Street Interce		2011	375,426	R2.5	80	9.50	12	R2.5012	0.88789	71.03	80.53	0.11797	44,289	331,137	3,566,547	26,666,509	30,233,056	30,034,080
361 Sanitary Sewers - Poorhouse Run Re		2011	1,188,578	R2.5	80	9.50	12	R2.5012	0.88789	71.03	80.53	0.11797	140,335	1,049,243	11,300,995	84,495,754	95,796,749	95,166,273
361 Sanitary Sewers - Poorhouse Run Re		2011	88,475	R2.5	80	9.50	12	R2.5012	0.88789	71.03	80.53	0.11797	11,617	86,858	935,513	6,994,681	7,930,194	7,878,002
361 Sanitary Sewers - Poorhouse Run Re		2011	173,316	R2.5	80	9.50	12	R2.5012	0.88789	71.03	80.53	0.11797	20,446	152,870	1,646,503	12,310,640	13,957,142	13,865,285
361 Sanitary Sewer - North West Triangle		2009	267,442	R2.5	80	11.50	14	R2.5014	0.86951	69.56	81.06	0.14187	37,942	229,500	3,075,578	18,603,236	21,678,814	21,395,326
361 Sanitary Sewer - North West Triangle		2009	430,711	R2.5	80	11.50	14	R2.5014	0.86951	69.56	81.06	0.14187	61,105	369,606	4,953,178	29,960,269	34,913,447	34,456,894
361 Sanitary Sewer - North West Triangle		2009	142,235	R2.5	80	11.50	14	R2.5014	0.86951	69.56	81.06	0.14187	20,179	122,056	1,635,701	9,893,856	11,529,557	11,378,788
361 Sanitary Sewers		2004	17,802	R2.5	80	16.50	21	R2.5021	0.80602	64.48	80.98	0.20375	3,627	14,175	293,725	1,147,841	1,441,565	1,424,120
361 Sanitary Sewers		2003	5,608	R2.5	80	17.50	22	R2.5022	0.79706	63.76	81.26	0.21536	1,208	4,400	98,133	357,539	455,872	448,606
361 Sanitary Sewers - Arch Street Interce		2003	53,350	R2.5	80	17.50	22	R2.5022	0.79706	63.76	81.26	0.21536	11,490	41,860	933,630	3,401,613	4,335,242	4,268,021
361 Sanitary Sewers - Arch Street Interce		2003	200,369	R2.5	80	17.50	22	R2.5022	0.79706	63.76	81.26	0.21536	43,152	157,217	3,506,465	12,775,555	16,282,021	16,029,555
361 Sanitary Sewers - Arch Street Interce		2003	285,805	R2.5	80	17.50	22	R2.5022	0.79706	63.76	81.26	0.21536	61,508	224,097	4,998,084	18,210,162	23,208,246	22,848,384
361 Sanitary Sewers - Arch Street Interce		2003	289,954	R2.5	80	17.50	22	R2.5022	0.79706	63.76	81.26	0.21536	62,445	227,509	5,074,189	18,487,480	23,561,679	23,196,337
361 Sanitary Sewers		2002	17,431	R2.5	80	18.50	23	R2.5023	0.78813	63.05	81.55	0.22685	3,954	13,477	322,482	1,099,052	1,421,534	1,394,515
361 Sanitary Sewers		2002	53,366	R2.5	80	18.50	23	R2.5023	0.78813	63.05	81.55	0.22685	12,106	41,260	987,265	3,364,707	4,351,973	4,269,256
361 Sanitary Sewers		2002	97,473	R2.5	80	18.50	23	R2.5023	0.78813	63.05	81.55	0.22685	22,112	75,361	1,803,254	6,145,684	7,948,938	7,797,854
361 Sanitary Sewers - Richland Ave Point		2002	20,900	R2.5	80	18.50	23	R2.5023	0.78813	63.05	81.55	0.22685	4,741	16,159	386,650	1,317,745	1,704,395	1,672,000
361 Sanitary Sewers - Roosevelt Ave Will		2001	88,532	R2.5	80	19.50	24	R2.5024	0.77923	62.34	81.84	0.23827	21,094	67,438	1,726,365	5,519,056	7,245,420	7,082,522
361 Sanitary Sewers - Roosevelt Ave Will		2001	163,150	R2.5	80	19.50	24	R2.5024	0.77923	62.34	81.84	0.23827	38,874	124,276	3,181,424	10,170,767	13,352,191	13,051,995
361 Sanitary Sewers - Roosevelt Ave Will		2001	239,768	R2.5	80	19.50	24	R2.5024	0.77923	62.34	81.84	0.23827	57,130	182,638	4,675,475	14,947,133	19,622,608	19,181,435
361 Sanitary Sewers		1999	22,576	R2.5	80	21.50	27	R2.5027	0.75273	60.22	81.72	0.26309	5,940	16,636	485,384	1,359,527	1,844,912	1,806,081
361 Sanitary Sewers		1999	18,253	R2.5	80	21.50	27	R2.5027	0.75273	60.22	81.72	0.26309	4,802	13,451	392,430	1,099,168	1,491,598	1,460,203
361 Sanitary Sewers		1998	925	R2.5	80	22.50	28	R2.5028	0.74396	59.52	82.02	0.27432	254	671	20,823	55,083	75,906	74,037
361 Sanitary Sewers		1998	1,530	R2.5	80	22.50	28	R2.5028	0.74396	59.52	82.02	0.27432	420	1,110	34,421	91,055	125,477	122,386
361 Sanitary Sewers		1998	105,741	R2.5	80	22.50	28	R2.5028	0.74396	59.52	82.02	0.27432	29,007	76,734	2,379,175	6,293,712	8,672,887	8,459,290
361 Sanitary Sewers		1996	86,539	R2.5	80	24.50	31	R2.5031	0.71785	57.43	81.93	0.29904	25,878	60,660	2,120,216	4,969,959	7,090,175	6,923,154
361 Sanitary Sewers		1993	18,658	R2.5	80	27.50	34	R2.5034	0.69207	55.37	82.87	0.33165	6,191	12,467	513,081	1,033,066	1,548,147	1,492,600

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmt	Eng Assmt	Eng Assmt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Table @ col (51)	Col (48) * (52)	Col (48) * (53)	Col (53) / (54)	Col (48) * (56)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
361	Sanitary Sewers	1993	1,824	R2.5	80	27.50	34	R2.5034	0.69207	55.37	82.87	0.33185	605	1,219	50,151	100,976	151,127	145,893
361	Sanitary Sewers - Upper Codorus	1993	128,480	R2.5	80	27.50	34	R2.5034	0.69207	55.37	82.87	0.33185	42,968	86,512	3,560,700	7,169,308	10,730,008	10,358,400
361	Sanitary Sewers	1993	41,397	R2.5	80	27.50	34	R2.5034	0.69207	55.37	82.87	0.33185	13,738	27,659	1,138,421	2,292,159	3,430,580	3,311,779
361	Sanitary Sewers	1993	40,796	R2.5	80	27.50	34	R2.5034	0.69207	55.37	82.87	0.33185	13,536	27,258	1,121,899	2,258,892	3,380,790	3,263,705
361	Sanitary Sewers	1992	212	R2.5	80	28.50	36	R2.5036	0.67506	54	82.5	0.34545	73	139	6,034	11,432	17,466	16,937
361	Sanitary Sewers - Upper Codorus	1992	725,700	R2.5	80	28.50	36	R2.5036	0.67506	54	82.5	0.34545	250,693	475,007	20,682,450	39,187,800	59,870,250	58,056,000
361	Sanitary Sewers - Upper Codorus	1992	1,729,865	R2.5	80	28.50	36	R2.5036	0.67506	54	82.5	0.34545	597,582	1,132,283	49,301,147	93,412,699	142,713,846	138,389,184
361	Sanitary Sewers	1989	10,030	R2.5	80	31.50	39	R2.5039	0.64884	51.99	83.49	0.37729	3,784	6,246	315,943	521,457	837,400	802,395
361	Sanitary Sewers	1988	7,703	R2.5	80	32.50	41	R2.5041	0.63322	50.66	83.16	0.39081	3,010	4,693	250,333	390,211	640,543	616,203
361	Sanitary Sewers	1988	9,943	R2.5	80	32.50	41	R2.5041	0.63322	50.66	83.16	0.39081	3,886	6,057	323,150	503,716	826,866	795,445
361	Sanitary Sewers	1988	13,216	R2.5	80	32.50	41	R2.5041	0.63322	50.66	83.16	0.39081	5,165	8,051	429,521	669,524	1,099,045	1,057,282
361	Sanitary Sewers	1988	100,593	R2.5	80	32.50	41	R2.5041	0.63322	50.66	83.16	0.39081	39,313	61,280	3,269,286	5,096,062	8,365,348	8,047,473
361	Sanitary Sewers	1987	312	R2.5	80	33.50	42	R2.5042	0.62498	50	83.5	0.40120	125	187	10,449	15,595	26,045	24,954
361	Sanitary Sewers	1983	50,635	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	22,538	28,097	1,898,831	2,367,209	4,266,040	4,050,839
361	Sanitary Sewers	1983	58,046	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	25,836	32,210	2,176,738	2,713,667	4,890,405	4,643,708
361	Sanitary Sewers	1983	6,436	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	2,865	3,571	241,361	300,897	542,258	514,804
361	Sanitary Sewers	1983	1,002	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	446	556	37,564	46,829	84,393	80,136
361	Sanitary Sewers - Tyler Run	1983	445,860	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	198,363	247,297	16,712,231	20,834,582	37,546,813	35,652,760
361	Sanitary Sewers - Tyler Run	1983	1,095,553	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	487,631	607,922	41,083,249	51,217,117	92,300,366	87,644,284
361	Sanitary Sewers	1983	4,403	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	1,960	2,443	165,097	205,821	370,918	352,207
361	Sanitary Sewers - Codorus Creek	1983	5,131,377	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	2,283,976	2,847,401	192,426,645	239,691,884	432,318,528	410,510,175
361	Sanitary Sewers - Codorus Creek	1983	1,694,720	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	754,320	940,400	63,552,001	79,228,161	142,780,153	135,577,802
361	Sanitary Sewers - Codorus Creek	1983	4,869,474	R2.5	80	37.50	47	R2.5047	0.58438	46.75	84.25	0.44510	2,078,383	2,591,091	175,105,277	218,297,912	393,403,189	373,557,924
361	Sanitary Sewers	1980	27,072	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	12,942	14,130	1,096,410	1,197,117	2,293,527	2,165,748
361	Sanitary Sewers	1980	149,786	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	71,605	78,181	6,066,317	6,623,520	12,689,837	11,982,849
361	Sanitary Sewers	1980	14,366	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	6,867	7,500	582,634	636,150	1,218,784	1,150,882
361	Sanitary Sewers	1980	157,368	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	75,230	82,138	6,373,398	6,968,807	13,332,205	12,589,429
361	Sanitary Sewers	1980	547,753	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	261,853	285,900	22,183,980	24,221,620	46,405,600	43,820,208
361	Sanitary Sewers	1980	429,547	R2.5	80	40.50	51	R2.5051	0.55269	44.22	84.72	0.47805	205,345	224,202	17,396,850	18,994,565	36,391,215	34,363,754
361	Sanitary Sewers	1979	12,009	R2.5	80	41.50	52	R2.5052	0.54488	43.59	85.09	0.48772	5,857	6,152	486,383	523,482	1,021,865	960,738
361	Sanitary Sewers	1979	3,894	R2.5	80	41.50	52	R2.5052	0.54488	43.59	85.09	0.48772	1,899	1,995	161,614	169,753	331,367	311,545
361	Sanitary Sewers	1979	9,510	R2.5	80	41.50	52	R2.5052	0.54488	43.59	85.09	0.48772	4,638	4,872	394,647	414,522	809,169	760,766
361	Sanitary Sewers	1971	2,319	R2.5	80	49.50	62	R2.5062	0.46944	37.56	87.06	0.56857	1,319	1,000	114,791	87,102	201,893	185,521
361	Sanitary Sewers	1965	3,561	R2.5	80	55.50	69	R2.5069	0.41973	33.58	89.08	0.62304	2,219	1,342	197,527	119,573	317,201	284,868
361	Sanitary Sewers	1963	1,734	R2.5	80	57.50	72	R2.5072	0.39927	31.94	89.44	0.64289	1,114	620	99,679	55,369	155,048	138,683
361	Sanitary Sewers	1963	2,610	R2.5	80	57.50	72	R2.5072	0.39927	31.94	89.44	0.64289	1,678	932	150,071	83,361	233,432	208,794
361	Sanitary Sewers	1963	4,869	R2.5	80	57.50	72	R2.5072	0.39927	31.94	89.44	0.64289	3,130	1,739	279,974	155,519	435,493	389,529
361	Sanitary Sewers	1962	9,843	R2.5	80	58.50	73	R2.5073	0.39258	31.41	88.91	0.65065	6,404	3,439	575,817	309,169	884,986	787,442
361	Sanitary Sewers	1961	10,732	R2.5	80	59.50	74	R2.5074	0.38594	30.88	90.38	0.65833	7,065	3,667	636,528	331,391	969,918	858,525
361	Sanitary Sewers	1958	12,629	R2.5	80	62.50	78	R2.5078	0.36004	28.8	91.3	0.68456	8,646	3,983	789,333	363,725	1,153,058	1,010,348
361	Sanitary Sewers	1957	7,720	R2.5	80	63.50	79	R2.5079	0.35374	28.3	91.8	0.69172	5,340	2,380	490,241	218,485	708,726	617,826
361	Sanitary Sewers	1956	10,794	R2.5	80	64.50	81	R2.5081	0.34133	27.31	91.81	0.70254	7,583	3,211	696,227	294,790	991,017	863,538
361	Sanitary Sewers	1955	16,583	R2.5	80	65.50	82	R2.5082	0.33523	26.82	92.32	0.70949	11,766	4,817	1,086,198	444,761	1,530,958	1,326,654
361	Sanitary Sewers	1954	49,180	R2.5	80	66.50	83	R2.5083	0.3292	26.34	92.84	0.71629	35,227	13,953	3,270,472	1,295,402	4,565,874	3,934,402
361	Sanitary Sewers	1954	9,269	R2.5	80	66.50	83	R2.5083	0.3292	26.34	92.84	0.71629	6,639	2,630	616,394	244,146	860,541	741,526

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

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Wastewater Collection & Treatment System
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As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmnt	Eng Assmnt	Eng Assmnt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables By Col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (48) * (55)	Col (48) - (56)	Col (48) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
361	Sanitary Sewers	1953	92,116	R2.5	80	67.50	84	R2.5084	0.32325	25.86	93.36	0.72301	66,601	25,515	6,217,832	2,382,121	8,599,953	7,389,282
361	Sanitary Sewers	1953	13,104	R2.5	80	67.50	84	R2.5084	0.32325	25.86	93.36	0.72301	9,474	3,630	884,501	338,862	1,223,363	1,048,298
361	Sanitary Sewers	1953	4,819	R2.5	80	67.50	84	R2.5084	0.32325	25.86	93.36	0.72301	3,484	1,335	325,260	124,611	449,870	385,493
361	Sanitary Sewers	1953	1,077	R2.5	80	67.50	84	R2.5084	0.32325	25.86	93.36	0.72301	779	298	72,720	27,860	100,580	86,187
361	Sanitary Sewers	1953	6,915	R2.5	80	67.50	84	R2.5084	0.32325	25.86	93.36	0.72301	5,000	1,915	466,783	178,830	645,612	553,224
361	Sanitary Sewers	1952	863	R2.5	80	68.50	86	R2.5086	0.31158	24.93	93.43	0.73317	633	230	59,098	21,508	80,607	69,020
361	Sanitary Sewers	1951	2,591	R2.5	80	69.50	87	R2.5087	0.30585	24.47	93.97	0.73980	1,916	675	180,045	63,391	243,436	207,246
361	Sanitary Sewers	1950	2,825	R2.5	80	70.50	88	R2.5088	0.30021	24.02	94.52	0.74587	2,107	718	199,148	67,852	267,000	225,984
361	Sanitary Sewers	1950	7,374	R2.5	80	70.50	88	R2.5088	0.30021	24.02	94.52	0.74587	5,500	1,874	519,865	177,123	696,988	589,918
361	Sanitary Sewers	1950	7,454	R2.5	80	70.50	88	R2.5088	0.30021	24.02	94.52	0.74587	5,560	1,894	525,513	179,047	704,561	596,327
361	Sanitary Sewers	1949	794	R2.5	80	71.50	89	R2.5089	0.29464	23.57	95.07	0.75208	597	197	56,784	18,719	75,503	63,534
361	Sanitary Sewers	1948	1,332	R2.5	80	72.50	91	R2.5091	0.28376	22.7	95.2	0.76155	1,014	318	96,542	30,228	126,770	106,530
361	Sanitary Sewers	1947	5,481	R2.5	80	73.50	92	R2.5092	0.27844	22.28	95.78	0.76738	4,213	1,278	403,564	122,332	525,896	439,254
361	Sanitary Sewers	1946	7,035	R2.5	80	74.50	93	R2.5093	0.2732	21.86	96.36	0.77314	5,439	1,596	524,127	153,791	677,918	562,821
361	Sanitary Sewers	1945	1,127	R2.5	80	75.50	94	R2.5094	0.26805	21.44	96.94	0.77883	878	249	85,095	24,165	109,259	90,166
361	Sanitary Sewers	1944	766	R2.5	80	76.50	96	R2.5096	0.258	20.64	97.14	0.78752	603	163	58,610	15,813	74,424	61,292
361	Sanitary Sewers	1943	523	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	415	108	40,526	10,589	51,115	41,834
361	Sanitary Sewers	1943	1,617	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	1,282	335	125,329	32,747	158,076	129,372
361	Sanitary Sewers	1943	251,437	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	199,349	52,088	19,486,330	5,091,590	24,577,920	20,114,922
361	Sanitary Sewers	1943	31,693	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	25,266	6,607	2,471,742	645,842	3,117,585	2,551,476
361	Sanitary Sewers	1943	21,635	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	17,153	4,482	1,676,706	438,107	2,114,812	1,730,793
361	Sanitary Sewers	1943	25,343	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	20,093	5,250	1,964,066	513,197	2,477,285	2,027,446
361	Sanitary Sewers	1943	24,765	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	19,635	5,130	1,919,285	501,491	2,420,776	1,981,198
361	Sanitary Sewers	1943	4,326	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	3,430	896	335,265	87,602	422,867	346,080
361	Sanitary Sewers	1943	2,801	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	2,221	580	217,062	56,716	273,778	224,064
361	Sanitary Sewers	1943	16,289	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	12,915	3,374	1,262,418	329,858	1,592,275	1,303,141
361	Sanitary Sewers	1943	22,473	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	17,817	4,656	1,741,638	455,073	2,196,711	1,797,820
361	Sanitary Sewers	1943	26,781	R2.5	80	77.50	97	R2.5097	0.2531	20.25	97.75	0.79284	21,218	5,543	2,074,009	541,919	2,615,928	2,140,913
361	Sanitary Sewers	1942	6,584	R2.5	80	78.50	98	R2.5098	0.2483	19.86	98.36	0.79809	5,255	1,329	516,882	130,768	647,650	526,759
361	Sanitary Sewers	1941	1,583	R2.5	80	79.50	99	R2.5099	0.24357	19.49	98.99	0.80311	1,272	311	125,884	30,861	156,746	126,678
361	Sanitary Sewers	1940	3,610	R2.5	80	80.50	101	R2.5101	0.2344	18.75	99.25	0.81108	2,928	682	290,584	67,683	358,267	288,779
361	Sanitary Sewers	1939	360	R2.5	80	81.50	102	R2.5102	0.22994	18.4	99.9	0.81582	294	66	29,325	6,621	35,945	28,785
361	Sanitary Sewers	1939	5,824	R2.5	80	81.50	102	R2.5102	0.22994	18.4	99.9	0.81582	4,751	1,073	474,632	107,156	581,789	465,897
361	Sanitary Sewers	1938	10,287	R2.5	80	82.50	103	R2.5103	0.22557	18.05	100.55	0.82049	8,424	1,843	848,990	185,311	1,032,301	821,323
361	Sanitary Sewers	1937	11,474	R2.5	80	83.50	104	R2.5104	0.22128	17.7	101.2	0.82510	9,468	2,006	958,114	203,097	1,161,211	917,954
361	Sanitary Sewers	1936	10,543	R2.5	80	84.50	106	R2.5106	0.21298	17.04	101.54	0.83218	8,774	1,769	890,922	179,661	1,070,583	843,477
361	Sanitary Sewers	1936	1,661	R2.5	80	84.50	106	R2.5106	0.21298	17.04	101.54	0.83218	1,383	278	140,390	28,311	168,701	132,914
361	Sanitary Sewers	1936	3,515	R2.5	80	84.50	106	R2.5106	0.21298	17.04	101.54	0.83218	2,925	590	297,018	59,896	356,913	281,209
361	Sanitary Sewers	1936	3,195	R2.5	80	84.50	106	R2.5106	0.21298	17.04	101.54	0.83218	2,659	536	269,999	54,447	324,447	255,621
361	Sanitary Sewers	1935	5,013	R2.5	80	85.50	107	R2.5107	0.20895	16.72	102.22	0.83643	4,193	820	428,582	83,812	512,393	401,012
361	Sanitary Sewers	1935	874	R2.5	80	85.50	107	R2.5107	0.20895	16.72	102.22	0.83643	731	143	74,746	14,617	89,363	69,938
361	Sanitary Sewers	1935	195	R2.5	80	85.50	107	R2.5107	0.20895	16.72	102.22	0.83643	163	32	16,678	3,262	19,940	15,605
361	Sanitary Sewers	1934	796	R2.5	80	86.50	108	R2.5108	0.20501	16.4	102.9	0.84062	669	127	68,877	13,059	81,936	63,702
361	Sanitary Sewers	1933	2,664	R2.5	80	87.50	109	R2.5109	0.20115	16.09	103.59	0.84468	2,247	417	234,866	43,188	278,054	214,734
361	Sanitary Sewers	1932	187	R2.5	80	88.50	111	R2.5111	0.19369	15.5	104	0.85000	142	25	14,818	2,595	17,414	13,395

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Determination of the Depreciated Original Cost

(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
Account	Description	Placement Year	Original Costs	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Age at April 6, 2021 Appraisal Date	Age as % of NSL	Iowa Lookup	Iowa Condition Percent of Percent 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	Normal Service Life (NSL)
Input	Input	Input	Input	Input	Input	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation	Calculation
AUS Input	Eng Assmt	Eng Assmt	Eng Assmt	AUS Input	AUS Input	2021-[(45)+0.5]	Col (49) / (48)	Col (47) & (50)	Lookup Iowa Curves Life Tables @ col (51)	Col (48) * (52)	Col (48) + (53)	Col (53) / (54)	Col (45) * (55)	Col (45) - (56)	Col (49) * (49)	Col (48) * (53)	Col (48) * (54)	Col (48) * (48)
Acct	Descrip	Year	Original Cost	Iowa	Normal Life	age	AgeP	IowaLookup	Iowa Condition	Rem Life	Total Life	Theo%	Theo Reserve	Net Book	OC wtd Age	OC wtd Rem Life	OC wtd Total Life	OC wtd Normal Life
361	Sanitary Sewers	1932	1,555	R2.5	80	88.50	111	R2.5111	0.19369	15.5	104	0.85000	1,322	233	137,819	24,103	181,722	124,402
361	Sanitary Sewers	1932	2,030	R2.5	80	88.50	111	R2.5111	0.19369	15.5	104	0.85000	1,726	304	179,664	31,467	211,130	162,408
361	Sanitary Sewers	1932	937	R2.5	80	88.50	111	R2.5111	0.19369	15.5	104	0.85000	797	140	82,941	14,526	97,468	74,975
361	Sanitary Sewers	1931	11,336	R2.5	80	89.50	112	R2.5112	0.19008	15.21	104.71	0.85000	9,631	1,699	1,014,076	172,336	1,186,412	906,437
361	Sanitary Sewers	1931	395	R2.5	80	89.50	112	R2.5112	0.19008	15.21	104.71	0.85000	335	60	35,321	6,003	41,324	31,572
361	Sanitary Sewers	1930	17,025	R2.5	80	90.50	113	R2.5113	0.18654	14.92	105.42	0.85000	14,471	2,554	1,540,772	254,014	1,794,786	1,382,008
361	Sanitary Sewers	1930	3,732	R2.5	80	90.50	113	R2.5113	0.18654	14.92	105.42	0.85000	3,173	559	337,780	55,687	393,467	298,590
361	Sanitary Sewers	1930	124	R2.5	80	90.50	113	R2.5113	0.18654	14.92	105.42	0.85000	106	18	11,253	1,855	13,108	8,947
361	Sanitary Sewers	1930	2,042	R2.5	80	90.50	113	R2.5113	0.18654	14.92	105.42	0.85000	1,736	306	184,830	30,471	215,301	163,368
361	Sanitary Sewers	1928	3,667	R2.5	80	92.50	116	R2.5116	0.17639	14.11	106.61	0.85000	3,117	550	339,186	51,740	390,926	293,350
361	Sanitary Sewers	1927	4,929	R2.5	80	93.50	117	R2.5117	0.17315	13.85	107.35	0.85000	4,190	739	460,906	68,273	529,180	394,358
361	Sanitary Sewers	1926	23,748	R2.5	80	94.50	118	R2.5118	0.16998	13.6	108.1	0.85000	20,186	3,562	2,244,167	322,970	2,567,137	1,899,824
361	Sanitary Sewers	1926	3,066	R2.5	80	94.50	118	R2.5118	0.16998	13.6	108.1	0.85000	2,606	460	289,767	41,702	331,469	245,306
361	Sanitary Sewers	1926	1,383	R2.5	80	94.50	118	R2.5118	0.16998	13.6	108.1	0.85000	1,176	207	130,701	18,810	149,511	110,646
361	Sanitary Sewers	1925	30,005	R2.5	80	95.50	119	R2.5119	0.16687	13.35	108.85	0.85000	25,504	4,501	2,835,440	400,562	3,268,002	2,400,369
361	Sanitary Sewers	1925	1,135	R2.5	80	95.50	119	R2.5119	0.16687	13.35	108.85	0.85000	965	170	108,407	15,154	123,561	90,812
361	Sanitary Sewers	1925	829	R2.5	80	95.50	119	R2.5119	0.16687	13.35	108.85	0.85000	705	124	79,170	11,067	90,238	66,321
361	Sanitary Sewers	1925	2,480	R2.5	80	95.50	119	R2.5119	0.16687	13.35	108.85	0.85000	2,108	372	236,858	33,111	269,969	198,415
361	Sanitary Sewers	1924	508	R2.5	80	96.50	121	R2.5121	0.16085	12.87	109.37	0.85000	433	76	49,126	6,952	55,678	40,726
361	Sanitary Sewers	1922	1,355	R2.5	80	98.50	123	R2.5123	0.15505	12.4	110.9	0.85000	1,152	203	133,498	18,806	150,304	106,425
361	Sanitary Sewers	1921	179	R2.5	80	99.50	124	R2.5124	0.15223	12.18	111.68	0.85000	153	25	17,858	2,188	20,044	14,358
361	Sanitary Sewers	1919	1,125	R2.5	80	101.50	127	R2.5127	0.15	12	113.5	0.85000	956	169	114,153	13,498	127,649	88,973
361	Sanitary Sewers	1917	1,510	R2.5	80	103.50	129	R2.5129	0.15	12	115.5	0.85000	1,283	227	156,257	18,117	174,374	120,778
361	Sanitary Sewers	1917	20	R2.5	80	103.50	129	R2.5129	0.15	12	115.5	0.85000	17	3	2,033	236	2,268	1,571
361	Sanitary Sewers	1917	1,387	R2.5	80	103.50	129	R2.5129	0.15	12	115.5	0.85000	1,179	208	143,506	16,636	160,144	110,922
361	Sanitary Sewers	1917	641	R2.5	80	103.50	129	R2.5129	0.15	12	115.5	0.85000	545	96	66,335	7,691	74,026	51,274
361	Sanitary Sewers	1916	298	R2.5	80	104.50	131	R2.5131	0.15	12	116.5	0.85000	251	45	30,889	3,547	34,436	23,847
361	Sanitary Sewers	1912	360	R2.5	80	108.50	136	R2.5136	0.15	12	120.5	0.85000	323	57	41,203	4,557	45,760	30,380
			26,712,768										**9,053,947**	**17,658,821**	**785,658,743**	**1,458,804,347**	**2,227,463,056**	**2,137,021,448**
354.3	7.5 HP Smith & Loveles Package Pur	1980	116,921	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	95,585	21,336	4,735,261	1,056,961	5,792,242	5,261,423
354.3	Wet Well Structure	1980	15,033	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	12,289	2,744	608,822	135,895	744,717	676,469
354.3	Valve Vault	1980	2,646	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	2,163	483	107,152	23,917	131,070	119,058
354.3	Plug Valves	1980	2,766	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	2,261	505	112,023	25,005	137,028	124,470
354.3	Check Valves	1980	2,285	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	1,868	417	92,541	20,656	113,197	102,823
355.3	Generator	1980	15,033	R3.0	35	40.50	116	R3.0116	0.15	5.25	45.75	0.85000	12,778	2,255	808,822	78,821	967,743	526,142
354.3	Automatic Transfer Switch	1980	2,105	R4.0	45	40.50	90	R4.0090	0.20092	9.04	49.54	0.81752	1,721	384	85,235	19,025	104,260	94,706
360.21	Forcemain (ft)	1980	42,592	R3.0	75	40.50	54	R3.0054	0.50513	37.88	78.38	0.51671	22,008	20,584	1,724,995	1,613,403	3,338,398	3,184,435
			199,380										**150,673**	**48,707**	**8,074,871**	**2,973,783**	**11,048,655**	**10,099,526**
			34,303,573										**12,776,927**	**21,526,646**	**1,073,008,498**	**1,737,437,622**	**2,810,446,111**	**2,650,480,608**
			155,875,776										**58,769,671**	**97,106,105**	**3,611,368,968**	**5,882,061,114**	**9,285,323,136**	**8,938,931,946**

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)	(4a)	(4b)	(5)	(6)	(6a)	(6b)
Account Number	Description		Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence		Tax Depreciation	
				years	% of CORLD		Table	Life
353.00	Land & Land Rights - Land		ZNonDep	0.00	0.00%		Non-Depr	0.00
353.05	Land & Land Rights - Easements		ZNonDep	0.00	0.00%		Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping		R4.0	45.00	0.00%		MACRS	25.00
354.40	Stuctures & Improvements - Treatment		R4.0	55.00	0.00%		MACRS	25.00
355.30	Generating Equipment - Pumping		R3.0	35.00	0.00%		MACRS	25.00
360.21	Collection Sewers - Force - Mains		R3.0	75.00	0.00%		MACRS	25.00
361.00	Mains Gravity		R2.5	80.00	0.00%		MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes		S2.0	75.00	0.00%		MACRS	25.00
363.00	Service Laterals		R3.0	50.00	0.00%		MACRS	25.00
364.00	Flow Measuring Devices		S2.0	30.00	0.00%		MACRS	25.00
371.20	Pumping Equipment		R3.0	35.00	0.00%		MACRS	25.00
380.00	Treatment and Disposal Equipment		R2.0	45.00	0.00%		MACRS	25.00
390.00	Office Furniture and Equipment		R3.0	12.00	0.00%		MACRS	12.00
391.00	Transportation Equipment		R3.0	15.00	0.00%		MACRS	10.00
394.00	Laboratory Equipment		R3.0	20.00	0.00%		MACRS	20.00

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Income Approach

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(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	23,519,433	13,876,085	10,538,130	9,643,348	(894,782)	(258,502)	5,045,467	-	4,856,383	0.964	4,681,553	4,681,553
2	1.5	23,519,433	13,867,066	10,706,768	9,652,367	(1,054,401)	(304,617)	5,083,310	-	4,873,674	0.894	4,357,065	9,038,618
3	2.5	30,575,263	13,863,599	10,878,341	16,711,664	5,833,323	1,685,247	5,121,433	381,016	9,523,968	0.830	7,904,893	16,943,511
4	3.5	30,575,263	13,865,677	11,052,884	16,709,586	5,656,702	1,634,221	5,159,843	-	9,915,522	0.771	7,644,867	24,588,378
5	4.5	30,575,263	13,873,301	11,230,430	16,701,962	5,471,532	1,580,726	5,198,542	-	9,922,694	0.716	7,104,649	31,693,027
6	5.5	38,219,079	13,796,046	11,411,016	24,423,033	13,012,017	3,759,172	5,237,533	412,765	15,013,563	0.664	9,969,006	41,662,033
7	6.5	38,219,079	13,729,765	11,324,695	24,489,314	13,164,619	3,803,259	4,276,880	-	16,409,175	0.617	10,124,461	51,786,494
8	7.5	38,219,079	13,674,212	11,479,142	24,544,867	13,065,725	3,774,688	4,308,955	-	16,461,224	0.573	9,432,281	61,218,775
9	8.5	45,862,895	13,629,150	11,636,194	32,233,745	20,597,551	5,950,633	4,341,273	412,767	21,529,072	0.531	11,431,937	72,650,712
10	9.5	45,862,895	13,594,359	11,795,877	32,268,536	20,472,659	5,914,551	4,373,832	-	21,980,153	0.493	10,836,215	83,486,927
11	10.5	45,862,895	13,569,627	11,958,226	32,293,268	20,335,042	5,874,794	4,406,638	-	22,011,836	0.458	10,081,421	93,568,348
12	11.5	50,449,185	13,554,757	12,123,267	36,894,428	24,771,161	7,156,388	4,439,686	247,659	25,050,695	0.425	10,646,545	104,214,893
13	12.5	50,449,185	13,549,561	12,291,035	36,899,624	24,608,589	7,109,421	4,472,984	-	25,317,219	0.395	10,000,302	114,215,195
14	13.5	50,449,185	13,553,864	12,461,560	36,895,321	24,433,761	7,058,914	4,506,531	-	25,329,876	0.366	9,270,735	123,485,930
15	14.5	53,476,136	13,567,502	12,634,873	39,908,634	27,273,761	7,879,389	4,540,329	163,455	27,325,461	0.340	9,290,657	132,776,587
16	15.5	53,476,136	13,804,762	9,956,507	39,671,374	29,714,867	8,584,625	4,574,383	-	26,512,366	0.316	8,377,908	141,154,495
17	16.5	53,476,136	14,046,766	10,094,596	39,429,370	29,334,774	8,474,816	4,608,690	-	26,345,864	0.293	7,719,338	148,873,833
18	17.5	56,684,704	14,293,611	10,234,860	42,391,093	32,156,233	9,289,936	4,643,255	173,263	28,284,639	0.272	7,693,422	156,567,255
19	18.5	56,684,704	14,545,393	10,377,325	42,139,311	31,761,986	9,176,038	4,678,080	-	28,285,193	0.253	7,156,154	163,723,409
20 and beyond	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	3.044	85,564,667	249,288,076
								93,730,810					
Age				19.5									
PW(Age) = 1/(1+Discount Rate)$^{(Age)}$				0.235				Net Plant		141,855,874			
PW to Perpetuity = 1/Capitalization Rate				12.953				ADIT		(10,929,899)			
$PW_{(20\text{ and Beyond})}$ = PW to Perpetuity * PW Factor$_{(19.5)}$				3.044				Rate Base		130,925,975	0.235	30,767,604	194,491,013
								Annual Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 19.5 years		299,258,981	0.235	70,325,861	234,049,270
								PP	235,000,000				
								OCLD	97,106,105				
								PP/OCLD	2.420				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										121,658,770.68	0.235	28,589,811	192,313,220
								Average					217,535,395

Deferred Tax

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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Discounted Cash Flow Analysis

Discount Rate: 7.72%
Capitalization Rate: 5.79%

(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)
20	19.5	56,684,704	14,802,210	10,522,015	41,882,494	31,360,479	9,060,042	4,713,166	-	28,109,286	0.235	6,605,682	170,329,091
21	20.5	60,085,786	15,064,164	10,668,956	45,021,622	34,352,666	9,924,485	4,748,516	183,658	30,164,963	0.218	6,575,962	176,905,053
22	21.5	60,085,786	15,331,356	10,818,172	44,754,430	33,936,258	9,804,185	4,784,129	-	30,166,116	0.202	6,093,555	182,998,608
23	22.5	60,085,786	15,603,892	10,969,689	44,481,894	33,512,205	9,681,676	4,820,008	-	29,980,210	0.188	5,636,279	188,634,887
24	23.5	63,690,933	15,881,880	11,123,537	47,809,053	36,685,516	10,598,446	4,856,159	194,678	32,159,770	0.174	5,595,800	194,230,687
25	24.5	63,690,933	16,165,427	11,279,740	47,525,506	36,245,766	10,471,402	4,892,582	-	32,161,522	0.162	5,210,167	199,440,854
26	25.5	63,690,933	16,454,645	4,929,274	47,236,288	42,307,014	12,222,496	4,929,274	-	30,084,518	0.150	4,512,678	203,953,532
27	26.5	67,512,389	16,749,647	4,966,244	50,762,742	45,796,498	13,230,608	4,966,244	206,359	32,359,531	0.139	4,497,975	208,451,507
28	27.5	67,512,389	17,050,550	5,003,491	50,461,839	45,458,348	13,132,917	5,003,491	-	32,325,431	0.129	4,169,981	212,621,488
29	28.5	67,512,389	17,357,471	5,041,016	50,154,918	45,113,902	13,033,406	5,041,016	-	32,080,496	0.120	3,849,660	216,471,148
30	29.5	67,512,389	17,670,530	5,078,823	49,841,859	44,763,036	12,932,041	5,078,823	-	31,830,995	0.111	3,533,240	220,004,388
31	30.5	67,512,389	17,989,851	5,116,916	49,522,538	44,405,622	12,828,784	5,116,916	-	31,576,838	0.104	3,283,991	223,288,379
32	31.5	67,512,389	18,315,558	5,155,292	49,196,831	44,041,539	12,723,601	5,155,292	-	31,317,938	0.096	3,006,522	226,294,901
33	32.5	67,512,389	18,647,778	5,254,814	48,864,611	43,609,797	12,598,870	5,193,958	-	31,071,783	0.089	2,765,389	229,060,290
34	33.5	67,512,389	18,986,644	5,355,537	48,525,745	43,170,208	12,471,873	5,232,912	-	30,820,960	0.083	2,558,140	231,618,430
35	34.5	67,512,389	19,332,286	5,395,704	48,180,103	42,784,399	12,360,413	5,272,159	-	30,547,531	0.077	2,352,160	233,970,590
36	35.5	67,512,389	19,684,841	5,436,171	47,827,548	42,391,377	12,246,869	5,311,700	-	30,268,979	0.071	2,149,098	236,119,688
37	36.5	67,512,389	20,044,447	5,476,943	47,467,942	41,990,999	12,131,200	5,351,538	-	29,985,204	0.066	1,979,023	238,098,711
38	37.5	67,512,389	20,411,246	5,518,021	47,101,143	41,583,122	12,013,364	5,391,676	-	29,696,103	0.062	1,841,158	239,939,869
39	38.5	67,512,389	20,785,381	5,559,406	46,727,008	41,167,602	11,893,320	5,432,113	-	29,401,575	0.057	1,675,890	241,615,759
40	39.5	67,512,389	21,166,999	5,601,100	46,345,390	40,744,290	11,771,025	5,472,852	-	29,101,513	0.053	1,542,380	243,158,139
41	40.5	67,512,389	21,556,249	5,643,110	45,956,140	40,313,030	11,646,434	5,513,900	-	28,795,806	0.049	1,410,994	244,569,133
42	41.5	67,512,389	21,953,284	5,685,434	45,559,105	39,873,671	11,519,504	5,555,255	-	28,484,346	0.046	1,310,280	245,879,413
43	42.5	67,512,389	22,358,259	5,912,602	45,154,130	39,241,528	11,336,877	5,596,917	-	28,220,336	0.042	1,185,254	247,064,667
44	43.5	67,512,389	22,771,335	6,142,862	44,741,054	38,598,192	11,151,018	5,638,895	-	27,951,141	0.039	1,090,094	248,154,761
45	44.5	67,512,389	23,192,672	6,188,933	44,319,717	38,130,784	11,015,984	5,681,186	-	27,622,547	0.037	1,022,034	249,176,795
46	45.5	67,512,389	23,622,435	6,235,349	43,889,954	37,654,605	10,878,415	5,723,794	-	27,287,745	0.034	927,783	250,104,578
47	46.5	67,512,389	24,060,793	6,282,116	43,451,596	37,169,480	10,738,263	5,766,724	-	26,946,609	0.031	835,345	250,939,923
48	47.5	67,512,389	24,507,918	6,329,233	43,004,471	36,675,238	10,595,476	5,809,976	-	26,599,019	0.029	771,372	251,711,295
49	48.5	67,512,389	24,963,986	6,376,700	42,548,403	36,171,703	10,450,005	5,853,549	-	26,244,849	0.027	708,611	252,419,906
50	49.5	67,512,389	25,429,175	6,424,524	42,083,214	35,658,690	10,301,796	5,897,449	-	25,883,969	0.025	647,099	253,067,005
51	50.5	67,512,389	25,903,668	6,472,710	41,608,721	35,136,011	10,150,794	5,941,682	-	25,516,245	0.023	586,874	253,653,879
52	51.5	67,512,389	26,387,650	6,521,255	41,124,739	34,603,484	9,996,947	5,986,244	-	25,141,548	0.022	553,114	254,206,993
53	52.5	67,512,389	26,881,313	6,570,164	40,631,076	34,060,912	9,840,197	6,031,141	-	24,759,738	0.020	495,195	254,702,188
54	53.5	67,512,389	27,384,849	6,619,440	40,127,540	33,508,100	9,680,490	6,076,374	-	24,370,676	0.019	463,043	255,165,231
55	54.5	67,512,389	27,898,456	6,669,086	39,613,933	32,944,847	9,517,766	6,121,947	-	23,974,220	0.017	407,562	255,572,793
56	55.5	67,512,389	28,422,335	6,719,104	39,090,054	32,370,950	9,351,968	6,167,861	-	23,570,225	0.016	377,124	255,949,917
57	56.5	67,512,389	28,956,691	6,769,499	38,555,698	31,786,199	9,183,033	6,214,122	-	23,158,543	0.015	347,378	256,297,295
58	57.5	67,512,389	29,501,734	6,820,268	38,010,655	31,190,387	9,010,903	6,260,726	-	22,739,026	0.014	318,346	256,615,641
59	58.5	67,512,389	30,057,678	6,871,422	37,454,711	30,583,289	8,835,512	6,307,683	-	22,311,516	0.013	290,050	256,905,691
60	59.5	67,512,389	30,624,742	6,922,955	36,887,647	29,964,692	8,656,800	6,354,988	-	21,875,859	0.155	3,390,758	260,296,449
								225,264,937					
Age				59.5									
PW(Age) = 1/(1+Discount Rate)^(Age)				0.012									
PW to Perpetuity = 1/Capitalization Rate				12.953									
PW(20and Beyond) = PW to Perpetuity * PW Factor(19.5)				0.155									
								Net Plant		48,107,408			
								ADIT		4,201,134			
								Rate Base		52,308,542	0.012	627,703	257,533,394
								Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 59.5 years		611,872,892	0.012	7,342,475	264,248,166
								PP	235,000,000				
								RCNLD	218,366,227				
								RCNLD/PP		0.929217987			
										48,606,038.35	0.012	583,272	257,488,963

Deferred Tax

\\aus dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Calculated Rates of Return on Rate Base and Equity
(Years 1 through 20)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Period	Age	Revenues	O&M Expenses	Book Depreciation	Ratemaking Interest Expense	Book Taxable Income (Current + Deferred)	State and Federal Taxes @ 28.89%	Net Operating Income	Net (Equity) Income	Net Plant	Working Capital	Accumulated Deferred Income Taxes (ADIT)	Rate Base	Return on Rate Base	Net Equity	Return on Equity
						(3)-(4)-(5)-(6)	(7) *28.89%	(7)-(8)=(6)	(9) - (6)				(11)+(12)+(13)	(9)/(14)		(10)/(16)
1	0.5	23,519,433	13,876,085	8,772,033	5,208,879	(4,337,564)	(1,253,122)	2,124,437	(3,084,442)	231,273,433	1,270,049	(510,226)	232,033,256	0.92%	359,210,273	-0.86%
2	1.5	23,519,433	13,867,066	8,914,780	5,037,314	(4,299,727)	(1,242,191)	1,979,778	(3,057,536)	227,441,964	1,270,049	(1,027,932)	227,684,081	0.87%	356,152,738	-0.86%
3	2.5	30,575,263	13,863,599	9,041,381	4,871,969	2,798,314	808,433	6,861,850	1,989,881	223,522,015	1,651,065	(1,558,630)	223,614,450	3.07%	358,142,618	0.56%
4	3.5	30,575,263	13,865,677	9,091,477	4,709,570	2,908,539	840,277	6,777,832	2,068,262	219,590,342	1,651,065	(2,125,280)	219,116,167	3.09%	360,210,881	0.57%
5	4.5	30,575,263	13,873,301	9,139,453	4,552,584	3,009,925	869,567	6,692,942	2,140,358	215,649,470	1,651,065	(2,729,363)	214,571,172	3.12%	362,351,238	0.59%
6	5.5	38,219,079	13,796,046	9,194,995	4,400,831	10,827,207	3,127,980	12,100,058	7,699,227	211,692,008	2,063,830	(3,369,571)	210,386,267	5.75%	370,050,465	2.08%
7	6.5	38,219,079	13,729,765	9,297,559	4,254,137	10,937,618	3,159,878	12,031,877	7,777,740	206,671,329	2,063,830	(3,955,211)	204,779,948	5.88%	377,828,205	2.06%
8	7.5	38,219,079	13,674,212	9,430,528	4,112,333	11,002,006	3,178,480	11,935,859	7,823,526	201,549,756	2,063,830	(4,547,056)	199,066,530	6.00%	385,651,731	2.03%
9	8.5	45,862,895	13,629,150	9,427,539	3,975,255	18,830,951	5,440,262	17,365,944	13,390,689	196,463,490	2,476,597	(5,185,137)	193,754,950	8.96%	399,042,420	3.36%
10	9.5	45,862,895	13,594,359	9,453,436	3,842,746	18,972,354	5,481,113	17,333,987	13,491,241	191,383,886	2,476,597	(5,861,868)	187,998,615	9.22%	412,533,661	3.27%
11	10.5	45,862,895	13,569,627	9,453,708	3,714,655	19,124,905	5,525,185	17,314,375	13,599,720	186,336,816	2,476,597	(6,585,423)	182,227,990	9.50%	426,133,381	3.19%
12	11.5	50,449,185	13,554,757	9,486,962	3,590,833	23,816,633	6,880,625	20,526,841	16,936,008	181,289,540	2,724,256	(7,347,051)	176,666,745	11.62%	443,069,389	3.82%
13	12.5	50,449,185	13,549,561	9,511,052	3,471,138	23,917,434	6,909,747	20,478,825	17,007,687	176,251,472	2,724,256	(8,150,188)	170,825,540	11.99%	460,077,076	3.70%
14	13.5	50,449,185	13,553,864	9,517,357	3,355,434	24,022,530	6,940,109	20,437,855	17,082,421	171,240,645	2,724,256	(9,000,768)	164,964,133	12.39%	477,159,496	3.58%
15	14.5	53,476,136	13,567,502	9,513,406	3,243,586	27,151,642	7,844,109	22,551,119	19,307,533	166,267,568	2,887,711	(9,902,559)	159,252,720	14.16%	496,467,029	3.89%
16	15.5	53,476,136	13,804,762	9,557,814	3,135,467	26,978,093	7,793,971	22,319,589	19,184,122	161,284,137	2,887,711	(10,017,741)	154,154,107	14.48%	515,651,151	3.72%
17	16.5	53,476,136	14,046,766	9,506,372	3,030,951	26,892,047	7,769,113	22,153,885	19,122,934	156,386,455	2,887,711	(10,187,640)	149,086,486	14.86%	534,774,085	3.58%
18	17.5	56,684,704	14,293,611	9,506,280	2,929,919	29,954,894	8,653,969	24,230,844	21,300,925	151,523,430	3,060,974	(10,398,167)	144,186,237	16.81%	556,075,010	3.83%
19	18.5	56,684,704	14,545,393	9,541,430	2,832,255	29,765,626	8,599,289	23,998,592	21,166,337	146,660,080	3,060,974	(10,639,657)	139,081,397	17.26%	577,241,347	3.67%
20	19.5	56,684,704	14,802,210	9,517,372	2,737,847	29,627,275	8,559,320	23,805,802	21,067,955	141,855,874	3,060,974	(10,929,899)	133,986,949	17.77%	598,309,302	3.52%
										33,336,130.37						

Deferred Tax

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021
Calculated Rates of Return on Rate Base and Equity
(Years 1 through 20)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Period	Age	Revenues	O&M Expenses	Book Depreciation	Ratemaking Interest Expense	Book Taxable Income (Current + Deferred)	State and Federal Taxes @ 28.89%	Net Operating Income	Net (Equity) Income	Net Plant	Working Capital	Accumulated Deferred Income Taxes (ADIT)	Rate Base	Return on Rate Base	Net Equity	Return on Equity
						(3)-(4)-(5)-(6)	(7) *28.89%	(7)-(8)=(6)	(9) - (6)				(11)+(12)+(13)	(9)/(14)		(10)/(16)
20	19.5	56,684,704	14,802,210	9,517,372	2,737,847	29,627,275	8,559,320	23,805,802	21,067,955	141,855,874	3,060,974	(10,929,899)	133,986,949	17.77%	598,309,302	3.52%
20	20.5	60,085,786	15,064,164	9,465,838	2,646,585	32,909,199	9,507,467	26,048,317	23,401,732	137,138,552	3,244,632	(11,277,479)	129,105,705	20.18%	621,711,034	3.76%
20	21.5	60,085,786	15,331,356	9,443,388	2,558,366	32,752,676	9,462,248	25,848,794	23,290,428	132,479,293	3,244,632	(11,674,654)	124,049,271	20.84%	645,001,462	3.61%
20	22.5	60,085,786	15,603,892	9,448,747	2,473,087	32,560,060	9,406,601	25,626,546	23,153,459	127,850,554	3,244,632	(12,114,054)	118,981,132	21.54%	668,154,921	3.47%
20	23.5	63,690,933	15,881,880	9,446,072	2,390,651	35,972,330	10,392,406	27,970,575	25,579,924	123,260,641	3,439,310	(12,598,673)	114,101,278	24.51%	693,734,845	3.69%
20	24.5	63,690,933	16,165,427	9,365,481	2,310,962	35,849,063	10,356,794	27,803,231	25,492,269	118,787,742	3,439,310	(13,151,702)	109,075,350	25.49%	719,227,114	3.54%
20	25.5	63,690,933	16,454,645	9,361,108	2,233,930	35,641,250	10,296,757	27,578,423	25,344,493	114,355,908	3,439,310	(11,871,345)	105,923,873	26.04%	744,571,607	3.40%
20	26.5	67,512,389	16,749,647	9,301,381	2,159,466	39,301,895	11,354,317	30,107,044	27,947,578	110,020,770	3,645,669	(10,618,923)	103,047,516	29.22%	772,519,184	3.62%
20	27.5	67,512,389	17,050,550	9,267,758	2,087,484	39,106,597	11,297,896	29,896,185	27,808,701	105,756,503	3,645,669	(9,386,976)	100,015,196	29.89%	800,327,885	3.47%
20	28.5	67,512,389	17,357,471	9,200,247	2,017,901	38,936,770	11,248,833	29,705,838	27,687,937	101,597,273	3,645,669	(8,185,374)	97,057,568	30.61%	828,015,823	3.34%
20	29.5	67,512,389	17,670,530	9,138,207	1,950,637	38,753,015	11,195,746	29,507,906	27,557,269	97,537,889	3,645,669	(7,012,618)	94,170,940	31.33%	855,573,092	3.22%
20	30.5	67,512,389	17,989,851	9,105,815	1,885,616	38,531,107	11,131,637	29,285,086	27,399,470	93,548,990	3,645,669	(5,860,225)	91,334,434	32.06%	882,972,562	3.10%
20	31.5	67,512,389	18,315,558	8,972,317	1,822,762	38,401,752	11,094,266	29,130,248	27,307,486	89,731,965	3,645,669	(4,757,486)	88,620,148	32.87%	910,280,048	3.00%
20	32.5	67,512,389	18,647,778	8,865,218	1,762,004	38,237,389	11,046,782	28,952,611	27,190,607	86,060,705	3,645,669	(3,714,441)	85,991,933	33.67%	937,470,655	2.90%
20	33.5	67,512,389	18,986,644	8,860,639	1,703,270	37,961,836	10,967,174	28,697,932	26,994,662	82,432,978	3,645,669	(2,701,817)	83,376,830	34.47%	964,465,317	2.80%
20	34.5	67,512,389	19,332,286	8,561,037	1,646,495	37,972,571	10,970,276	28,648,790	27,002,295	79,144,100	3,645,669	(1,787,352)	81,002,417	35.37%	991,467,612	2.72%
20	35.5	67,512,389	19,684,841	8,545,300	1,591,611	37,690,637	10,888,825	28,393,423	26,801,812	75,910,500	3,645,669	(889,125)	78,667,044	36.09%	1,018,269,424	2.63%
20	36.5	67,512,389	20,044,447	8,374,158	1,538,558	37,555,226	10,849,705	28,244,079	26,705,521	72,887,880	3,645,669	(52,120)	76,481,429	36.93%	1,044,974,945	2.56%
20	37.5	67,512,389	20,411,246	8,276,590	1,487,272	37,337,281	10,786,741	28,037,812	26,550,540	70,002,967	3,645,669	744,830	74,393,466	37.69%	1,071,525,486	2.48%
20	38.5	67,512,389	20,785,381	8,227,974	1,437,697	37,061,337	10,707,020	27,792,014	26,354,317	67,207,105	3,645,669	1,515,780	72,368,554	38.40%	1,097,879,802	2.40%
20	39.5	67,512,389	21,166,999	8,023,449	1,389,773	36,932,168	10,669,703	27,652,238	26,262,465	64,656,508	3,645,669	2,215,597	70,517,774	39.21%	1,124,142,267	2.34%
20	40.5	67,512,389	21,556,249	7,773,703	1,343,448	36,838,989	10,642,784	27,539,653	26,196,205	62,396,705	3,645,669	2,831,125	68,873,499	39.99%	1,150,338,472	2.28%
20	41.5	67,512,389	21,953,284	7,577,869	1,298,666	36,682,570	10,597,594	27,383,642	26,084,976	60,374,091	3,645,669	3,377,850	67,397,610	40.63%	1,176,423,448	2.22%
20	42.5	67,512,389	22,358,259	7,403,327	1,255,377	36,495,426	10,543,529	27,207,274	25,951,897	58,567,681	3,645,669	3,808,520	66,021,870	41.21%	1,202,375,345	2.16%
20	43.5	67,512,389	22,771,335	7,283,950	1,213,531	36,243,573	10,470,768	26,986,336	25,772,805	56,922,626	3,645,669	4,138,181	64,706,476	41.71%	1,228,148,150	2.10%
20	44.5	67,512,389	23,192,672	7,131,843	1,173,080	36,014,794	10,404,674	26,783,200	25,610,120	55,471,969	3,645,669	4,410,588	63,528,226	42.16%	1,253,758,270	2.04%
20	45.5	67,512,389	23,622,435	6,969,228	1,133,978	35,786,748	10,338,791	26,581,935	25,447,957	54,226,535	3,645,669	4,622,606	62,494,810	42.53%	1,279,206,227	1.99%
20	46.5	67,512,389	24,060,793	6,881,911	1,096,178	35,473,507	10,248,296	26,321,389	25,225,211	53,111,347	3,645,669	4,795,887	61,552,903	42.76%	1,304,431,437	1.93%
20	47.5	67,512,389	24,507,918	6,832,329	1,059,639	35,112,503	10,144,002	26,028,140	24,968,501	52,088,994	3,645,669	4,941,232	60,675,895	42.90%	1,329,399,938	1.88%
20	48.5	67,512,389	24,963,986	6,742,299	1,024,318	34,781,786	10,048,458	25,757,646	24,733,328	51,200,244	3,645,669	5,046,853	59,892,766	43.01%	1,354,133,266	1.83%
20	49.5	67,512,389	25,429,175	6,722,249	990,174	34,370,791	9,929,722	25,431,243	24,441,069	50,375,445	3,645,669	5,132,865	59,153,979	42.99%	1,378,574,336	1.77%
20	50.5	67,512,389	25,903,668	6,651,249	957,168	34,000,304	9,822,688	25,134,784	24,177,616	49,665,877	3,645,669	5,184,445	58,495,991	42.92%	1,402,751,951	1.72%
20	51.5	67,512,389	26,387,650	6,643,245	925,262	33,556,232	9,694,395	24,787,099	23,861,837	49,008,877	3,645,669	5,219,688	57,874,234	42.85%	1,426,613,789	1.67%
20	52.5	67,512,389	26,881,313	6,493,737	894,420	33,242,919	9,603,879	24,533,460	23,639,040	48,546,281	3,645,669	5,197,608	57,389,558	42.75%	1,450,252,829	1.63%
20	53.5	67,512,389	27,384,849	6,379,781	864,606	32,883,153	9,499,943	24,247,816	23,383,210	48,242,874	3,645,669	5,128,370	57,016,913	42.53%	1,473,636,039	1.59%
20	54.5	67,512,389	27,898,456	6,331,936	835,786	32,446,211	9,373,710	23,908,287	23,072,501	48,032,886	3,645,669	5,030,968	56,709,523	42.16%	1,496,708,541	1.54%
20	55.5	67,512,389	28,422,335	6,279,895	807,927	32,002,232	9,245,445	23,564,714	22,756,787	47,920,851	3,645,669	4,904,080	56,470,600	41.73%	1,519,465,327	1.50%
20	56.5	67,512,389	28,956,691	6,260,551	780,996	31,514,151	9,104,438	23,190,709	22,409,713	47,874,422	3,645,669	4,757,045	56,277,136	41.21%	1,541,875,040	1.45%
20	57.5	67,512,389	29,501,734	6,227,179	754,963	31,028,513	8,964,138	22,819,338	22,064,375	47,907,970	3,645,669	4,585,701	56,139,340	40.65%	1,563,939,416	1.41%
20	58.5	67,512,389	30,057,678	6,239,257	729,797	30,485,657	8,807,306	22,408,148	21,678,351	47,976,396	3,645,669	4,403,069	56,025,134	40.00%	1,585,617,767	1.37%
20	59.5	67,512,389	30,624,742	6,223,975	705,471	29,958,201	8,654,924	22,008,748	21,303,277	48,107,408	3,645,669	4,201,134	55,954,211	39.33%	1,606,921,043	1.33%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	100.0%						7.72%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.79%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Capitlization 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	Market Capital Cost (2)*(3)
Debt	29%	Market	3.52%	Market	Not Applicable	Not Applicable	1.02%
Equity	71%	Market	9.85%	Market	Not Applicable	Not Applicable	6.99%
Total Capital r	100.0%						8.01%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							6.08%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	100.0%						7.16%
Growth (g)						Not Applicable	0.00%
Rate without Growth: [(1+r)/(1+g)]-1							7.16%

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-5	Periods 6-15	16-19	20-26	27-33	34-40	41-46	47-53	54-60
Income Statement										
Revenues										
Annual Revenue Growth rate										
Subscriber Growth Rate (Annual)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth										
Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Period for Periodic Growth	5									
Rate Case Activities										
Periodic Rate Case (years)	typically 3 years									
Required Rate Increase	Calculated in DCF									
Proposed Rate Increase	Calculated in DCF									
Total Revenue Adjustments	Calculated									
Base and Forecast	23,519,433									
Operating Expenses										
Expense Level 1: Personnel & Administration	5,081,844									
Expense Level 1: Personnel & Administration Rate of Change		-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Services	2,307,861									
Expense Level 2: Contract Services Rate of Change		-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	804,476									
Expense Level 3: Utilities Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	5,776,478									
Expense Level 4: Treatment Costs Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes	[illegible]									
PT Rate % of beginning net plant	0.000%									
Interest Exp as % of Debt	3.52%									
State and Federal Tax Rate	28.89%									
Earnings before Interest, Taxes, Depreciation, & Amortization									EBITDAP1	12,249,590
									EBITDAP1-5	13,874,600
									EBITDAP1-13	18,001,021
Balance Statement										
Current Asset Balance	6,585,441									
CA as % of Revenues	28.00%	28.00%	28.00%	28.00%	28.00%	28.00%	28.00%	28.00%	28.00%	28.00%
End Balance	510,274,296.00									

	0	1	2	3	4	5	6	7	8	9
Subscriber Growth Rate (Annual)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Growth						0.0%				
Required Rate Increase	110.91%	203.49%	107.62%	58.44%	56.62%	54.92%	22.47%	20.83%	19.28%	2.07%
Proposed Rate Increase	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	25.0%	0.0%	0.0%	20.0%
Total Revenue Adjustments	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	25.0%	0.0%	0.0%	20.0%
Base and Forecast	23,519,433	23,519,433	23,519,433	30,575,263	30,575,263	30,575,263	38,219,079	38,219,079	38,219,079	45,862,895
Operating Expenses	21%	21%	20%	15%	15%	15%	11%	11%	10%	8%
Expense Level 1: Personnel & Administration	5,001,844	4,901,827	4,803,771	4,707,696	4,613,542	4,521,271	4,340,420	4,166,803	4,000,131	3,840,126
Expense Level 1: Personnel & Administration Rate of Change	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%	-4.0%	-4.0%	-4.0%
Expense Level 2: Contract Services	2,261,704	2,261,704	2,216,470	2,172,141	2,128,698	2,086,124	2,044,407	2,003,514	1,963,444	1,924,175
Expense Level 2: Contract Services Rate of Change	2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
Expense Level 3: Utilities	820,566	820,566	836,977	853,717	870,791	888,207	905,971	924,090	942,572	961,423
Expense Level 3: Utilities Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	5,892,008	5,892,008	6,009,848	6,130,045	6,252,646	6,377,699	6,505,253	6,635,358	6,768,065	6,903,426
Expense Level 4: Treatment Costs Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Begin Plant	234,999,999	234,999,999	231,273,433	227,441,964	223,522,015	219,590,383	215,640,470	211,692,008	206,671,329	203,549,756
PT Rate % of beginning net plant	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)	8,772,033	8,772,033	8,914,780	9,041,381	9,091,477	9,139,453	9,194,995	9,297,559	9,430,528	9,427,539
Total Operating Expenses	22,748,155	22,648,118	22,781,846	22,904,580	22,957,154	23,012,754	22,991,041	23,027,324	23,104,740	23,056,689
Cost of Operation as % of Revenues (Calculation)	96.7%	96.3%	96.9%	74.9%	75.1%	75.3%	60.2%	60.3%	60.5%	50.3%
Operating Expenses less Depreciation	13,976,122	13,876,085	13,867,066	13,863,199	13,866,677	13,873,301	13,796,046	13,729,765	13,674,212	13,629,150
Operating Income	771,278	871,315	737,587	7,670,383	7,618,109	7,562,509	15,228,038	15,191,755	15,114,339	22,806,206
Nonoperating Revenues (Expenses)										
Interest Income										
Interest Expense	5,208,879	5,208,879	5,037,314	4,871,969	4,709,570	4,552,584	4,400,831	4,254,137	4,112,333	3,975,255
Interest Exp as % of Debt	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Total nonoperating revenues (expenses)	5,208,879.00	5,208,879.00	5,037,314.00	4,871,969.00	4,709,570.00	4,552,584.00	4,400,831.00	4,254,137.00	4,112,333.00	3,975,255.00
Income (loss) before State and Federal Taxes	(4,437,601)	(4,337,564)	(4,299,727)	2,798,314	2,908,539	3,009,925	10,827,207	10,937,618	11,002,006	18,830,951
State and Federal Taxes	(1,282,023)	(1,253,122)	(1,242,191)	808,433	840,277	869,567	3,127,980	3,159,878	3,178,480	5,440,262
State and Federal Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income After Taxes	(3,155,578)	(3,084,442)	(3,057,536)	1,989,881	2,068,262	2,140,358	7,699,227	7,777,740	7,823,526	13,390,689
Income After Taxes plus Interest	2,053,301	2,124,437	1,979,778	6,861,850	6,777,832	6,692,943	12,100,058	12,031,877	11,935,859	17,365,944
Earnings before Interest, Taxes, Depreciation, & Amortization	12,307,367	12,148,902	12,136,740	15,884,798	15,829,032	14,962,836	18,167,073	18,160,558	18,187,907	22,354,221
EBITDA Periods 1-5		13,874,600								
Income (loss) before State and Federal Taxes	(4,437,601)	(4,337,564)	(4,299,727)	2,798,314	2,908,539	3,009,925	10,827,207	10,937,616	11,002,006	18,830,951
Book Depreciation	(8,772,033)	(8,772,033)	(8,914,780)	(9,041,381)	(9,091,477)	(9,139,453)	(9,194,995)	(9,297,559)	(9,430,528)	(9,427,539)
Tax Depreciation		(10,538,130)	(10,706,768)	(10,878,341)	(11,052,884)	(11,230,430)	(11,411,016)	(11,324,695)	(11,479,142)	(11,636,194)
Difference Tax over Book Depreciation	8,772,033	(1,766,097)	(1,791,989)	(1,836,960)	(1,961,407)	(2,080,977)	(2,216,021)	(2,027,136)	(2,048,615)	(2,208,654)
Income Adjusted for Tax Depreciation	4,334,432	(6,103,661)	(6,091,715)	961,354	947,132	928,948	8,611,186	8,910,482	8,953,392	16,622,296
Income Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income Taxes	1,252,217	(1,763,348)	(1,759,897)	277,735	273,627	268,484	2,487,772	2,574,238	2,586,635	4,802,181
Income After Tax	3,082,215	(4,340,313)	(4,331,818)	683,619	673,505	653,464	6,123,414	6,336,244	6,366,757	11,820,115
Deferred Income Taxes	2,534,240	(510,226)	(517,706)	(530,698)	(566,650)	(604,083)	(640,208)	(585,640)	(591,845)	(638,081)
Accumulated Deferred Income Taxes	2,024,014	(510,226)	(1,027,932)	(1,558,630)	(2,125,280)	(2,729,363)	(3,369,571)	(3,955,211)	(4,547,056)	(5,185,137)
Income After Taxes (Book Depreciation)	(3,155,578)	(3,084,443)	(3,057,536)	1,989,881	2,068,262	2,140,358	7,699,227	7,777,740	7,823,526	13,390,689
Plus Deferred Taxes	2,534,240	(510,226)	(517,706)	(530,698)	(566,650)	(604,083)	(640,208)	(585,640)	(591,845)	(638,081)
Plus Interest	5,208,679	5,208,879	5,037,314	4,871,969	4,709,570	4,552,584	4,400,831	4,254,137	4,112,333	3,975,255
After Tax Income Debt Free	(480,939)	2,634,661	2,497,484	7,392,548	7,344,482	7,297,025	12,740,266	12,617,511	12,527,704	18,004,025
Balance Statement										
Assets										
Current Assets										
Current Asset Balance	6,585,441	6,585,441	6,585,441	8,561,074	8,561,074	8,561,074	10,701,342	10,701,342	10,701,342	12,841,613
CA as % of Revenues	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Balance Statement										
Property Plant & Equipment										
Total PP&E										
Begin Balance	-	510,274,296.00	514,058,345.00	517,870,830.00	521,711,904.00	525,581,785.00	529,480,691.00	533,408,841.00	536,616,502.00	539,848,216.00
Additions	-	5,043,467.00	5,083,310.00	5,121,433.00	5,159,843.00	5,198,542.00	5,237,533.00	4,276,880.00	4,308,955.00	4,341,273.00
Retirements	-	(1,261,368.00)	(1,270,825.00)	(1,280,359.00)	(1,289,962.00)	(1,299,634.00)	(1,309,385.00)	(1,069,219.00)	(1,077,241.00)	(1,085,316.00)
End Balance		514,058,345.00	517,870,830.00	521,711,904.00	525,581,785.00	529,480,691.00	533,408,841.00	536,616,502.00	539,848,216.00	543,104,173.00
End Balance Check	-	514,058,345.00	517,870,830.00	521,711,904.00	525,581,785.00	529,480,691.00	533,408,841.00	536,616,502.00	539,848,216.00	543,104,173.00
Book Depreciation of Property, Plant, & Equipment										
Total Book Depreciation										
Begin Balance	-	(275,274,247.00)	(282,784,911.77)	(290,428,866.49)	(298,189,888.93)	(305,991,403.44)	(313,831,222.69)	(321,716,857.59)	(329,945,172.80)	(338,298,459.55)
Depreciation		(8,772,032.77)	(8,914,779.72)	(9,041,380.44)	(9,091,476.51)	(9,139,463.75)	(9,194,994.90)	(9,297,559.21)	(9,430,527.75)	(9,427,539.35)
Retirements		1,261,368.00	1,270,825.00	1,280,359.00	1,289,962.00	1,299,634.00	1,309,386.00	1,069,219.00	1,077,241.00	1,085,316.00

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 8, 2021

	Base	0-5	Periods 6-15	16-19	20-26	27-33	34-40	41-46	47-53	54-60
Current Liabilities	5,315,392									
CL as % of Revenues	22.60%	22.60%	22.60%	22.60%	22.60%	22.60%	22.60%	22.60%	22.60%	22.60%
Long Term Debt: Notes payable, net of current portion due	147,979,531.00									
Debt Repayment years	30.00									
Proportion of Capital	71%									
Beginning Equity Capital	362,294,715									
Deductions from Equity Dividends	0									
Current Assets	6,585,441									
Current Liabilities	5,315,392									
Working Capital	1,270,049									
Discount Rate with growth	8.01%									
Discount Rate w/out growth	6.08%									

	0	1	2	3	4	5	6	7	8	9
End Balance		(282,784,911.77)	(290,428,866.49)	(298,189,888.93)	(305,991,403.44)	(313,631,222.64)	(321,716,832.59)	(329,945,173.80)	(338,298,459.55)	(346,640,687.90)
End Balance Check		(282,784,911.77)	(290,428,866.49)	(298,189,888.93)	(305,991,403.44)	(313,631,222.64)	(321,716,832.59)	(329,945,173.80)	(338,298,459.55)	(346,640,687.90)
Net Plant										
Begin Balance		234,999,999.00	231,273,418.23	227,441,963.51	223,522,015.07	219,590,381.56	215,649,470.31	211,692,008.41	206,671,329.30	201,549,756.45
End Balance		231,273,418.23	227,441,963.51	223,522,015.07	219,590,381.56	215,649,470.31	211,692,008.41	206,671,329.30	201,549,756.45	196,453,460.10
Total Assets	6,585,441.00	237,858,874.23	234,027,404.51	232,083,089.07	228,151,455.56	224,210,544.31	222,393,350.41	217,372,671.20	212,251,098.45	209,305,101.10
Tax Depreciation of Property, Plant, & Equipment										
Total MACRS Depreciation										
Begin Balance										
Depreciation		(10,536,129.51)	(10,706,768.41)	(10,878,341.43)	(11,052,883.68)	(11,230,430.08)	(11,412,016.12)	(11,374,694.51)	(11,479,142.33)	(11,636,153.76)
Retirements		1,261,468.00	1,270,829.00	1,280,159.00	1,289,962.00	1,299,634.00	1,309,385.00	1,089,219.00	1,077,745.00	1,085,316.00
End Balance		(9,274,761.51)	(9,435,939.41)	(9,597,982.43)	(9,762,921.68)	(9,930,796.08)	(10,103,631.12)	(10,255,475.51)	(10,401,901.33)	(10,550,877.76)
End Balance Check		(9,274,761.51)	(9,435,939.41)	(9,597,982.43)	(9,762,921.68)	(9,930,796.08)	(10,103,631.12)	(10,255,475.51)	(10,401,901.33)	(10,550,877.76)
Net Plant										
Begin Balance		510,374,244.00	514,058,345.00	517,670,830.00	521,711,904.00	525,581,705.00	529,480,693.00	533,408,841.00	536,616,502.00	539,848,216.00
End Balance		504,783,583.49	508,414,886.59	512,113,921.57	515,818,861.32	519,549,890.92	523,307,209.88	526,361,026.49	529,446,314.67	532,553,295.74
Tax		(10,536,129.51)	(10,706,768.41)	(10,878,341.43)	(11,052,883.68)	(11,230,430.08)	(11,412,016.12)	(11,374,694.51)	(11,479,142.33)	(11,636,153.76)
Book		(8,772,032.77)	(8,914,779.72)	(9,041,381.44)	(9,091,476.51)	(9,139,453.25)	(9,198,994.90)	(9,297,559.21)	(9,430,527.75)	(9,427,539.35)
		(1,764,096.74)	(1,791,988.69)	(1,836,959.99)	(1,961,407.17)	(2,090,976.83)	(2,216,021.22)	(2,077,135.30)	(2,048,614.58)	(2,208,614.41)
Balance Statement										
Liabilities										
Current Liabilities										
Current Liabilities	5,315,392	5,315,392	5,315,392	6,910,009	6,910,009	6,910,009	8,017,512	8,637,512	8,637,512	10,366,014
CL as % of Revenues	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities										
Long Term Debt: Notes payable, net of current portion due	147,979,531.00	147,979,531.00	143,105,501.00	138,408,208.00	133,794,601.00	129,334,781.00	125,023,622.00	120,856,168.00	116,827,629.00	112,933,375.00
Additional Debt		58,621.00	72,890.00							
Debt Repayment	(4,932,665)	(4,932,661)	(4,770,183)	(4,613,607)	(4,459,820)	(4,311,159)	(4,167,454)	(4,028,539)	(3,894,254)	(3,764,446)
Debt Repayment years	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End	143,046,880.00	143,105,501.00	138,408,208.00	133,794,601.00	129,334,781.00	125,023,622.00	120,856,168.00	116,827,629.00	112,933,375.00	109,168,929.00
Total noncurrent liabilities										
Deferred Tax Liabilities										
Begin Balance			510,226	1,027,932	1,558,640	2,125,286	2,729,363	3,369,571	3,955,211	4,547,056
Additions to Deferred Asset	(2,534,240)	510,226	517,706	530,698	566,650	604,083	640,208	585,640	591,845	638,081
Total Deferred Tax Liability	(2,534,240)	510,226	1,027,932	1,558,640	2,125,286	2,729,363	3,369,571	3,955,211	4,547,056	5,185,137
Total Liabilities	145,846,032.00	148,931,119.00	144,751,532.00	142,263,240.00	138,170,070.00	134,662,984.00	132,863,251.00	129,420,352.00	126,314,943.00	124,719,080.00
Equity										
Proportion of Capital										
Beginning Equity Capital	362,294,715	362,294,715	359,210,273	356,151,736	358,142,618	360,210,881	362,351,238	370,060,465	377,838,205	385,651,731
Additions to Equity (Retained Earnings)	(3,155,578)	(3,084,442)	(3,067,538)	1,989,881	2,068,262	2,140,358	7,609,227	7,777,740	7,823,526	13,390,699
Deductions from Equity Dividends	0		0	0	0	0	0	0	0	0
Additional Paid in Capital	0	0	0	0	0	0	0	0	0	0
Ending Equity Capital	359,139,137	359,210,273	356,157,730	358,142,618	360,210,881	362,351,238	370,060,465	377,838,205	385,651,731	399,042,431
Operating Income	771,278	875,915	757,587	7,670,783	7,638,109	7,567,509	15,226,038	15,191,755	15,114,337	22,826,308
Return On Equity	0.21%	0.24%	0.21%	2.14%	2.13%	2.09%	4.12%	4.07%	3.92%	5.72%
Total Liabilities & Stockholders Equity	504,967,180	508,141,392	500,904,270	500,405,856	498,580,951	497,014,232	502,913,716	507,258,557	511,769,674	523,761,507
Assets	6,585,441	237,858,874	234,027,405	232,083,089	228,151,456	224,210,544	222,393,350	217,372,671	212,251,098	209,305,301
Liabilities & Stockholders Equity less Assets		270,282,518	266,876,866	268,322,769	270,429,495	272,803,688	280,520,366	289,875,886	299,518,576	314,456,399
Dividend		270,282,518	266,876,866	268,322,769	270,429,495	272,803,688	280,520,366	289,875,886	299,518,576	314,456,399
Final Stockholder Equity	504,967,169	237,858,874	234,027,405	232,083,089	228,151,456	224,210,544	222,393,350	217,372,671	212,251,098	209,305,301
Capital Expenditures and Changes in Working Capital										
Capital Expenditures	-	5,045,467.00	5,082,310.00	5,121,431.00	5,159,843.00	5,198,542.00	5,237,533.00	4,276,860.00	4,308,955.00	4,341,273.00
Changes to Working Capital										
Current Assets	6,585,441	6,585,441	6,585,441	8,561,074	8,561,074	8,561,074	10,701,342	10,701,342	10,701,342	12,841,611
Current Liabilities	5,315,392	5,315,392	5,315,392	6,910,009	6,910,009	6,910,009	8,637,512	8,637,512	8,637,512	10,366,014
Working Capital	1,270,049	1,270,049	1,270,049	1,651,065	1,651,065	1,651,065	2,063,830	2,063,830	2,063,830	2,476,597
Changes to Working Capital				381,016			412,765		-	412,767
CASH FLOW										
Income from Operations	7,053,801	2,174,437	1,979,776	6,863,450	6,777,837	6,692,942	12,100,056	12,031,877	11,935,659	17,365,964
Non Cash Expense (depreciation)	8,772,033	8,772,033	8,914,780	9,041,381	9,091,677	9,139,453	9,198,995	9,297,559	9,430,528	9,427,539
Capital Expenditures		5,045,467	5,082,310	5,121,431	5,159,843	5,198,542	5,237,533	4,276,860	4,308,955	4,341,273
Change in Working Capital				381,016			412,765		-	412,767
Net Cash Flows	10,825,384	5,901,003	5,811,246	10,400,782	10,709,460	10,633,853	15,648,765	17,052,566	17,057,432	22,039,463
Period	0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5
PW Factor										
Discount Rate with growth	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate w/out growth	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
Period Present Worth Factor (PWF)	0.962	0.962	0.891	0.825	0.764	0.707	0.655	0.606	0.561	0.519
PW of Cashflows	10,411,971	5,678,665	5,177,822	8,580,645	8,183,032	7,518,534	10,247,315	10,334,849	9,569,716	11,438,873

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	20-26	27-33	34-40	41-46	47-53	54-60	0	1	2	3	4	5	6	7	8	9
Accumulated PW of Cashflows	270,746,093										16,042,636	5,628,665	10,806,487	19,387,132	27,569,164	35,087,298	45,334,613	55,668,462	65,237,681	76,676,152
CASH FLOW																				
Income from Operations											3,082,215	(4,340,313)	(4,331,818)	683,619	673,505	653,464	6,123,414	5,336,244	6,266,757	11,820,115
Depreciation												(10,536,130)	(10,706,768)	(10,878,341)	(11,052,884)	(11,230,430)	(11,412,016)	(11,324,695)	(11,479,142)	(11,636,194)
Capital Expenditures												5,045,467	5,083,310	5,121,433	5,159,843	5,198,542	5,237,533	4,276,880	4,308,955	4,341,273
Change in Working Capital														381,016			412,765			412,767
Net Cash Flows											3,082,215	1,152,350	1,291,640	6,059,511	6,566,548	6,685,352	11,884,132	13,384,059	13,536,944	18,702,269
Period											0.5	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5
PW Factor																				
Discount Rate with growth	8.01%										8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.08%										6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
Period Present Worth Factor (PW)											0.962	0.962	0.891	0.825	0.764	0.707	0.655	0.606	0.561	0.519
PW of Cashflow											2,963,091	1,108,561	1,150,851	4,999,097	5,016,841	4,726,544	7,784,106	8,110,740	7,594,226	9,706,478
Accumulated PW of Cashflows	225,556,602										4,073,652	1,108,561	2,259,412	7,258,509	12,275,350	17,001,894	24,786,000	32,896,740	40,490,966	50,197,444

Rate Case Forecasts																				
Rate Base																				
Plant In Service											514,058,345.00	514,058,345.00	517,870,830.00	521,731,904.00	525,581,785.00	529,480,693.00	533,408,841.00	536,616,567.00	539,848,216.00	543,104,173.00
Accumulated Book Depreciation											(282,784,911.77)	(282,784,911.77)	(290,428,866.49)	(298,189,888.93)	(305,991,403.44)	(313,831,222.69)	(321,716,832.59)	(329,945,172.86)	(338,298,459.55)	(346,840,682.90)
Working Capital											1,270,049.00	1,270,049.00	1,270,049.00	1,651,065.00	1,651,065.00	1,651,065.00	2,063,830.00	2,063,830.00	2,063,830.00	2,476,597.00
Accumulated Deferred Income Tax											2,024,014	(510,225)	(1,027,932)	(1,558,630)	(2,125,280)	(2,729,363)	(3,369,571)	(3,955,211)	(4,547,056)	(5,185,137)
Rate Base											234,567,496.23	232,033,256.23	227,684,080.51	223,614,450.07	219,116,166.56	214,571,172.31	210,386,267.41	204,779,948.20	199,066,530.45	193,754,950.10
Authorized Return on Rate Base	7.16%										16,795,033.00	16,613,581.00	16,302,180.00	16,010,795.00	15,688,718.00	15,363,296.00	15,063,657.00	14,662,244.00	14,253,164.00	13,872,854.00
O&M Expenses											13,976,122.00	13,876,085.00	13,867,066.00	13,863,599.00	13,865,677.00	13,873,301.00	13,796,046.00	13,729,765.00	13,674,212.00	13,629,150.00
Book Depreciation											8,772,032.77	8,772,032.77	8,914,779.72	9,061,381.44	9,091,476.51	9,139,453.25	9,194,994.90	9,297,559.21	9,430,527.75	9,427,539.35
Ratemaking Interest Expense											5,208,879.00	5,208,879.00	5,037,314.00	4,871,969.00	4,709,570.00	4,552,584.00	4,400,831.00	4,254,137.00	4,112,333.00	3,975,255.00
Revenue Requirement											44,752,056.77	44,470,577.77	44,121,339.72	43,787,744.44	43,355,441.51	42,928,634.25	42,455,528.90	41,943,705.21	41,470,236.75	40,904,798.35
O&M Expenses											13,976,122.00	13,876,085.00	13,867,066.00	13,863,599.00	13,865,677.00	13,873,301.00	13,796,046.00	13,729,765.00	13,674,212.00	13,629,150.00
Depreciation Expense											8,772,032.77	8,772,032.77	8,914,779.72	9,061,381.44	9,091,476.51	9,139,453.25	9,194,994.90	9,297,559.21	9,430,527.75	9,427,539.35
Interest											5,208,879.00	5,208,879.00	5,037,314.00	4,871,969.00	4,709,570.00	4,552,584.00	4,400,831.00	4,254,137.00	4,112,333.00	3,975,255.00
Pretax Income											16,795,033.00	16,613,581.00	16,302,180.00	16,010,795.00	15,688,718.00	15,363,296.00	15,063,657.00	14,662,244.00	14,253,164.00	13,872,854.00
State & Federal Taxes @ 28.89%											4,852,085.00	4,799,664.00	4,709,700.00	4,625,519.00	4,532,471.00	4,438,456.00	4,351,891.00	4,235,922.00	4,117,739.00	4,007,868.00
After Tax Income											11,942,948.00	11,813,917.00	11,592,480.00	11,385,276.00	11,156,247.00	10,924,840.00	10,711,766.00	10,426,322.00	10,135,425.00	9,864,986.00
Current Revenue											23,519,433.00	23,519,433.00	23,519,433.00	30,575,263.00	30,575,263.00	30,575,263.00	38,219,079.00	38,219,079.00	38,219,079.00	45,862,895.00
Revenue Requirement											49,604,151.77	49,270,241.77	48,831,039.72	48,413,263.44	47,887,912.51	47,367,090.25	46,807,419.90	46,179,627.21	45,587,975.75	44,912,666.35
Required Revenue Increase											111%	109%	108%	58%	57%	55%	22%	21%	19%	-2%
Income from Operations											2,053,301	2,124,437	1,979,778	6,861,850	6,777,832	6,692,942	12,100,058	12,031,877	11,935,859	17,365,944
Return on Rate Base											0.88%	0.92%	0.87%	3.07%	3.09%	3.12%	5.75%	5.88%	6.00%	8.96%
Required Return	7.16%										7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%
Authorized Return											16,795,033	16,613,581	16,302,180	16,010,795	15,688,718	15,363,296	15,063,657	14,662,244	14,253,164	13,872,854
After-tax Net Income											(3,155,576)	(3,084,442)	(3,057,536)	1,989,881	2,068,262	2,140,358	7,699,227	7,777,740	7,823,526	13,190,689
Taxes											(1,282,023)	(1,253,122)	(1,242,191)	808,433	840,277	869,567	3,127,980	3,159,878	3,178,480	5,440,262
Pre-tax Net Income											(4,437,601)	(4,337,564)	(4,299,727)	2,798,314	2,908,539	3,009,925	10,827,207	10,937,618	11,002,006	18,630,951
Interest Expense											(5,208,879)	(5,208,879)	(5,037,314)	4,871,969	4,709,570	4,552,584	4,400,831	4,254,137	4,112,333	3,975,255
Operating Income											771,278	871,315	737,587	7,670,283	7,618,109	7,562,509	15,228,038	15,191,755	15,114,339	22,606,206
Operating Expenses											22,748,155	22,648,118	22,781,846	22,904,980	22,957,154	23,012,754	22,991,041	23,027,324	23,104,740	23,056,689
Revenue Requirement											23,519,433	23,519,433	23,519,433	30,575,263	30,575,263	30,575,263	38,219,079	38,219,079	38,219,079	45,662,895
Required Return											16,795,033	16,613,581	16,302,180	16,010,795	15,688,718	15,363,296	15,063,657	14,662,244	14,253,164	13,872,854
Operating Expenses											22,748,155	22,648,118	22,781,846	22,904,980	22,957,154	23,012,754	22,991,041	23,027,324	23,104,740	23,056,689
Revenue Requirement											39,543,188	39,261,699	39,084,026	38,915,775	38,645,872	38,376,050	38,054,698	37,689,568	37,357,904	36,929,543
Required Rate Increase											110.91%	109.49%	107.62%	58.34%	56.62%	54.92%	22.47%	20.83%	19.28%	2.07%
Proposed Rate Increase											0	1	2	3	4	5	6	7	8	9
Rate Increase Scenario	6										0%	0%	0%	30%	0%	0%	25%	0%	0%	20%
	0										0	1	2	3	4	5	6	7	8	9
No increases (Input 2)	2										0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Rate Increases (Input 2)	3																			
Modest Rate Increases 6% every 3 year period starting in period 3 (Input 4)	4										0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%
Modest Rate Increases (Input 4)	5																			
Required Rate Increases 30% period 3, 25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)	6							249,288,076.00			0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	25.0%	0.0%	0.0%	20.0%
Required Rate Increases (Input 6)	7										100.0%	100.0%	100.0%	130.0%	130.0%	130.0%	162.5%	162.5%	162.5%	195.0%
	4										0.0%	0.0%	0.0%	0.0%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts																				
Assets																				
Change in Current Assets (Source negative / Use positive)												-	-	1,975,633			2,140,268		-	2,140,269
Plant & Equipment																				
Additions (Source negative / Use positive)												5,045,467	5,083,310	5,121,433	5,159,843	5,198,542	5,237,533	4,276,880	4,308,955	4,341,273
Liabilities																				
Change in Current Liabilities (Source Positive / Use negative)												-	-	1,594,617			1,727,503		-	1,727,502
Long Term Debt																				
Additional Long Term Debt Source Positive / Use Negative												(58,621.00)	(72,890.00)	-			-		-	-
Principal Paid Long term Debt (Source positive / Use negative)												4,932,651	4,770,183	4,613,607	4,459,820	4,311,159	4,167,454	4,028,539	3,894,254	3,764,446

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	20-26	27-33	34-40	41-46	47-53	54-60	0	1	2	3	4	5	6	7	8	9
Equity																				
Additions to Equity (Source Positive / Use Negative)																				
Dividend (Source negative / Use Positive)																				
Funds Provided from Operations																				
Sources of Funds																				
Net Income (Use Negative / Source Positive)												(3,084,442)	(3,057,536)	1,989,881	2,068,262	2,140,358	7,699,227	7,777,740	7,823,526	13,390,689
Depreciation (Source positive /use negative)												8,772,033	8,914,780	9,041,381	9,091,477	9,139,453	9,194,995	9,297,559	9,430,528	9,427,539
Current Liabilities (Source Positive)														1,594,617	-	-	1,727,503	-	-	1,727,502
Sources and Uses of Funds												5,687,591	5,857,244	12,625,879	11,159,739	11,279,811	18,621,725	17,075,299	17,254,054	24,545,730
Sources of Funds																				
Current Liabilities (Source Positive)																				
Uses of Funds																				
Current Assets. Increase (Use)														1,975,633			2,140,268			2,140,269
Fixed Assets. Assets. Increase (Use)												5,045,467	5,083,310	5,121,433	5,159,843	5,198,542	5,237,533	4,276,880	4,308,955	4,341,273
Total Uses of Funds												5,045,467	5,083,310	7,097,066	5,159,843	5,198,542	7,377,801	4,276,880	4,308,955	6,481,542
Funds from Financing Activities																				
Changes in Debt																				
Increase in Long Term Debt												(58,621.00)	(72,890.00)	-	-	-	-	-	-	-
Repayment of Long Term Debt												(4,932,651)	(4,770,183)	(4,613,607)	(4,459,820)	(4,311,159)	(4,167,454)	(4,028,539)	(3,894,254)	(3,764,446)
Funds fom Equity																				
Dividends Paid (Use)												0	0	0	0	0	0	0	0	0
Additional Paid in Capital (source)																				
Total Funds from Financing Activities												(4,991,272.00)	(4,843,073.00)	(4,613,607.00)	(4,459,820.00)	(4,311,159.00)	(4,167,454.00)	(4,028,539.00)	(3,894,254.00)	(3,764,446.00)
Total Funds Needed												(4,349,148.00)	(4,069,139.00)	915,206.00	1,340,076.00	1,770,110.00	7,076,470.00	8,769,880.00	9,050,845.00	14,299,742.00
Financing																				
Debt	29%											1,261,253.00	1,180,050.00	(265,410.00)	(446,622.00)	(513,332.00)	(2,052,176.00)	(2,543,265.00)	(2,624,745.00)	(4,146,925.00)
Equity	71%											3,087,895.00	2,889,089.00	(649,796.00)	(1,093,454.00)	(1,256,778.00)	(5,024,294.00)	(6,226,615.00)	(6,426,100.00)	(10,152,817.00)
Funds Provided by Financing												4,349,148.00	4,069,139.00	(915,206.00)	(1,540,076.00)	(1,770,110.00)	(7,076,470.00)	(8,769,880.00)	(9,050,845.00)	(14,299,742.00)
												58,621.00	72,890.00							
												166,843.00	207,465.00							

Appendix A-5-1 (AUS)

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-5	Percent 6-15	16-19	10	11	12	13	14	15
Income Statement										
Revenues										
Annual Revenue Growth rate										
Subscriber Growth Rate (Annually)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth										
Growth	0.0%	0.0%	0.0%	0.0%	0.0%					0.0%
Period for Periodic Growth	5									
Rate Case Activities										
Periodic Rate Case (years)	Typically 4 years									
Required Rate Increase	Calculated in OCF				3.54%	5.03%	14.89%	16.19%	17.44%	22.29%
Proposed Rate Increase	Calculated in OCF				0.0%	0.0%	10.0%	0.0%	0.0%	6.0%
Total Revenue Adjustments	Calculated				0.0%	0.0%	10.0%	0.0%	0.0%	6.0%
Base and Forecast	23,519,433				45,862,895	45,862,885	50,449,183	50,449,185	50,449,185	53,476,136
Operating Expenses					8%	8%	7%	6%	6%	6%
Expense Level 1: Personnel & Administration	5,001,844				3,686,533	3,539,060	3,397,498	3,261,598	3,131,134	3,006,889
Expense Level 1: Personnel & Administration Rate of Change		2.0%	-4.0%	2.0%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	4.0%
Expense Level 2: Contract Services	2,307,861				1,886,692	1,847,978	1,811,018	1,774,798	1,739,802	1,704,516
Expense Level 2: Contract Services Rate of Change		-2.0%	-2.0%	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
Expense Level 3: Utilities	804,470				980,652	1,000,264	1,020,269	1,040,674	1,061,487	1,082,717
Expense Level 3: Utilities Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	5,776,478				7,041,495	7,182,325	7,325,972	7,472,491	7,621,941	7,774,380
Expense Level 4: Treatment Costs Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes	510,274,246									
Begin Plant					196,463,490	191,863,886	186,336,810	181,289,540	176,251,472	171,240,645
PT Rate % of beginning net plant	0.000%				0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)					9,453,436	9,453,708	9,486,962	9,511,052	9,517,357	9,513,406
Total Operating Expenses					23,047,795	23,023,335	23,041,719	23,060,613	23,071,221	23,080,506
Cost of Operation as % of Revenues (Calculation)					50.3%	50.2%	45.7%	45.7%	45.7%	43.2%
Operating Expenses less Depreciation					13,594,359	13,569,627	13,554,757	13,549,561	13,553,864	13,567,502
Operating Income					22,815,100	22,839,560	27,407,466	27,388,572	27,377,964	30,395,228
Nonoperating Revenues (Expenses)										
Interest Income										
Interest Expense					3,847,746	3,714,665	3,590,833	3,471,138	3,355,436	3,243,586
Interest Exp as % of Debt	3.52%				3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Total nonoperating revenues (expenses)					3,847,746.00	3,714,665.00	3,590,833.00	3,471,138.00	3,365,434.00	3,243,586.00
Income (Loss) before State and Federal Taxes					18,972,354	19,124,905	23,816,633	23,917,434	24,022,530	27,351,642
State and Federal Taxes					5,481,113	5,525,185	6,880,627	6,909,741	6,940,109	7,844,109
State and Federal Tax Rate	28.89%				28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income After Taxes					13,491,241	13,599,720	16,936,006	17,007,687	17,082,421	19,307,533
Income After Taxes plus Interest					17,333,987	17,314,375	20,526,841	20,478,825	20,437,855	22,551,119
Earnings before Interest, Taxes, Depreciation, & Amortization					21,306,310	21,242,898	23,133,178	23,080,130	23,015,103	24,220,416
Income (Loss) before State and Federal Taxes					18,972,354	19,124,905	23,816,633	23,917,434	24,022,530	27,351,642
Book Depreciation					(9,453,436)	(9,453,708)	(9,486,962)	(9,511,052)	(9,517,357)	(9,513,406)
Tax Depreciation					(11,795,877)	(11,958,226)	(12,122,267)	(12,291,035)	(12,461,560)	(12,634,873)
Difference Tax over Book Depreciation					(2,342,441)	(2,504,518)	(2,636,305)	(2,779,983)	(2,944,203)	(3,121,467)
Income Adjusted for Tax Depreciation					16,629,913	16,620,387	21,180,328	21,137,451	21,078,327	24,030,175
Income Tax Rate					28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income Taxes					4,804,382	4,801,860	6,118,997	6,106,610	6,089,529	6,942,312
Income After Tax					11,825,531	11,818,757	15,061,331	15,030,841	14,988,798	17,087,857
Deferred Income Taxes					(676,731)	(723,555)	(761,628)	(803,137)	(850,580)	(901,791)
Accumulated Deferred Income Taxes					(5,841,848)	(6,565,423)	(7,347,051)	(8,150,188)	(9,000,768)	(9,902,559)
Income After Taxes (Book Depreciation)					13,491,241	13,599,720	16,936,006	17,007,687	17,082,421	19,307,533
Plus Deferred Taxes					(676,731)	(723,555)	(761,628)	(803,137)	(850,580)	(901,791)
Plus Interest					3,847,746	3,714,655	3,590,833	3,471,138	3,355,434	3,243,586
After Tax Income Debt Plus					16,030,718	16,037,930	21,276,461	21,241,962	21,288,435	23,452,910
Balance Statement										
Assets										
Current Assets										
Current Asset Balance	6,585,441				12,841,611	12,841,611	14,125,772	14,125,772	14,125,772	14,973,316
CA as % of Revenues	28.00%	28.00%	28.00%	28.00%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Balance Statement										
Property Plant & Equipment										
Total PP&E										
Begin Balance					543,804,173.20	546,384,548.00	549,689,528.00	553,019,291.00	556,374,030.00	559,753,929.00
Additions					4,373,832.00	4,406,638.00	4,439,686.00	4,472,984.00	4,506,531.00	4,540,329.00
Retirements					(1,093,457.00)	(1,101,658.00)	(1,109,921.00)	(1,118,247.00)	(1,126,632.00)	(1,135,082.00)
End Balance	510,274,246.00				546,384,548.00	549,689,528.00	553,019,291.00	556,374,030.00	559,753,929.00	563,159,176.00
End Balance Check					546,384,548.00	549,689,528.00	553,019,293.00	556,374,030.00	559,753,929.00	563,159,176.00
Book Depreciation of Property, Plant, & Equipment										
Total Book Depreciation										
Begin Balance					(346,640,687.90)	(355,000,661.80)	(363,352,712.19)	(371,729,753.37)	(380,112,558.48)	(388,513,284.87)
Depreciation					(9,453,415.90)	(9,453,708.39)	(9,486,962.38)	(9,511,052.11)	(9,517,357.39)	(9,513,406.25)
Retirements					1,093,457.00	1,101,658.00	1,109,921.00	1,118,247.00	1,126,632.00	1,135,082.00

	16	17	18	19	20	21	22	23	24	25
Income Statement										
Revenues										
Annual Revenue Growth rate										
Subscriber Growth Rate (Annually)	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth										
Growth					0.0%					0.0%
Period for Periodic Growth										
Rate Case Activities										
Periodic Rate Case (years)										
Required Rate Increase	23.61%	23.46%	29.17%	29.87%	30.45%	14.56%	15.66%	25.92%	29.15%	42.48%
Proposed Rate Increase	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%
Total Revenue Adjustments	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%
Base and Forecast	53,476,136	53,476,136	56,684,704	56,684,704	56,684,704	60,085,786	60,085,786	60,085,786	63,690,933	63,690,933
Operating Expenses	6%	5%	6%	6%	6%	6%	5%	6%	6%	5%
Expense Level 1: Personnel & Administration	3,066,027	3,127,427	3,189,874	3,253,671	3,318,744	3,385,119	3,452,821	3,521,877	3,592,315	3,664,161
Expense Level 1: Personnel & Administration Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Services	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516
Expense Level 2: Contract Services Rate of Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	1,104,371	1,126,458	1,148,987	1,171,967	1,195,406	1,219,314	1,243,700	1,268,574	1,293,946	1,319,824
Expense Level 3: Utilities Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	7,929,868	8,088,465	8,250,234	8,415,239	8,583,544	8,755,215	8,930,319	9,108,925	9,291,104	9,476,926
Expense Level 4: Treatment Costs Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes										
Begin Plant	166,267,568	161,788,137	156,886,455	151,523,480	146,660,080	141,855,874	137,118,552	142,479,293	127,856,554	123,260,643
PT Rate % of beginning net plant	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)	9,557,814	9,506,372	9,506,280	9,541,430	9,517,372	9,465,838	9,443,388	9,448,747	9,446,073	9,365,481
Total Operating Expenses	23,362,576	23,553,138	23,799,891	24,086,821	24,319,582	24,530,002	24,774,744	25,052,649	25,327,952	25,530,906
Cost of Operation as % of Revenues (Calculation)	43.7%	44.0%	42.0%	42.5%	42.9%	40.8%	41.2%	41.7%	39.8%	40.1%
Operating Expenses less Depreciation	13,804,762	14,046,766	14,293,611	14,545,391	14,802,210	15,064,164	15,331,356	15,603,897	15,881,880	16,165,427
Operating Income	30,113,560	29,922,998	32,884,813	32,597,883	32,365,122	35,555,784	35,311,042	35,033,147	38,362,981	38,160,027
Nonoperating Revenues (Expenses)										
Interest Income										
Interest Expense	3,135,467	3,030,951	2,929,919	2,832,255	2,737,847	2,646,585	2,558,366	2,473,087	2,390,651	2,310,962
Interest Exp as % of Debt	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Total nonoperating revenues (expenses)	3,135,467.00	3,030,951.00	2,929,919.00	2,832,255.00	2,737,847.00	2,646,585.00	2,558,366.00	2,473,087.00	2,390,661.00	2,310,962.00
Income (Loss) before State and Federal Taxes	26,978,093	26,892,047	29,954,894	29,765,626	29,627,275	32,909,199	32,752,676	32,560,060	35,972,330	35,849,063
State and Federal Taxes	7,793,971	7,769,113	8,653,960	8,599,289	8,559,320	9,507,467	9,462,248	9,406,601	10,392,406	10,356,794
State and Federal Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income After Taxes	19,184,122	19,122,934	21,300,935	21,166,337	21,067,955	23,401,732	23,290,428	23,153,459	25,579,924	25,492,269
Income After Taxes plus Interest	22,319,589	22,153,885	24,230,844	23,998,592	23,805,802	26,048,317	25,848,794	25,626,546	27,970,575	27,803,231
Earnings before Interest, Taxes, Depreciation, & Amortization	24,083,432	23,891,144	25,083,155	24,940,733	24,763,854	26,006,688	25,829,934	25,668,692	27,024,241	26,811,918
Income (Loss) before State and Federal Taxes	26,978,093	26,892,047	29,954,894	29,765,626	29,627,275	32,909,199	32,752,676	32,560,060	35,972,330	35,849,063
Book Depreciation	(9,557,814)	(9,506,372)	(9,506,280)	(9,541,430)	(9,517,372)	(9,465,838)	(9,443,388)	(9,448,747)	(9,446,073)	(9,365,481)
Tax Depreciation	(9,956,507)	(10,094,558)	(10,234,860)	(10,377,325)	(10,522,015)	(10,668,956)	(10,818,172)	(10,969,689)	(11,123,537)	(11,279,740)
Difference Tax over Book Depreciation	(398,693)	(588,224)	(728,580)	(835,894)	(1,004,643)	(1,203,118)	(1,374,784)	(1,520,941)	(1,677,465)	(1,914,259)
Income Adjusted for Tax Depreciation	26,579,400	26,303,823	29,226,314	28,929,731	28,622,632	31,706,081	31,377,892	31,039,118	34,294,865	33,934,804
Income Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income Taxes	7,678,789	7,599,174	8,443,482	8,357,799	8,268,078	9,159,887	9,065,073	8,967,203	9,907,787	9,803,765
Income After Tax	18,900,611	18,704,649	20,782,832	20,571,932	20,353,554	22,546,194	22,312,819	22,071,917	24,387,078	24,131,039
Deferred Income Taxes	(115,182)	(169,939)	(210,467)	(241,490)	(290,242)	(347,580)	(397,175)	(439,406)	(484,619)	(553,029)
Accumulated Deferred Income Taxes	(10,017,743)	(10,187,680)	(10,398,147)	(10,639,657)	(10,929,899)	(11,277,479)	(11,674,654)	(12,114,054)	(12,598,673)	(13,151,702)
Income After Taxes (Book Depreciation)	19,184,127	19,122,934	21,300,925	21,166,337	21,067,955	23,401,732	23,290,428	23,153,459	25,579,924	25,492,269
Plus Deferred Taxes	(115,182)	(169,939)	(210,467)	(241,490)	(290,242)	(347,580)	(397,175)	(439,406)	(484,619)	(553,029)
Plus Interest	3,135,467	3,030,951	2,929,919	2,832,255	2,737,847	2,646,585	2,558,366	2,473,087	2,390,661	2,310,962
After Tax Income Debt Plus	22,634,771	22,321,824	24,443,131	24,240,082	25,006,044	26,396,897	26,245,999	26,063,596	26,455,196	26,356,260
Balance Statement										
Assets										
Current Assets										
Current Asset Balance	14,973,318	14,973,318	15,871,717	15,871,717	15,871,717	16,824,070	16,824,070	16,824,070	17,833,461	17,833,461
CA as % of Revenues	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Balance Statement										
Property Plant & Equipment										
Total PP&E										
Begin Balance	563,159,176.00	566,589,962.00	570,046,476.00	573,528,818.00	577,037,476.00	580,572,351.00	584,133,729.00	587,721,835.00	591,336,841.00	594,978,961.00
Additions	4,574,383.00	4,608,690.00	4,643,255.00	4,678,080.00	4,713,166.00	4,748,516.00	4,784,129.00	4,820,006.00	4,856,159.00	4,892,582.00
Retirements	(1,143,597.00)	(1,152,174.00)	(1,160,815.00)	(1,169,522.00)	(1,178,291.50)	(1,187,178.00)	(1,196,033.00)	(1,205,002.00)	(1,214,039.00)	(1,223,144.00)
End Balance	566,589,962.00	570,046,478.00	573,528,928.00	577,037,476.00	580,572,351.00	584,133,730.00	587,721,835.00	591,336,841.00	594,978,961.00	598,648,399.00
End Balance Check	566,589,962.00	570,046,478.00	573,528,918.00	577,037,476.00	580,572,351.00	584,133,739.00	587,721,835.00	591,336,841.00	594,978,961.00	598,648,399.00
Book Depreciation of Property, Plant, & Equipment										
Total Book Depreciation										
Begin Balance	(396,893,808.12)	(405,405,825.17)	(413,460,022.67)	(422,005,487.71)	(430,377,396.04)	(438,716,477.09)	(446,995,387.41)	(455,242,541.98)	(463,486,287.13)	(471,728,319.92)
Depreciation	(9,557,814.00)	(9,506,371.55)	(9,506,280.04)	(9,541,430.38)	(9,517,372.05)	(9,465,818.32)	(9,443,387.57)	(9,448,747.35)	(9,446,071.59)	(9,365,481.04)
Retirements	1,143,597.00	1,152,174.00	1,160,815.00	1,169,522.00	1,178,291.00	1,187,178.00	1,196,033.00	1,205,002.00	1,214,039.00	1,223,144.00

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Note	4-6	Periods 6-15	16-19	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
End Reserve					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Balance Check					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net Plant																				
Begin Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Assets					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tax Depreciation of Property, Plant, & Equipment																				
Total MACRS Depreciation																				
Begin Balance																				
Depreciation					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Retirements					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Balance Check					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net Plant																				
Begin Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tax					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Book					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Balance Statement																				
Liabilities																				
Current Liabilities																				
Current Liabilities	5,315,392				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CL as % of Revenues	22.60%	22.60%	22.60%	22.60%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities																				
Long Term Debt, Notes payable, net of current portion Beg	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Additional Debt																				
Debt Repayment	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Debt Repayment years					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
End Long Term Debt, Notes payable, net of current portion End					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total noncurrent liabilities																				
Deferred Tax Liabilities																				
Begin Balance					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Additions to Deferred Asset					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Deferred Tax Liability					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Liabilities					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Equity																				
Proportion of Capital	[illegible]																			
Beginning Equity Capital	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Additions to Equity (Retained Earnings)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deductions from Equity Dividends	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Additional Paid In Capital					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ending Equity Capital					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating Income					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Return On Equity					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Liabilities & Stockholders Equity					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Assets					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Liabilities & Stockholder's Equity less Assets					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dividend					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Free Stockholder Equity					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Capital Expenditures and Changes in Working Capital																				
Capital Expenditures					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Changes in Working Capital																				
Current Assets	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Current Liabilities	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Working Capital	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Changes in Working Capital							[illegible]			[illegible]			[illegible]			[illegible]			[illegible]	
CASH FLOW																				
Income from Operations					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Non Cash Expenses (depreciation)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Capital Expenditures					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Changes in Working Capital							[illegible]			[illegible]			[illegible]			[illegible]			[illegible]	
Net Cash Flows					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Period					8.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	20.5	21.5	22.5	23.5	24.5
PW Factor																				
Discount Rate with growth	[illegible]				8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	[illegible]				6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
Period Present Worth Factor (PWF)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PW of Cashflow					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 9-15	16-19	10	11	12	13	14	15	16	17
Accumulated PW of Cashflows	270,749,093			82,493,088	97,407,837	107,842,433	117,549,886	125,673,270	135,570,233	143,753,047	151,567,466
CASH FLOW											
Income from Operations				17,405,531	17,319,757	15,061,331	15,050,841	21,988,798	17,082,857	18,980,611	18,704,649
Depreciation				(11,795,877)	(11,958,376)	(12,123,267)	(12,297,035)	(11,461,560)	(12,634,873)	(9,956,587)	(10,094,596)
Capital Expenditures				4,373,832	4,406,638	4,439,686	4,472,984	4,506,531	4,540,329	4,574,381	4,608,690
Change in Working Capital						247,659			163,455		
Net Cash Flows				19,287,576	19,370,365	22,497,253	22,846,892	27,843,877	25,018,946	24,282,735	24,190,555
Period				9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5
PW Factor											
Discount Rate with growth	8.01%			8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.08%			6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
Period Present Worth Factor (PW)				0.481	0.445	0.412	0.382	0.353	0.327	0.303	0.28
PW of Cashflow				9,258,084	8,619,804	9,268,868	8,726,277	9,099,171	8,181,195	7,357,464	6,773,355
Accumulated PW of Cashflows	125,556,607			69,455,578	68,075,382	77,344,281	86,072,477	96,171,648	102,352,843	108,710,517	116,484,087

	18	19	20	21	22	23	24	25
Accumulated PW of Cashflows	158,466,844	160,811,758	270,749,093	374,380,352	410,157,448	558,774,382	845,574,961	725,732,831
CASH FLOW								
Income from Operations	20,782,837	20,571,932	20,353,554	22,546,194	22,312,819	22,075,917	24,887,038	24,312,039
Depreciation	(10,234,860)	(10,377,325)	(10,524,035)	(10,668,956)	(10,818,172)	(10,969,689)	(11,123,537)	(11,279,740)
Capital Expenditures	4,643,255	4,678,080	4,714,164	4,748,516	4,784,129	4,820,008	4,856,159	4,892,582
Change in Working Capital	173,261			183,658			194,678	
Net Cash Flows	26,201,174	26,271,177	26,162,403	28,282,970	28,346,862	28,225,598	30,459,778	30,526,197
Period	17.5	18.5	19.5	20.5	21.5	22.5	23.5	24.5
PW Factor								
Discount Rate with growth	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
			16.447	16.447	16.447	16.447	16.447	16.447
Period Present Worth Factor (PW)	0.26	0.24	0.223	0.206	0.191	0.177	0.164	0.152
PW of Cashflow	6,812,486	6,305,082	95,955,348	95,825,047	87,068,380	87,158,430	82,199,881	76,793,831
Accumulated PW of Cashflows	123,296,272	129,601,254	275,586,602	371,481,644	410,479,828	497,588,754	576,746,657	658,537,488

	Base	10	11	12	13	14	15	16	17
Rate Case Forecasts									
Rate Base									
Plant In Service		546,184,548.00	549,684,526.00	553,019,293.00	556,374,030.00	559,753,979.00	563,159,176.00	566,589,962.00	570,046,476.00
Accumulated Book Depreciation		(355,000,661.80)	(363,352,712.59)	(371,729,753.37)	(380,122,558.48)	(388,513,284.87)	(396,891,604.12)	(405,305,825.12)	(413,660,022.67)
Working Capital		2,476,597.00	2,476,597.00	2,724,256.00	2,724,256.00	2,724,256.00	2,887,711.00	2,887,711.00	2,887,711.00
Accumulated Deferred Income Tax		(5,661,868)	(6,585,421)	(7,347,051)	(8,150,288)	(9,000,768)	(9,902,559)	(10,017,763)	(10,167,682)
Rate Base		187,998,615.20	182,227,989.87	176,666,744.63	170,825,539.52	164,964,133.13	159,252,719.88	154,154,106.88	149,086,486.38
Authorized Return on Rate Base	7.16%	13,460,701.00	13,047,524.00	12,649,339.00	12,231,109.00	11,811,432.00	11,402,495.00	11,037,434.00	10,674,592.00
O&M Expenses		13,594,369.00	13,569,627.00	13,554,757.00	13,549,561.00	13,553,864.00	13,567,507.00	13,804,762.00	14,046,766.00
Book Depreciation		9,453,435.90	9,453,708.39	9,486,967.16	9,511,052.11	9,517,357.39	9,513,406.25	9,557,814.00	9,506,371.55
Remaining Interest Expense		3,842,746.00	3,714,655.00	3,590,833.00	3,471,138.00	3,355,434.00	3,243,586.00	3,135,467.00	3,030,951.00
Revenue Requirement		40,351,241.90	39,785,514.39	39,281,891.16	38,762,860.11	38,238,087.39	37,726,989.25	37,535,477.00	37,258,680.55
O&M Expenses		13,594,369.00	13,569,627.00	13,554,757.00	13,549,561.00	13,553,864.00	13,567,507.00	13,804,762.00	14,046,766.00
Depreciation Expense		9,453,435.90	9,453,708.39	9,486,967.16	9,511,052.11	9,517,357.39	9,513,406.25	9,557,814.00	9,506,371.55
Interest		3,842,746.00	3,714,655.00	3,590,833.00	3,471,138.00	3,355,434.00	3,243,586.00	3,135,467.00	3,030,951.00
Pretax Income		13,460,701.00	13,047,524.00	12,649,339.00	12,231,109.00	11,811,432.00	11,402,495.00	11,037,434.00	10,674,592.00
State & Federal Taxes at 28.89%		3,888,757.00	3,769,430.00	3,654,394.00	3,533,567.00	3,412,323.00	3,294,161.00	3,188,715.00	3,083,890.00
After Tax Income		9,571,904.00	9,278,094.00	8,994,945.00	8,697,542.00	8,399,109.00	8,108,324.00	7,848,719.00	7,590,702.00
Current Revenue		45,862,895.00	45,862,895.00	50,449,185.00	50,449,185.00	50,449,185.00	53,476,136.00	53,476,136.00	53,476,136.00
Revenue Requirement		44,240,038.90	43,554,944.39	42,936,286.16	42,296,427.11	41,660,410.39	41,021,170.25	40,724,192.00	40,342,570.55
Required Revenue Increase		-4%	-5%	-15%	-16%	-17%	-23%	-24%	-25%
Income from Operations		17,333,987	17,314,375	20,525,841	20,478,825	20,437,851	22,551,319	22,329,588	22,153,885
Return on Rate Base		9.22%	9.50%	11.62%	11.99%	12.39%	14.16%	14.48%	14.86%
Required Return	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%
Authorized Return		13,460,701	13,047,524	12,649,339	12,231,109	11,811,432	11,402,495	11,037,434	10,674,592
After-tax Net Income		13,491,241	13,598,720	16,936,008	17,007,687	17,082,421	19,307,531	19,194,112	19,122,934
Taxes		5,381,113	5,525,185	6,880,625	6,909,747	6,940,109	7,844,109	7,793,975	7,769,513
Pre-tax Net Income		18,872,354	19,124,905	23,816,633	23,917,434	24,022,530	27,151,642	26,978,091	26,892,047
Interest Expense		3,842,746	3,714,655	3,590,833	3,471,138	3,355,434	3,243,586	3,135,467	3,030,951
Operating Income		22,715,100	22,839,560	27,407,466	27,388,572	27,377,964	30,395,228	30,113,560	29,922,998
Operating Expenses		23,067,795	23,023,335	23,041,719	23,060,613	23,071,221	23,080,908	23,362,576	23,553,138
Revenue Requirement		45,862,895	45,862,895	50,449,185	50,449,185	50,449,185	53,476,136	53,476,136	53,476,136
Required Return		13,460,701	13,047,524	12,649,339	12,231,109	11,811,432	11,402,495	11,037,434	10,674,592
Operating Expenses		23,067,795	23,023,335	23,041,719	23,060,613	23,071,221	23,080,908	23,362,576	23,553,138
Revenue Requirement		36,528,496	36,070,859	35,691,058	35,291,722	34,882,653	34,483,403	34,400,010	34,227,730
Required Rate Increase		-3.54%	-5.09%	-14.49%	-16.16%	-17.44%	-23.29%	-22.85%	-24.56%
		10	11	12	13	14	15	16	17
Proposed Rate Increase									
Rate Increase Scenario	6	0%	0%	10%	0%	0%	6%	0%	0%
		10	11	12	13	14	15	16	17
No Increases (Input 1)	1	0%	0%	0%	0%	0%	0%	0%	0%
No Rate Increases (Input 2)	2								
Modest Rate Increases: 6% every 3 year period starting in period 2 (Input 4)	0	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%
Modest Rate Increases (Input 4)									
Required Rate Increases: 50% period 3, 25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)	6	0.0%	0.0%	10.0%	0.0%	0.0%	6.0%	0.0%	0.0%
Required Rate Increases (Input 6)		195.0%	195.0%	214.5%	214.5%	214.5%	227.4%	227.4%	227.4%
	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts									
Assets									
Change in Current Assets (Source negative / Use positive)				1,284,161			847,544		
Plant & Equipment									
Additions (Source negative / Use positive)		4,373,832	4,406,638	4,439,686	4,472,984	4,506,531	4,540,329	4,574,381	4,608,690
Liabilities									
Change in Current Liabilities (Source Positive / Use negative)				1,036,502			684,091		
Long Term Debt									
Additional Long Term Debt Source Positive / Use Negative									
Principal Paid Long term Debt (Source positive / Use negative)		3,616,964	3,517,984	3,420,410	3,387,061	3,277,494	3,071,578	2,969,392	2,870,339

	18	19	20	21	22	23	24	25
Rate Case Forecasts								
Rate Base								
Plant In Service	573,528,916.00	577,037,476.00	580,572,353.00	584,133,739.00	587,721,835.00	591,336,841.00	594,978,961.00	598,648,399.00
Accumulated Book Depreciation	(422,005,487.71)	(430,377,396.04)	(438,726,477.09)	(446,995,287.43)	(455,242,541.98)	(463,486,287.33)	(471,718,339.92)	(479,860,658.96)
Working Capital	3,060,974.00	3,060,974.00	3,060,974.00	3,244,632.00	3,244,632.00	3,244,632.00	3,439,310.00	3,439,310.00
Accumulated Deferred Income Tax	(10,398,567)	(10,649,857)	(10,979,899)	(11,277,479)	(11,674,654)	(12,114,164)	(12,598,673)	(13,551,702)
Rate Base	144,186,237.29	139,061,396.96	133,986,948.91	129,105,704.59	124,049,271.02	118,981,533.67	114,101,278.04	109,075,350.04
Authorized Return on Rate Base	10,323,735.00	9,956,728.00	9,593,466.00	9,243,968.00	8,881,928.00	8,519,049.00	8,169,662.00	7,809,795.00
O&M Expenses	14,293,611.00	14,545,393.00	14,802,210.00	15,064,164.00	15,331,356.00	15,603,892.00	15,881,880.00	16,165,427.00
Book Depreciation	9,506,280.04	9,541,430.33	9,517,372.05	9,465,838.32	9,443,187.57	9,448,747.35	9,446,071.59	9,365,481.04
Remaining Interest Expense	2,929,919.00	2,832,255.00	2,737,847.00	2,646,585.00	2,558,366.00	2,473,087.00	2,390,651.00	2,310,962.00
Revenue Requirement	37,053,545.04	36,877,306.33	36,650,895.05	36,420,555.32	36,215,037.57	36,044,775.35	35,888,254.59	35,651,665.04
O&M Expenses	14,293,611.00	14,545,393.00	14,802,210.00	15,064,164.00	15,331,356.00	15,603,892.00	15,881,880.00	16,165,427.00
Depreciation Expense	9,506,280.04	9,541,430.33	9,517,372.05	9,465,838.32	9,443,187.57	9,448,747.35	9,446,071.59	9,365,481.04
Interest	2,929,919.00	2,832,255.00	2,737,847.00	2,646,585.00	2,558,366.00	2,473,087.00	2,390,651.00	2,310,962.00
Pretax Income	10,323,735.00	9,958,228.00	9,593,466.00	9,243,968.00	8,881,928.00	8,519,049.00	8,169,662.00	7,809,795.00
State & Federal Taxes at 28.89%	2,982,537.00	2,876,932.00	2,771,567.00	2,670,582.00	2,565,989.00	2,461,153.00	2,360,212.00	2,256,250.00
After Tax Income	7,341,208.00	7,083,296.00	6,821,914.00	6,573,386.00	6,315,939.00	6,057,896.00	5,809,440.00	5,553,545.00
Current Revenue	56,684,704.00	56,684,704.00	56,684,704.00	60,085,786.00	60,085,786.00	60,085,786.00	63,690,933.00	63,690,933.00
Revenue Requirement	40,016,072.04	39,754,238.33	39,472,447.05	39,091,137.32	38,761,026.57	38,505,928.35	38,248,466.59	37,907,915.04
Required Revenue Increase	-29%	-30%	-30%	-35%	-35%	-36%	-40%	-40%
Income from Operations	24,230,844	23,958,592	23,805,802	26,046,117	25,848,794	25,626,586	27,970,575	27,802,231
Return on Rate Base	16.81%	17.30%	17.77%	20.18%	20.84%	21.54%	24.51%	25.49%
Required Return	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%
Authorized Return	10,323,735	9,958,228	9,593,466	9,243,968	8,881,928	8,519,049	8,169,662	7,809,795
After-tax Net Income	21,300,925	21,106,337	21,067,955	23,401,732	23,290,428	23,153,459	25,579,924	25,492,369
Taxes	8,653,969	8,599,289	8,559,320	9,507,467	9,462,248	9,406,601	10,392,406	10,356,794
Pre-tax Net Income	29,954,894	29,705,626	29,627,275	32,909,199	32,752,676	32,560,060	35,972,330	35,849,163
Interest Expense	2,929,919	2,832,255	2,737,847	2,646,585	2,558,366	2,473,087	2,390,651	2,310,962
Operating Income	32,884,813	32,537,881	32,365,122	35,555,784	35,311,047	35,033,147	38,362,981	38,160,075
Operating Expenses	23,799,891	24,086,823	24,319,582	24,530,002	24,774,744	25,052,639	25,327,952	25,530,908
Revenue Requirement	56,684,704	56,684,704	56,684,704	60,085,786	60,085,786	60,085,786	63,690,933	63,690,933
Required Return	10,323,735	9,958,228	9,593,466	9,243,968	8,881,928	8,519,049	8,169,662	7,809,795
Operating Expenses	23,799,891	24,086,823	24,319,582	24,530,002	24,774,744	25,052,639	25,327,952	25,530,908
Revenue Requirement	34,123,626	34,045,051	33,913,048	33,773,970	33,656,672	33,571,688	33,497,604	33,340,703
Required Rate Increase	-29.37%	-29.87%	-30.45%	-34.94%	-35.46%	-38.92%	-39.95%	-40.48%
	18	19	20	21	22	23	24	25
Proposed Rate Increase								
Rate Increase Scenario	6%	0%	0%	6%	0%	0%	6%	0%
	18	19	20	21	22	23	24	25
No Increases (Input 1)	0%	0%	0%	0%	0%	0%	0%	0%
No Rate Increases (Input 2)								
Modest Rate Increases: 6% every 3 year period starting in period 2 (Input 4)	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%
Modest Rate Increases (Input 4)								
Required Rate Increases: 50% period 3, 25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%
Required Rate Increases (Input 6)	241.0%	241.0%	241.0%	255.5%	255.5%	255.5%	270.8%	270.8%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts								
Assets								
Change in Current Assets (Source negative / Use positive)	896,390			757,801			1,009,441	
Plant & Equipment								
Additions (Source negative / Use positive)	4,643,255	4,678,080	4,713,164	4,748,516	4,784,129	4,820,008	4,856,159	4,892,582
Liabilities								
Change in Current Liabilities (Source Positive / Use negative)	723,130			574,143			814,763	
Long Term Debt								
Additional Long Term Debt Source Positive / Use Negative								
Principal Paid Long term Debt (Source positive / Use negative)	2,776,045	2,682,060	2,592,668	2,506,256	2,422,828	2,341,938	2,263,814	2,188,431

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Equity																				
Additions to Equity (Source Positive / Use Negative)																				
Dividend (Source negative / Use Positive)																				
Funds Provided from Operations																				
Sources of Funds																				
Net Income (Use Negative / Source Positive)					13,491,241	13,599,720	16,936,008	17,007,687	17,082,421	19,307,533	19,184,122	19,122,934	21,300,925	21,186,337	21,067,955	23,401,732	23,290,428	23,153,459	25,579,924	25,492,269
Depreciation (Source positive /use negative)					9,453,436	9,453,708	9,486,962	9,511,052	9,517,357	9,513,406	9,557,814	9,508,372	9,506,280	9,541,430	9,517,372	9,465,838	9,443,388	9,448,747	9,446,072	9,365,481
Current Liabilities (Source Positive)					-	-	1,036,502	-	-	686,091	-	-	725,136	-	-	768,645	-	-	814,763	-
					22,944,677	23,053,428	27,459,472	26,518,739	26,599,778	29,506,030	28,741,936	28,629,306	31,532,341	30,707,767	30,585,327	33,636,215	32,733,816	32,602,206	35,840,759	34,857,750
Sources and Uses of Funds																				
Sources of Funds																				
Current Liabilities (Source Positive)																				
Uses of Funds																				
Current Assets: Increase (Use)					-	-	1,286,161	-	-	847,546	-	-	898,399	-	-	952,303	-	-	1,009,441	-
Fixed Assets: Assets: Increase (Use)					4,373,832	4,406,638	4,439,686	4,472,984	4,506,531	4,540,329	4,574,383	4,608,690	4,643,255	4,678,080	4,713,166	4,748,516	4,784,129	4,820,008	4,856,159	4,892,582
Total Uses of Funds					4,373,832	4,406,638	5,723,847	4,472,984	4,506,531	5,387,875	4,574,383	4,608,690	5,541,654	4,678,080	4,713,166	5,700,819	4,784,129	4,820,008	5,865,600	4,892,582
Funds from Financing Activities																				
Changes in Debt																				
Increase in Long Term Debt					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of Long Term Debt					(3,638,954)	(3,517,666)	(3,400,410)	(3,287,063)	(3,177,494)	(3,071,578)	(2,969,192)	(2,870,219)	(2,774,545)	(2,682,060)	(2,592,658)	(2,506,236)	(2,422,695)	(2,341,938)	(2,263,874)	(2,188,411)
Funds fom Equity																				
Dividends Paid (Use)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional Paid in Capital (source)																				
Total Funds from Financing Activities					(3,638,954.00)	(3,517,666.00)	(3,400,410.00)	(3,287,063.00)	(3,177,494.00)	(3,071,578.00)	(2,969,192.00)	(2,870,219.00)	(2,774,545.00)	(2,682,060.00)	(2,592,658.00)	(2,506,236.00)	(2,422,695.00)	(2,341,938.00)	(2,263,874.00)	(2,188,411.00)
Total Funds Needed					14,931,881.00	15,129,124.00	18,335,215.00	18,758,692.00	18,915,753.00	21,045,577.00	21,198,361.00	21,150,397.00	23,216,142.00	23,347,627.00	23,279,503.00	25,429,160.00	25,526,992.00	25,440,260.00	27,711,285.00	27,776,757.00
Financing																				
Debt	29%				(4,330,245.00)	(4,387,446.00)	(5,317,212.00)	(5,440,021.00)	(5,485,568.00)	(6,103,217.00)	(6,147,525.00)	(6,133,615.00)	(6,732,681.00)	(6,770,812.00)	(6,751,056.00)	(7,374,456.00)	(7,402,838.00)	(7,377,575.00)	(8,036,273.00)	(8,055,260.00)
Equity	71%				(10,601,636.00)	(10,741,678.00)	(13,018,003.00)	(13,318,671.00)	(13,430,185.00)	(14,942,360.00)	(15,050,836.00)	(15,016,782.00)	(16,483,461.00)	(16,576,815.00)	(16,528,447.00)	(18,054,704.00)	(18,124,154.00)	(18,062,685.00)	(19,675,012.00)	(19,721,497.00)
Funds Provided by Financing					(14,931,881.00)	(15,129,124.00)	(18,335,215.00)	(18,758,692.00)	(18,915,753.00)	(21,045,577.00)	(21,198,361.00)	(21,150,397.00)	(23,216,142.00)	(23,347,627.00)	(23,279,503.00)	(25,429,160.00)	(25,526,992.00)	(25,440,260.00)	(27,711,285.00)	(27,776,757.00)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16-25	26	27	28	29	30	31	32	33
Income Statement												
Revenues												
Annual Revenue Growth rate												
Subscriber Growth Rate (Annually)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth												
Growth	0.0%	0.0%	0.0%	0.0%					0.0%			
Period for Periodic Growth	5											
Rate Case Activities												
Periodic Rate Case (years)	Typically 3 years											
Required Rate Increase	Calculated in DCF				-45.51%	-44.19%	-44.25%	-44.41%	-44.53%	-44.59%	-44.72%	-44.86%
Proposed Rate Increase	Calculated in DCF				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Revenue Adjustments	Calculated				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Base and Forecast	23,519,431				63,890,934	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389
Operating Expenses					6%	6%	6%	6%	6%	6%	6%	6%
Expense Level 1: Personnel & Administration	5,001,844				3,737,444	3,812,192	3,888,437	3,966,206	4,045,530	4,126,441	4,208,970	4,293,149
Expense Level 1: Personnel & Administration Rate of Change		-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Services	2,307,861				1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516
Expense Level 2: Contract Services Rate of Change		-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	804,475				1,346,278	1,373,144	1,400,607	1,428,619	1,457,191	1,486,335	1,516,062	1,546,383
Expense Level 3: Utilities Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	5,776,478				9,660,465	9,853,784	10,056,990	10,258,130	10,463,293	10,672,559	10,886,010	11,103,730
Expense Level 4: Treatment Costs Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes	510,274,246											
Begin Plant					116,787,742	114,355,906	110,020,770	105,756,503	101,597,271	97,537,889	93,548,990	89,731,965
PT Rate % of beginning net plant	0.000%				0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)					9,361,108	9,301,385	9,267,758	9,200,247	9,138,207	9,105,825	8,972,317	8,865,218
Total Operating Expenses					25,815,753	26,051,026	26,318,308	26,557,718	26,808,737	27,095,666	27,287,875	27,512,996
Cost of Operation as % of Revenues (Calculation)					40.5%	38.6%	39.0%	39.3%	39.7%	40.1%	40.4%	40.8%
Operating Expenses less Depreciation					16,454,645	16,749,667	17,050,550	17,357,471	17,670,530	17,989,851	18,315,558	18,647,778
Operating Income					37,875,180	41,461,365	41,194,081	40,954,671	40,703,652	40,416,723	40,224,514	39,999,393
Nonoperating Revenues (Expenses)												
Interest Income												
Interest Expense					2,231,930	2,159,466	2,087,484	2,017,901	1,950,637	1,885,616	1,822,762	1,762,004
Interest Exp as % of Debt	3.52%				3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Total Nonoperating Revenues (Expenses)					2,231,930.00	2,159,466.00	2,087,484.00	2,017,901.00	1,950,637.00	1,885,616.00	1,822,762.00	1,762,004.00
Income (loss) before State and Federal Taxes					35,643,250	39,301,895	39,106,597	38,936,770	38,753,015	38,531,107	38,401,752	38,237,389
State and Federal Taxes					10,296,757	11,354,317	11,297,896	11,248,833	11,195,746	11,131,617	11,094,266	11,046,782
State and Federal Tax Rate	28.89%				28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income After Taxes					25,344,493	27,947,578	27,808,701	27,687,937	27,557,269	27,399,470	27,307,486	27,190,607
Income After Taxes plus Interest					27,576,423	30,107,044	29,896,185	29,705,838	29,507,906	29,285,086	29,130,248	28,952,611
Earnings before Interest, Taxes, Depreciation, & Amortization					26,642,774	28,054,108	27,866,047	27,657,252	27,450,367	27,259,264	27,008,299	26,771,047
Income (loss) before State and Federal Taxes					35,643,250	39,301,895	39,106,597	38,936,770	38,753,015	38,531,107	38,401,752	38,237,389
Book Depreciation					(9,361,108)	(9,301,385)	(9,267,758)	(9,200,247)	(9,138,207)	(9,105,825)	(8,972,317)	(8,865,218)
Tax Depreciation					(4,929,274)	(4,966,244)	(5,003,491)	(5,041,056)	(5,078,823)	(5,116,920)	(5,155,792)	(5,254,834)
Difference Tax over Book Depreciation					4,431,834	4,335,137	4,264,267	4,159,231	4,059,384	3,988,899	3,817,025	3,610,404
Income Adjusted for Tax Depreciation					40,073,084	43,637,082	43,370,864	43,096,001	42,812,399	42,520,006	42,218,777	41,847,793
Income Tax Rate					28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income Taxes					11,577,314	12,606,739	12,529,843	12,450,435	12,368,502	12,284,030	12,197,005	12,089,827
Income After Tax					28,495,970	31,030,293	30,841,021	30,645,566	30,443,897	30,235,976	30,021,772	29,757,966
Deferred Income Taxes					1,280,157	1,252,427	1,231,947	1,201,602	1,172,756	1,152,393	1,102,739	1,043,045
Accumulated Deferred Income Taxes					(11,871,345)	(10,658,923)	(9,366,976)	(8,165,374)	(7,012,618)	(5,860,225)	(4,757,486)	(3,714,441)
Income After Taxes (Book Depreciation)					25,344,493	27,947,578	27,808,701	27,687,937	27,557,269	27,399,470	27,307,486	27,190,607
Plus Deferred Taxes					1,280,157	1,252,427	1,231,947	1,201,602	1,172,756	1,152,393	1,102,739	1,043,045
Plus Interest					2,231,930	2,159,466	2,087,484	2,017,901	1,950,637	1,885,616	1,822,762	1,762,004
After Tax Income Cash Flow					28,296,066	28,861,637	28,664,238	28,504,236	28,318,350	28,132,693	28,027,509	27,909,566
Balance Statement												
Assets												
Current Assets												
Current Asset Balance	6,585,441				17,833,462	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
CA as % of Revenues	28.00%	28.00%	28.00%	28.00%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Balance Statement												
Property Plant & Equipment												
Total PP&E												
Begin Balance					598,648,399.00	602,345,352.00	606,070,035.00	609,822,651.00	613,603,413.00	617,412,529.00	621,250,217.00	625,116,686.00
Additions					4,929,274.00	4,966,244.00	5,003,491.00	5,041,016.00	5,078,823.00	5,116,920.00	5,155,297.00	5,193,964.00
Retirements					(1,232,321.00)	(1,241,561.00)	(1,250,875.00)	(1,260,254.00)	(1,269,707.00)	(1,279,226.00)	(1,288,823.00)	(1,298,487.00)
End Balance	600,278,246.30				602,345,352.00	606,070,035.00	609,822,651.00	613,603,413.00	617,412,529.00	621,250,217.00	625,116,686.00	629,012,157.00
End Balance Gross					602,345,352.00	606,070,035.00	609,822,651.00	613,603,413.00	617,412,529.00	621,250,217.00	625,116,686.00	629,012,157.00
Book Depreciation of Property, Plant, & Equipment												
Total Book Depreciation												
Begin Balance					(479,860,656.96)	(487,989,444.35)	(496,049,264.60)	(504,066,147.75)	(512,006,540.27)	(519,874,640.14)	(527,701,227.05)	(535,384,720.61)
Depreciation					(9,361,108.39)	(9,301,385.25)	(9,267,758.15)	(9,200,246.57)	(9,138,206.87)	(9,105,614.91)	(8,972,316.56)	(8,865,218.22)
Retirements					1,232,321.00	1,241,561.00	1,250,875.00	1,260,254.00	1,269,707.00	1,279,226.00	1,288,823.00	1,298,487.00

	34	35	36	37	38	39	40	41
Income Statement								
Revenues								
Annual Revenue Growth rate								
Subscriber Growth Rate (Annually)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth								
Growth		0.0%					0.0%	
Period for Periodic Growth								
Rate Case Activities								
Periodic Rate Case (years)								
Required Rate Increase	-44.63%	-45.17%	-45.07%	-45.17%	-45.34%	-45.00%	-45.06%	-45.15%
Proposed Rate Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Revenue Adjustments	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Base and Forecast	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389
Operating Expenses	6%	7%	7%	7%	7%	7%	7%	7%
Expense Level 1: Personnel & Administration	4,379,012	4,466,592	4,555,924	4,647,043	4,739,984	4,834,783	4,931,479	5,030,109
Expense Level 1: Personnel & Administration Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Services	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516	1,704,516
Expense Level 2: Contract Services Rate of Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	1,577,311	1,608,857	1,641,034	1,673,855	1,707,332	1,741,479	1,776,308	1,811,834
Expense Level 3: Utilities Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	11,325,805	11,552,321	11,783,367	12,019,034	12,259,415	12,504,603	12,754,695	13,009,789
Expense Level 4: Treatment Costs Rate of Change	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes								
Begin Plant	86,060,705	82,412,975	79,144,100	75,910,500	72,867,860	70,002,567	67,702,105	64,656,509
PT Rate % of beginning net plant	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)	8,860,639	8,561,037	8,545,900	8,374,158	8,276,590	8,227,974	8,023,449	7,773,704
Total Operating Expenses	27,847,783	27,893,723	28,230,141	28,418,605	28,687,636	29,011,355	29,190,448	29,379,952
Cost of Operation as % of Revenues (Calculation)	41.2%	41.3%	41.8%	42.1%	42.5%	43.0%	43.2%	43.4%
Operating Expenses less Depreciation	18,986,644	19,332,286	19,684,641	20,044,447	20,411,246	20,785,381	21,166,999	21,556,249
Operating Income	39,665,106	39,619,066	39,282,248	39,093,784	38,824,553	38,499,034	38,321,941	38,132,437
Nonoperating Revenues (Expenses)								
Interest Income								
Interest Expense	1,703,270	1,646,495	1,591,611	1,538,558	1,487,272	1,437,697	1,389,773	1,343,448
Interest Exp as % of Debt	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Total Nonoperating Revenues (Expenses)	1,703,270.00	1,646,495.00	1,591,611.00	1,538,558.00	1,487,272.00	1,437,697.00	1,389,773.00	1,343,448.00
Income (loss) before State and Federal Taxes	37,961,836	37,972,571	37,690,637	37,555,226	37,337,781	37,061,337	36,932,168	36,838,989
State and Federal Taxes	10,967,174	10,970,276	10,888,825	10,849,705	10,786,741	10,707,020	10,669,703	10,642,784
State and Federal Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income After Taxes	26,994,662	27,002,295	26,801,812	26,705,521	26,550,540	26,354,317	26,262,465	26,196,205
Income After Taxes plus Interest	28,697,932	28,648,790	28,393,423	28,244,079	28,037,812	27,792,014	27,652,238	27,539,653
Earnings before Interest, Taxes, Depreciation, & Amortization	26,501,397	26,239,557	26,049,898	25,768,532	25,527,661	25,312,968	25,005,984	24,670,572
Income (loss) before State and Federal Taxes	37,961,836	37,972,571	37,690,637	37,555,226	37,337,781	37,061,337	36,932,168	36,838,989
Book Depreciation	(8,860,639)	(8,561,037)	(8,545,900)	(8,374,158)	(8,276,590)	(8,227,974)	(8,023,449)	(7,773,704)
Tax Depreciation	(5,355,537)	(5,395,704)	(5,436,171)	(5,476,941)	(5,518,021)	(5,559,406)	(5,601,100)	(5,643,150)
Difference Tax over Book Depreciation	3,505,102	3,165,333	3,109,129	2,897,215	2,758,568	2,668,568	2,422,350	2,130,583
Income Adjusted for Tax Depreciation	41,466,936	41,137,904	40,799,766	40,452,441	40,095,850	39,729,905	39,354,517	38,969,582
Income Tax Rate	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%	28.89%
Income Taxes	11,979,796	11,884,741	11,787,052	11,686,710	11,583,692	11,477,970	11,369,520	11,258,312
Income After Tax	29,487,140	29,253,163	29,012,714	28,765,731	28,512,159	28,251,935	27,984,997	27,711,270
Deferred Income Taxes	1,012,624	914,465	898,227	837,005	796,950	770,950	699,817	615,528
Accumulated Deferred Income Taxes	(2,701,817)	(1,787,352)	(889,125)	(52,120)	744,830	1,515,780	2,215,597	2,831,125
Income After Taxes (Book Depreciation)	26,994,662	27,002,295	26,801,812	26,705,521	26,550,540	26,354,317	26,262,466	26,196,205
Plus Deferred Taxes	1,012,624	914,465	898,227	837,005	796,950	770,950	699,817	615,528
Plus Interest	1,703,270	1,646,495	1,591,611	1,538,558	1,487,272	1,437,697	1,389,773	1,343,448
After Tax Income Cash Flow	27,665,308	27,734,325	27,493,196	27,407,074	27,240,862	27,021,084	26,952,471	26,924,325
Balance Statement								
Assets								
Current Assets								
Current Asset Balance	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
CA as % of Revenues	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Balance Statement								
Property Plant & Equipment								
Total PP&E								
Begin Balance	629,012,157.00	632,936,841.00	636,890,961.00	640,874,736.00	644,888,389.00	648,932,145.00	653,006,231.00	657,110,870.00
Additions	5,232,912.00	5,272,159.00	5,311,700.00	5,351,538.00	5,391,676.00	5,432,113.00	5,472,857.00	5,513,900.00
Retirements	(1,308,228.00)	(1,318,039.00)	(1,327,925.00)	(1,337,885.00)	(1,347,920.00)	(1,358,027.00)	(1,368,213.00)	(1,378,475.00)
End Balance	632,936,841.00	636,890,961.00	640,874,736.00	644,888,389.00	648,932,145.00	653,006,231.00	657,110,870.00	661,246,295.00
End Balance Gross	632,936,841.00	636,890,961.00	640,874,736.00	644,888,389.00	648,932,145.00	653,006,231.00	657,110,870.00	661,246,295.00
Book Depreciation of Property, Plant, & Equipment								
Total Book Depreciation								
Begin Balance	(542,951,451.83)	(550,503,843.23)	(557,746,840.98)	(564,964,235.60)	(572,000,508.67)	(578,979,178.39)	(585,799,125.55)	(592,454,361.93)
Depreciation	(8,860,639.46)	(8,561,036.73)	(8,545,299.64)	(8,374,158.07)	(8,276,589.72)	(8,227,974.12)	(8,023,449.42)	(7,773,702.67)
Retirements	1,308,228.00	1,318,039.00	1,327,925.00	1,337,885.00	1,347,920.00	1,358,027.00	1,368,213.00	1,378,475.00

\\vsx-dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 8-6-2021

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-3	Periods 4-13	14-19	26	27	28	29	30	31	32	33
End Balance					(487,989,444.35)	(496,049,264.60)	(504,066,147.75)	(512,006,140.27)	(519,874,640.14)	(527,701,227.05)	(535,384,720.61)	(542,951,451.43)
End Balance Check					(487,989,444.35)	(496,049,264.60)	(504,066,147.75)	(512,006,140.27)	(519,874,640.14)	(527,701,227.05)	(535,384,720.61)	(542,951,451.43)
Net Plant												
Begin Balance					118,787,742.04	114,355,907.65	110,020,770.40	105,756,503.25	101,597,272.73	97,537,888.66	93,548,989.95	89,731,965.39
End Balance					114,355,907.65	110,020,770.40	105,756,503.25	101,597,272.73	97,537,888.66	93,548,989.95	89,731,965.39	86,060,705.17
Total Assets					132,149,368.65	128,924,239.40	124,659,972.35	120,500,741.73	116,441,357.86	112,452,458.95	108,635,434.30	104,964,174.17
Tax Depreciation of Property, Plant & Equipment												
Total MACRS Depreciation												
Begin Balance												
Depreciation					(4,929,274.00)	(4,966,244.00)	(5,003,491.00)	(5,041,016.00)	(5,078,823.00)	(5,116,916.00)	(5,155,292.00)	(5,254,814.13)
Retirements					1,232,321.00	1,241,561.00	1,250,875.00	1,260,254.00	1,269,707.00	1,279,278.00	1,288,823.00	1,298,487.00
End Balance					(3,696,953.00)	(3,724,683.00)	(3,752,616.00)	(3,780,762.00)	(3,809,116.00)	(3,837,688.00)	(3,866,469.00)	(3,956,327.13)
End Balance Check					(3,696,953.00)	(3,724,683.00)	(3,752,616.50)	(3,780,762.00)	(3,809,116.20)	(3,837,688.00)	(3,866,469.00)	(3,956,327.13)
Net Plant												
Begin Balance					598,648,399.00	602,345,352.00	606,070,035.00	609,822,651.00	613,603,413.00	617,412,529.00	621,250,217.00	625,116,686.00
End Balance					598,648,399.00	602,345,352.00	606,070,035.00	609,822,651.00	613,603,413.00	617,412,529.00	621,250,217.00	625,055,829.87
Tax					(4,929,274.00)	(4,966,244.00)	(5,003,491.00)	(5,041,016.00)	(5,078,823.00)	(5,116,916.00)	(5,155,292.00)	(5,254,814.13)
Book					(9,361,108.39)	(9,302,383.25)	(9,267,758.15)	(9,200,246.53)	(9,138,206.87)	(9,105,814.91)	(8,972,316.56)	(8,865,258.22)
					4,431,834.39	4,336,137.25	4,264,267.15	4,159,230.53	4,059,383.87	3,988,898.91	3,817,024.56	3,610,404.09
Balance Statement												
Liabilities												
Current Liabilities												
Current Liabilities	5,315,392				14,394,153	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
CL as % of Revenues	22.60%	22.60%	22.60%	22.60%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities												
Long Term Debt, Notes payable, net of current portion Beg	147,979,533.00				63,463,926.00	61,348,462.00	59,303,513.00	57,326,729.00	55,415,838.00	53,568,643.00	51,783,022.00	50,056,921.00
Additional Debt												
Debt Repayment					(2,115,464)	(2,044,949)	(1,976,784)	(1,910,891)	(1,847,195)	(1,785,621)	(1,726,101)	(1,668,564)
Debt Repayment years	30.00				30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End					61,348,462.00	59,303,513.00	57,326,729.00	55,415,838.00	53,568,643.00	51,783,022.00	50,056,921.00	48,388,357.00
Total noncurrent liabilities												
Deferred Tax Liabilities												
Begin Balance					14,151,762	12,871,345	10,618,923	9,388,976	8,185,374	7,012,618	5,860,325	4,757,486
Additions to Deferred Asset					(1,280,357)	(1,252,422)	(1,231,947)	(1,201,602)	(1,172,756)	(1,152,293)	(1,102,789)	(1,043,045)
Total Deferred Tax Liability					12,871,345	10,618,923	9,386,976	8,185,374	7,012,618	5,860,325	4,757,486	3,714,441
Total Liabilities					87,619,958.00	85,180,236.00	81,571,505.00	78,659,012.00	75,889,061.00	72,901,047.00	70,072,207.00	67,360,590.00
Equity												
Proportion of Capital	71%											
Beginning Equity Capital	467,794,715				719,227,124	744,571,607	772,519,184	800,327,886	828,015,823	855,573,090	882,972,562	910,280,048
Additions to Equity (Retained Earnings)					25,344,483	27,947,578	27,808,701	27,687,937	27,557,269	27,399,470	27,307,486	27,190,607
Reductions from Equity Dividends	0				0	0	0	0	0	0	0	0
Additional Paid In Capital					0	0	0	0	0	0	0	0
Ending Equity Capital					744,571,607	772,519,184	800,327,886	828,015,823	855,573,092	882,972,562	910,280,048	937,470,655
Operating Income					47,875,380	41,461,861	41,196,085	40,954,671	40,703,662	40,636,723	40,224,514	39,999,393
Return On Equity					3.09%	5.37%	5.35%	4.96%	4.76%	4.58%	4.43%	4.27%
Total Liabilities & Stockholders Equity					832,185,565	857,699,420	882,799,390	906,674,835	931,412,153	955,873,609	980,352,255	1,004,831,253
Assets					132,149,369	128,924,239	124,659,972	120,500,742	116,441,358	112,452,459	108,635,434	104,964,174
Liabilities & Stockholders Equity less Assets					699,996,196	728,775,181	757,619,418	786,174,093	814,970,795	843,421,150	871,716,821	899,867,079
Dividend					699,996,196	728,775,181	757,619,418	786,174,093	814,970,795	843,421,150	871,716,821	899,867,079
Final Stockholder Equity					132,189,369	128,924,239	124,659,972	120,500,742	116,441,358	112,452,459	108,635,434	104,964,174
Capital Expenditures and Changes in Working Capital												
Capital Expenditures					4,929,274.00	4,966,244.50	5,003,491.00	5,041,016.00	5,078,823.00	5,116,916.00	5,155,292.00	5,193,958.00
Changes in Working Capital												
Current Assets	6,585,441				17,833,461	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
Current Liabilities	5,315,392				14,394,153	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
Working Capital	1,270,049				3,439,310	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669
Changes in Working Capital						206,359						
CASH FLOW												
Income from Operations					27,576,423	30,107,024	29,896,165	29,705,888	29,507,906	29,286,086	29,130,248	28,952,615
Non-Cash Expense (Depreciation)					9,361,108	9,302,383	9,267,758	9,200,247	9,138,207	9,105,815	8,972,317	8,865,258
Capital Expenditures					4,929,274	4,966,244	5,003,491	5,041,016	5,078,823	5,116,916	5,155,292	5,193,958
Change in Working Capital						206,359						
Net Cash Flows					32,008,257	34,236,822	34,160,432	33,865,068	33,567,290	33,274,985	32,947,273	32,623,875
Period					25.5	26.5	27.5	28.5	29.5	30.5	31.5	32.5
PW Factor												
Discount Rate with growth	8.01%				8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.00%				6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
					16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Annual Present Worth Factor (PWF)					0.14	0.13	0.12	0.111	0.103	0.095	0.088	0.082
PW of Cashflow					71,706,178	74,799,942	67,470,434	61,814,641	56,864,366	51,686,437	47,885,774	43,984,314

	34	35	36	37	38	39	40	41
End Balance	(550,503,863.31)	(557,746,860.96)	(564,964,735.60)	(572,000,508.67)	(578,929,178.39)	(585,799,125.51)	(592,454,361.93)	(598,849,589.60)
End Balance Check	(550,503,863.31)	(557,746,860.96)	(564,964,735.60)	(572,000,508.67)	(578,929,178.39)	(585,799,125.51)	(592,454,361.93)	(598,849,589.60)
Net Plant								
Begin Balance	86,060,705.17	82,432,977.77	79,144,300.04	75,910,500.40	72,887,880.33	70,002,966.61	67,707,105.49	64,656,508.07
End Balance	82,432,977.77	79,144,300.04	75,910,500.40	72,887,880.33	70,002,966.61	67,707,105.49	64,656,508.07	62,296,705.40
Total Assets	101,336,446.77	98,047,369.04	94,813,969.40	91,791,349.33	88,906,435.61	86,110,574.59	83,559,977.07	81,303,174.40
Tax Depreciation of Property, Plant & Equipment								
Total MACRS Depreciation								
Begin Balance								
Depreciation	(5,355,537.07)	(5,395,703.80)	(5,436,171.34)	(5,476,942.53)	(5,518,021.47)	(5,559,406.07)	(5,601,099.73)	(5,643,109.60)
Retirements	1,308,228.00	1,318,039.00	1,327,925.00	1,337,885.00	1,347,920.00	1,358,027.00	1,368,213.00	1,378,475.00
End Balance	(4,047,309.07)	(4,077,664.80)	(4,108,246.33)	(4,139,057.93)	(4,170,101.47)	(4,201,379.07)	(4,232,886.73)	(4,264,634.60)
End Balance Check	(4,047,309.07)	(4,077,664.80)	(4,108,246.33)	(4,139,057.93)	(4,170,101.47)	(4,201,379.07)	(4,232,886.73)	(4,264,634.60)
Net Plant								
Begin Balance	629,012,557.06	632,936,941.00	636,890,961.00	640,874,716.00	644,888,389.00	648,932,145.00	653,006,231.00	657,110,870.00
End Balance	628,889,531.93	632,813,296.70	636,766,489.67	640,749,331.07	644,762,043.53	648,804,851.93	652,877,983.27	656,981,660.40
Tax	(5,355,537.07)	(5,395,703.80)	(5,436,171.34)	(5,476,942.53)	(5,518,021.47)	(5,559,406.07)	(5,601,099.73)	(5,643,109.60)
Book	(8,860,639.40)	(8,561,016.78)	(8,545,299.64)	(8,374,358.07)	(8,276,589.73)	(8,227,974.12)	(8,023,444.42)	(7,773,702.67)
	3,505,102.33	3,165,332.97	3,109,128.31	2,897,215.14	2,758,568.25	2,668,568.05	2,422,345.69	2,130,593.07
Balance Statement								
Liabilities								
Current Liabilities								
Current Liabilities	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
CL as % of Revenues	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities								
Long Term Debt, Notes payable, net of current portion Beg	48,388,357.00	46,775,412.00	45,216,232.00	43,709,024.00	42,252,057.00	40,843,655.00	39,482,200.00	38,166,127.00
Additional Debt								
Debt Repayment	(1,612,945)	(1,559,180)	(1,507,208)	(1,456,967)	(1,408,402)	(1,361,455)	(1,316,073)	(1,272,204)
Debt Repayment years	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End	46,775,412.00	45,216,232.00	43,709,024.00	42,252,057.00	40,843,655.00	39,482,200.00	38,166,127.00	36,893,923.00
Total noncurrent liabilities								
Deferred Tax Liabilities								
Begin Balance	3,714,441	2,701,817	1,787,352	889,125	52,120	(744,830)	(1,515,780)	(2,215,597)
Additions to Deferred Asset	(1,012,624)	(914,465)	(898,227)	(837,005)	(796,950)	(770,960)	(699,817)	(615,528)
Total Deferred Tax Liability	2,701,817	1,787,352	889,125	52,120	(744,830)	(1,515,780)	(2,215,597)	(2,831,125)
Total Liabilities	64,735,029.00	62,263,384.00	59,865,909.00	57,565,977.00	55,356,635.00	53,234,220.00	51,206,180.00	49,320,598.00
Equity								
Proportion of Capital								
Beginning Equity Capital	937,470,655	964,465,317	991,467,612	1,018,268,424	1,044,974,945	1,071,535,486	1,097,879,802	1,124,142,287
Additions to Equity (Retained Earnings)	26,994,662	27,002,295	26,800,812	26,705,521	26,560,540	26,354,317	26,262,485	26,196,705
Reductions from Equity Dividends	0	0	0	0	0	0	0	0
Additional Paid In Capital	0	0	0	0	0	0	0	0
Ending Equity Capital	964,465,317	991,467,612	1,018,268,424	1,044,974,945	1,071,535,486	1,097,879,802	1,124,142,287	1,150,338,473
Operating Income	39,669,306	39,619,066	39,282,248	39,013,384	38,674,554	38,499,034	38,321,941	38,187,637
Return On Equity	4.21%	4.00%	3.86%	3.74%	3.62%	3.61%	3.41%	3.32%
Total Liabilities & Stockholders Equity	1,029,200,346	1,053,730,996	1,078,125,373	1,102,534,922	1,126,882,111	1,151,128,022	1,175,350,597	1,199,659,070
Assets	101,336,447	98,047,369	94,813,969	91,791,349	88,906,436	86,110,574	83,559,977	81,303,174
Liabilities & Stockholders Equity less Assets	927,863,899	955,683,427	983,311,404	1,020,745,573	1,037,975,675	1,064,993,444	1,091,790,620	1,118,356,896
Dividend	927,863,899	955,683,427	983,311,404	1,020,745,573	1,037,975,675	1,064,993,444	1,091,790,620	1,118,356,896
Final Stockholder Equity	101,336,447	98,047,369	94,813,969	91,791,349	88,906,436	86,110,574	83,559,977	81,303,174
Capital Expenditures and Changes in Working Capital								
Capital Expenditures	5,232,912.00	5,272,159.00	5,311,700.00	5,351,538.00	5,391,676.00	5,432,116.00	5,472,857.00	5,513,900.00
Changes in Working Capital								
Current Assets	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
Current Liabilities	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
Working Capital	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669
Changes in Working Capital								
CASH FLOW								
Income from Operations	28,867,932	28,646,790	28,398,423	28,248,079	28,037,817	27,792,034	27,652,236	27,519,651
Non-Cash Expense (Depreciation)	8,860,639	8,561,017	8,545,300	8,374,358	8,276,590	8,227,974	8,023,444	7,773,703
Capital Expenditures	5,232,912	5,272,159	5,311,700	5,351,538	5,391,676	5,432,116	5,472,857	5,513,900
Change in Working Capital								
Net Cash Flows	32,495,659	31,935,648	31,632,023	31,270,899	30,922,728	30,587,875	30,202,835	29,779,456
Period	33.5	34.5	35.5	36.5	37.5	38.5	39.5	40.5
PW Factor								
Discount Rate with growth	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
	16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Annual Present Worth Factor (PWF)	0.076	0.07	0.065	0.06	0.056	0.051	0.048	0.044
PW of Cashflow	40,406,189	36,769,528	33,853,027	30,854,604	28,440,870	25,947,016	23,843,889	21,564,913

Appendix A-5-1 (AUS)

\\...\York Wastewater System Valuation as of 4-6-2021

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-5	Periods 6-15	16-20	26	27	28	29	30	31	32	33
Accumulated PV of Cashflows	270,743,093				799,458,793	877,618,744	940,069,178	1,001,483,874	1,084,748,150	1,110,737,627	1,158,425,481	1,202,877,715
CASH FLOW												
Income from Operations					28,495,970	31,630,293	30,641,021	30,845,566	30,443,897	30,215,976	30,021,772	29,757,966
Depreciation					(4,929,274)	(4,966,244)	(5,003,493)	(5,041,016)	(5,078,823)	(5,116,916)	(5,155,297)	(5,193,958)
Capital Expenditures					4,929,274	4,966,244	5,003,493	5,041,016	5,078,823	5,116,916	5,155,297	5,193,958
Change in Working Capital						306,359						
Net Cash Flows					28,495,970	31,323,934	30,641,021	30,845,566	30,443,897	30,215,976	30,021,772	29,757,966
Period					25.5	26.5	27.5	28.5	29.5	30.5	31.5	32.5
PV Factor												
Discount Rate with growth	8.01%				8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.08%				6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
					16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Period Present Worth Factor (PW)					0.14	0.13	0.12	0.113	0.103	0.096	0.088	0.082
PV of Cashflows					40,414,293	45,904,963	44,888,073	53,947,086	51,573,230	47,242,654	43,451,581	40,215,274
Accumulated PV of Cashflows	735,386,060				716,351,759	762,056,721	847,925,794	890,872,880	958,446,070	997,868,724	1,041,240,315	1,081,355,589
Rate Case Forecasts												
Rate Base												
Plant In Service					602,345,352.00	606,070,035.00	609,822,551.00	613,601,418.00	617,457,579.00	621,350,717.00	625,316,986.00	629,012,157.00
Accumulated Book Depreciation					(487,989,444.35)	(496,049,264.60)	(504,066,147.75)	(512,806,140.27)	(519,894,640.16)	(527,701,227.05)	(535,384,720.63)	(542,951,451.83)
Working Capital					3,439,310.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00
Accumulated Deferred Income Tax					(11,877,345)	(10,618,923)	(9,386,976)	(8,185,574)	(7,017,618)	(5,880,225)	(4,757,486)	(3,714,441)
Rate Base					105,923,872.65	103,047,516.40	100,015,196.25	97,057,547.73	94,170,939.86	91,384,432.95	88,620,148.89	85,991,933.17
Authorized Return on Rate Base	7.16%				7,584,149.00	7,378,203.00	7,161,088.00	6,949,322.00	6,742,639.00	6,539,545.00	6,345,203.00	6,157,022.00
O&M Expenses					16,454,645.00	16,749,647.00	17,050,550.00	17,357,471.00	17,670,530.00	17,989,851.00	18,315,558.00	18,647,776.00
Book Depreciation					9,361,108.39	9,301,381.25	9,267,758.15	9,200,246.52	9,138,206.87	9,105,816.93	8,972,316.56	8,865,218.32
Remaining Interest Expense					2,233,930.00	2,159,466.00	2,087,484.00	2,017,901.00	1,950,637.00	1,885,616.00	1,822,762.00	1,762,004.00
Revenue Requirement					35,633,832.39	35,588,698.25	35,566,880.15	35,524,940.52	35,572,012.87	35,520,826.93	35,455,839.56	35,432,022.32
O&M Expenses					16,454,645.00	16,749,647.00	17,050,550.00	17,357,471.00	17,670,530.00	17,989,851.00	18,315,558.00	18,647,776.00
Depreciation Expense					9,361,108.39	9,301,381.25	9,267,758.15	9,200,246.52	9,138,206.87	9,105,816.93	8,972,316.56	8,865,218.32
Interest					2,233,930.00	2,159,466.00	2,087,484.00	2,017,901.00	1,950,637.00	1,885,616.00	1,822,762.00	1,762,004.00
Pretax Income					7,584,149.00	7,378,202.00	7,161,088.00	6,949,322.00	6,742,639.00	6,539,545.00	6,345,203.00	6,157,022.00
State & Federal Taxes @ 28.89%					2,191,061.00	2,131,563.00	2,068,858.00	2,007,659.00	1,947,948.00	1,889,275.00	1,833,129.00	1,778,764.00
After Tax Income					5,393,088.00	5,246,639.00	5,092,230.00	4,941,663.00	4,794,691.00	4,650,270.00	4,512,074.00	4,378,258.00
Current Revenue					63,690,933.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00
Revenue Requirement					37,834,894.39	37,720,259.25	37,635,718.15	37,512,599.52	37,499,960.87	37,410,303.93	37,288,968.56	37,210,786.22
Required Revenue Increase					-41%	-44%	-44%	-44%	-45%	-45%	-45%	-45%
Income from Operations					27,579,421	30,507,044	29,606,185	29,705,438	29,507,904	29,285,086	29,130,248	28,953,631
Return on Rate Base					26.04%	29.22%	29.89%	30.61%	31.33%	32.04%	32.87%	33.67%
Required Return	7.16%				7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%
Authorized Return					7,584,149	7,378,202	7,161,088	6,949,472	6,742,639	6,538,545	6,345,203	6,157,022
After tax Net Income					25,344,493	27,947,576	27,808,701	27,687,917	27,557,269	27,399,470	27,307,486	27,190,607
Taxes					10,296,757	11,354,317	11,297,884	11,248,835	11,195,746	11,131,637	11,094,261	11,046,782
Pre-tax Net Income					35,641,250	39,301,893	39,106,597	38,936,770	38,753,015	38,531,107	38,401,752	38,237,389
Interest Expense					2,233,930	2,159,466	2,087,484	2,017,901	1,950,637	1,885,616	1,822,762	1,762,004
Operating Income					37,875,180	41,461,361	41,194,081	40,954,671	40,703,652	40,416,723	40,224,514	39,999,393
Operating Expenses					25,815,753	26,051,028	26,318,308	26,557,718	26,808,737	27,095,666	27,287,875	27,512,996
Revenue Requirement					63,690,933	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389
Required Return					7,584,149	7,378,202	7,161,088	6,949,322	6,742,639	6,539,545	6,345,203	6,157,022
Operating Expenses					25,815,752	26,051,028	26,318,308	26,557,718	26,808,737	27,095,666	27,287,875	27,512,996
Revenue Requirement					33,399,901	33,429,230	33,479,396	33,507,040	33,551,376	33,635,211	33,633,078	33,670,018
Required Rate Increase					-40.61%	-44.13%	-44.25%	-44.42%	-44.53%	-44.59%	-44.72%	-44.80%
					26	27	28	29	30	31	32	33
Proposed Rate Increase												
Rate Increase Scenario	0				0%	0%	0%	0%	0%	0%	0%	0%
	8				26	27	28	29	30	31	32	33
No Increases (Input 1)	5				0%	0%	0%	0%	0%	0%	0%	0%
No Rate Increases (Input 2)	4											
Modest Rate Increases: 5% every 3 year period starting in period 3 (Input 3)	0				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Modest Rate Increases (Input 4)	4											
Required Rate Increases: 40% period 3, 25% period 6, 20% period 9, 10% period 12, and 5% every 3rd year beginning in period 15 (Input 5)	0				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Required Rate Increases (Input 6)					270.4%	287.0%	287.0%	287.0%	287.0%	287.0%	287.0%	287.0%
	0				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts												
Assets												
Change in Current Assets (Source negative / Use positive)						1,070,000						
Plant & Equipment												
Additions (Source negative / Use positive)					4,929,274	4,966,244	5,003,493	5,041,016	5,078,823	5,116,916	5,155,297	5,193,958
Liabilities												
Change in Current Liabilities (Source Positive / Use negative)						463,649						
Long Term Debt												
Additional Long Term Debt (Source Positive / Use Negative)												
Principal Paid Long Term Debt (Source negative / Use negative)					2,115,464	2,044,539	1,976,794	1,910,991	1,847,184	1,785,311	1,726,101	1,668,366

	34	35	36	37	38	39	40	41
Accumulated PV of Cashflows	1,242,827,844	1,279,597,407	1,313,408,424	1,344,761,033	1,372,743,851	1,398,400,871	1,422,744,480	1,443,889,595
CASH FLOW								
Income from Operations	29,487,140	29,254,163	29,032,714	28,765,733	28,522,154	28,251,935	27,984,937	27,731,270
Depreciation	(5,232,933)	(5,272,159)	(5,311,700)	(5,351,538)	(5,391,676)	(5,432,111)	(5,472,852)	(5,513,900)
Capital Expenditures	5,232,933	5,272,159	5,311,700	5,351,538	5,391,676	5,432,111	5,472,852	5,513,900
Change in Working Capital								
Net Cash Flows	29,487,140	29,254,163	29,032,714	28,765,733	28,522,154	28,251,935	27,984,937	27,731,270
Period	33.5	34.5	35.5	36.5	37.5	38.5	39.5	40.5
PV Factor								
Discount Rate with growth	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%	8.01%
Discount Rate without growth	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%	6.08%
	16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Period Present Worth Factor (PW)	0.076	0.07	0.065	0.06	0.056	0.051	0.048	0.044
PV of Cashflows	37,011,397	33,821,350	31,349,251	28,510,815	26,376,979	23,404,411	22,194,170	20,147,364
Accumulated PV of Cashflows	1,118,366,966	1,152,188,076	1,183,537,376	1,211,847,660	1,238,324,640	1,262,024,076	1,284,223,240	1,304,570,504
Rate Case Forecasts								
Rate Base								
Plant In Service	632,936,841.00	636,890,962.00	640,874,736.00	644,888,389.00	648,912,145.00	653,008,733.00	657,110,670.00	661,246,295.00
Accumulated Book Depreciation	(550,503,863.73)	(557,746,460.96)	(564,964,235.60)	(572,000,508.67)	(578,929,778.39)	(585,799,125.51)	(592,454,361.91)	(598,849,589.60)
Working Capital	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00	3,645,669.00
Accumulated Deferred Income Tax	(2,701,817)	(1,787,367)	(889,125)	(52,170)	744,830	1,515,780	2,225,597	2,831,325
Rate Base	83,376,829.77	81,082,417.04	78,667,044.96	76,481,479.34	74,393,465.61	72,368,554.49	70,517,774.07	68,873,499.40
Authorized Return on Rate Base	5,969,781.00	5,799,773.00	5,632,560.00	5,476,070.00	5,326,572.00	5,183,580.00	5,049,073.00	4,931,343.00
O&M Expenses	18,986,644.00	19,332,286.00	19,684,841.00	20,044,447.00	20,411,246.00	20,785,381.00	21,166,999.00	21,556,249.00
Book Depreciation	8,860,639.40	8,561,036.73	8,545,799.64	8,374,158.07	8,276,589.72	8,227,974.13	8,023,449.42	7,773,702.67
Remaining Interest Expense	1,703,270.00	1,646,495.00	1,591,611.00	1,538,558.00	1,487,272.00	1,437,697.00	1,389,773.00	1,343,448.00
Revenue Requirement	35,520,334.40	35,339,591.73	35,454,311.64	35,433,233.07	35,501,679.72	35,632,841.13	35,624,294.42	35,604,742.67
O&M Expenses	18,986,644.00	19,332,286.00	19,684,841.00	20,044,447.00	20,411,246.00	20,785,381.00	21,166,999.00	21,556,249.00
Depreciation Expense	8,860,639.40	8,561,036.73	8,545,799.64	8,374,158.07	8,276,589.72	8,227,974.13	8,023,449.42	7,773,702.67
Interest	1,703,270.00	1,646,495.00	1,591,611.00	1,538,564.00	1,487,272.00	1,437,697.00	1,389,773.00	1,343,448.00
Pretax Income	5,969,781.00	5,799,773.00	5,632,560.00	5,476,070.00	5,326,572.00	5,183,580.00	5,049,073.00	4,931,343.00
State & Federal Taxes @ 28.89%	1,724,670.00	1,675,554.00	1,627,247.00	1,582,037.00	1,538,847.00	1,496,961.00	1,458,677.00	1,424,665.00
After Tax Income	4,245,111.00	4,124,219.00	4,005,313.00	3,894,033.00	3,787,725.00	3,684,619.00	3,590,396.00	3,506,678.00
Current Revenue	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00	67,512,389.00
Revenue Requirement	37,245,004.40	37,015,144.73	37,061,558.64	37,015,270.07	37,040,526.72	37,129,602.17	37,087,971.42	37,029,407.67
Required Revenue Increase	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%
Income from Operations	28,687,947	28,640,790	28,393,423	28,244,075	28,031,812	27,792,014	27,652,238	27,539,851
Return on Rate Base	34.42%	35.37%	36.09%	36.93%	37.69%	38.40%	39.21%	39.99%
Required Return	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%	7.16%
Authorized Return	5,969,781	5,799,773	5,632,560	5,476,070	5,326,577	5,183,589	5,049,073	4,931,343
After tax Net Income	26,994,663	27,002,295	26,801,832	26,705,521	26,550,540	26,354,313	26,262,465	26,196,201
Taxes	10,967,174	10,970,276	10,888,825	10,849,705	10,786,741	10,707,020	10,669,704	10,642,784
Pre-tax Net Income	37,961,836	37,972,571	37,690,657	37,555,226	37,337,281	37,061,337	36,932,168	36,838,985
Interest Expense	1,703,270	1,646,495	1,591,611	1,538,558	1,487,272	1,437,697	1,389,773	1,343,448
Operating Income	39,665,106	39,619,066	39,282,248	39,093,784	38,824,553	38,499,034	38,321,941	38,182,437
Operating Expenses	27,847,283	27,893,323	28,230,141	28,418,605	28,687,836	29,013,355	29,190,448	29,329,952
Revenue Requirement	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389	67,512,389
Required Return	5,969,781	5,799,773	5,632,560	5,476,070	5,326,572	5,183,580	5,049,073	4,931,343
Operating Expenses	27,847,283	27,893,323	28,230,141	28,418,605	28,687,836	29,013,355	29,190,448	29,329,952
Revenue Requirement	33,817,064	33,693,096	33,862,701	33,894,675	34,014,408	34,196,935	34,239,521	34,261,295
Required Rate Increase	-44.89%	-45.17%	-45.07%	-45.17%	-45.14%	-45.00%	-45.06%	-45.15%
	34	35	36	37	38	39	40	41
Proposed Rate Increase								
Rate Increase Scenario	0%	0%	0%	0%	0%	0%	0%	0%
	34	35	36	37	38	39	40	41
No Increases (Input 1)	0%	0%	0%	0%	0%	0%	0%	0%
No Rate Increases (Input 2)								
Modest Rate Increases: 5% every 3 year period starting in period 3 (Input 3)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Modest Rate Increases (Input 4)								
Required Rate Increases: 40% period 3, 25% period 6, 20% period 9, 10% period 12, and 5% every 3rd year beginning in period 15 (Input 5)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Required Rate Increases (Input 6)	287.0%	287.0%	287.0%	287.0%	287.0%	287.0%	287.0%	287.0%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts								
Assets								
Change in Current Assets (Source negative / Use positive)								
Plant & Equipment								
Additions (Source negative / Use positive)	5,232,933	5,272,159	5,311,700	5,351,538	5,391,676	5,432,111	5,472,852	5,513,900
Liabilities								
Change in Current Liabilities (Source Positive / Use negative)								
Long Term Debt								
Additional Long Term Debt (Source Positive / Use Negative)								
Principal Paid Long Term Debt (Source negative / Use negative)	1,612,941	1,559,180	1,507,786	1,456,807	1,406,403	1,361,485	1,316,073	1,272,104

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Equity																				
Additions to Equity (Source Positive / Use Negative)																				
Dividend (Source negative / Use Positive)																				
Funds Provided from Operations																				
Sources of Funds																				
Net Income (Use Negative / Source Positive)					25,344,493	27,947,578	27,806,701	27,687,937	27,557,269	27,399,470	27,307,486	27,190,607	26,994,662	27,002,295	26,801,812	26,705,521	26,550,540	26,354,317	26,262,465	26,196,205
Depreciation (Source positive /use negative)					9,361,108	9,301,381	9,267,758	9,200,247	9,138,207	9,105,815	8,972,317	8,865,218	8,860,639	8,561,037	8,545,300	8,374,158	8,276,590	8,227,974	8,023,649	7,773,703
Current Liabilities (Source Positive)					-	863,649	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					34,705,601	38,112,608	37,076,459	36,888,184	36,695,476	36,505,285	36,279,803	36,055,825	35,855,301	35,563,332	35,347,112	35,079,679	34,827,130	34,582,291	34,285,914	33,969,908
Sources and Uses of Funds																				
Sources of Funds																				
Current Liabilities (Source Positive)																				
Uses of Funds																				
Current Assets: Increase (Use)						1,070,008	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fixed Assets: Assets: Increase (Use)					4,929,274	4,966,244	5,003,491	5,041,016	5,078,823	5,116,916	5,155,292	5,193,958	5,232,912	5,272,159	5,311,700	5,351,538	5,391,676	5,432,113	5,472,852	5,513,900
Total Uses of Funds					4,929,274	6,036,252	5,003,491	5,041,016	5,078,823	5,116,916	5,155,292	5,193,958	5,232,912	5,272,159	5,311,700	5,351,538	5,391,676	5,432,113	5,472,852	5,513,900
Funds from Financing Activities																				
Changes in Debt																				
Increase in Long Term Debt					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of Long Term Debt					(2,115,464)	(2,044,949)	(1,976,784)	(1,910,891)	(1,847,195)	(1,785,621)	(1,726,101)	(1,668,564)	(1,612,945)	(1,559,180)	(1,507,208)	(1,456,967)	(1,408,402)	(1,361,455)	(1,316,073)	(1,272,204)
Funds fom Equity					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dividends Paid (Use)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional Paid in Capital (source)					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds from Financing Activities					(2,115,464.00)	(2,044,949.00)	(1,976,784.00)	(1,910,891.00)	(1,847,195.00)	(1,785,621.00)	(1,726,101.00)	(1,668,564.00)	(1,612,945.00)	(1,559,180.00)	(1,507,208.00)	(1,456,967.00)	(1,408,402.00)	(1,361,455.00)	(1,316,073.00)	(1,272,204.00)
Total Funds Needed					27,660,863.00	30,031,407.00	30,096,184.00	29,936,277.00	29,769,458.00	29,602,748.00	29,398,410.00	29,193,303.00	29,009,444.00	28,731,993.00	28,528,204.00	28,271,174.00	28,027,052.00	27,788,723.00	27,496,989.00	27,183,804.00
Financing																				
Debt	29%				(8,021,650.00)	(8,709,108.00)	(8,727,893.00)	(8,681,520.00)	(8,633,143.00)	(8,584,797.00)	(8,525,539.00)	(8,466,058.00)	(8,412,739.00)	(8,332,278.00)	(8,273,179.00)	(8,198,640.00)	(8,127,845.00)	(8,058,730.00)	(7,974,127.00)	(7,883,303.00)
Equity	71%				(19,639,213.00)	(21,322,299.00)	(21,368,291.00)	(21,254,757.00)	(21,136,315.00)	(21,017,951.00)	(20,872,871.00)	(20,727,245.00)	(20,596,705.00)	(20,399,715.00)	(20,255,025.00)	(20,072,534.00)	(19,899,207.00)	(19,729,993.00)	(19,522,862.00)	(19,300,501.00)
Funds Provided by Financing					(27,660,863.00)	(30,031,407.00)	(30,096,184.00)	(29,936,277.00)	(29,769,458.00)	(29,602,748.00)	(29,398,410.00)	(29,193,303.00)	(29,009,444.00)	(28,732,993.00)	(28,528,204.00)	(28,271,174.00)	(28,027,052.00)	(27,788,723.00)	(27,496,989.00)	(27,183,804.00)

Appendix A-5-1 (AUS)

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	63	Periods	[illegible]	42	43	44	45	46	47	48	49
End Balance					(605,038,646.04)	(611,042,743.76)	(616,916,970.59)	(627,628,517.83)	(628,146,798.23)	(633,607,029.67)	(638,988,866.04)	(644,265,777.76)
End Balance Check					(605,038,646.04)	(611,042,743.76)	(616,916,970.59)	(627,628,517.83)	(628,146,798.23)	(633,607,029.67)	(638,988,866.04)	(644,265,777.76)
Net Plant												
Begin Balance					62,296,705.40	60,374,090.96	58,567,681.24	56,922,626.43	55,472,969.19	54,216,534.77	53,111,347.33	52,088,993.96
End Balance					60,374,090.96	58,567,681.24	56,922,626.43	55,472,969.19	54,216,534.77	53,111,347.33	52,088,993.96	51,200,244.24
Total Assets					78,277,569.96	77,471,150.24	75,826,095.41	74,375,486.19	73,310,003.77	72,014,816.33	70,992,462.96	70,103,714.24
Tax Depreciation of Property, Plant, & Equipment												
Total MACRS Depreciation												
Begin Balance												
Depreciation					(7,485,413.67)	(5,917,602.13)	(6,142,662.07)	(6,208,912.77)	(6,215,348.77)	(6,282,115.57)	(6,329,233.17)	(6,376,700.44)
Retirements					1,188,813.00	1,399,229.00	1,409,723.00	1,420,296.00	1,410,948.00	1,441,680.00	1,452,493.00	1,463,367.00
End Balance					(4,296,620.67)	(4,518,373.13)	(4,733,139.07)	(4,768,616.77)	(4,804,400.77)	(4,840,435.57)	(4,876,740.17)	(4,913,333.44)
End Balance Check					(4,296,620.67)	(4,518,373.13)	(4,733,139.07)	(4,768,616.77)	(4,804,400.77)	(4,840,435.57)	(4,876,740.17)	(4,913,333.44)
Net Plant												
Begin Balance					661,246,295.00	665,412,737.00	669,610,425.00	673,839,597.00	678,180,487.00	682,399,333.00	686,716,377.00	691,075,860.00
End Balance					661,116,116.31	665,097,051.87	669,106,457.93	673,331,850.23	677,588,932.23	681,877,061.43	686,399,119.88	690,562,708.56
Tax					(5,885,433.67)	(5,912,602.13)	(6,142,662.07)	(6,208,912.77)	(6,215,348.77)	(6,282,115.57)	(6,329,233.17)	(6,376,700.44)
Book					(7,577,869.44)	(7,404,126.72)	(7,783,949.63)	(7,131,843.22)	(6,969,228.42)	(6,481,911.44)	(6,832,329.37)	(6,742,298.72)
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	199,795.87	503,096.20	365,598.28
Balance Sheet												
Liabilities												
Current Liabilities												
Current Liabilities	5,315,392				15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
CL as % of Revenues	22.60%	22.60%	22.60%	22.60%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities												
Long Term Debt, Notes payable, net of current portion Beg	[illegible]				36,893,923.00	35,664,126.00	34,475,322.00	33,326,185.00	32,215,273.00	31,141,431.00	30,103,385.00	29,099,937.00
Additional Debt												
Debt Repayment					(1,229,797)	(1,188,804)	(1,149,137)	(1,110,872)	(1,073,842)	(1,038,046)	(1,003,446)	(969,998)
Debt Repayment years	30.00				30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End					35,664,126.00	34,475,322.00	33,326,185.00	32,215,273.00	31,141,431.00	30,103,385.00	29,099,937.00	28,129,939.00
Total noncurrent liabilities												
Deferred Tax Liabilities												
Begin Balance					(2,831,125)	(3,377,850)	(3,808,520)	(4,138,181)	(4,410,588)	(4,622,606)	(4,793,867)	(4,941,232)
Additions to Deferred Asset					(546,725)	(430,670)	(329,661)	(272,407)	(212,018)	(171,261)	(145,345)	(105,621)
Total Deferred Tax Liability					(3,377,850)	(3,808,520)	(4,138,181)	(4,410,588)	(4,622,606)	(4,793,867)	(4,941,232)	(5,046,853)
Total Liabilities					47,544,026.00	45,924,602.00	44,645,764.00	43,082,485.00	41,776,825.00	40,565,296.00	39,416,505.00	38,170,886.00
Equity												
Proportion of Capital	71%											
Beginning Equity Capital	362,294,715				1,150,130,472	1,176,423,448	1,202,375,345	1,228,148,150	1,253,758,270	1,279,206,227	1,304,431,437	1,329,399,938
Additions to Equity (Retained Earnings)					26,088,976	25,951,897	25,772,805	25,610,120	25,447,957	25,225,211	24,968,501	24,733,528
Deductions from Equity Dividends	0				0	0	0	0	0	0	0	0
Additional Paid in Capital					0	0	0	0	0	0	0	0
Ending Equity Capital					1,176,423,448	1,202,375,345	1,228,148,150	1,253,758,270	1,279,206,227	1,304,431,437	1,329,399,938	1,354,133,466
Operating Income					37,585,236	37,750,803	37,459,104	37,187,896	36,300,726	36,549,605	36,172,147	35,806,336
Return On Equity					3.23%	3.38%	3.05%	2.97%	2.89%	2.80%	2.72%	2.64%
Total Liabilities & Stockholders Equity					1,222,967,524	1,248,299,947	1,272,593,914	1,296,820,755	1,320,987,052	1,344,996,733	1,368,816,443	1,392,474,152
Assets					78,277,560	77,471,150	75,826,095	74,375,486	73,310,004	72,014,816	70,992,463	70,103,713
Liabilities & Stockholders Equity less Assets					1,144,689,964	1,170,828,797	1,196,767,819	1,222,445,117	1,247,853,848	1,272,981,917	1,297,823,980	1,322,370,439
Dividend					1,144,689,964	1,170,828,797	1,196,767,819	1,222,445,117	1,247,853,848	1,272,981,917	1,297,823,980	1,322,370,439
Final Stockholder Equity					78,277,560	77,471,150	75,826,095	74,375,486	73,310,004	72,014,816	70,992,463	70,103,713
Capital Expenditures and Changes in Working Capital												
Capital Expenditures					5,555,255.00	5,596,917.00	5,648,895.00	5,681,186.00	5,723,294.00	5,766,724.00	5,809,976.00	5,853,549.00
Changes in Working Capital												
Current Assets	6,540,341				18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
Current Liabilities	5,315,392				15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
Working Capital	[illegible]				3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669
Changes in Working Capital												
CASH FLOW												
Income from Operations					27,383,662	27,307,274	26,986,335	26,782,200	26,581,915	26,422,389	26,026,240	25,757,646
Non Cash Expense (depreciation)					7,577,869	7,404,127	7,383,950	7,131,843	6,969,228	6,481,911	6,832,329	6,742,299
Capital Expenditures					5,555,255	5,596,917	5,648,895	5,681,186	5,723,794	5,766,724	5,809,976	5,853,549
Change in Working Capital												
Net Cash Flows					29,406,276	29,013,684	28,631,392	28,232,857	27,827,349	27,136,576	27,050,493	26,646,396
Period					41.5	42.5	43.5	44.5	45.5	46.5	47.5	48.5
PW Factor												
Discount Rate with growth	4.01%				4.01%	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%
Discount Rate without growth	6.00%				6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
					16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Period Present Worth Factor (PWF)					0.041	0.038	0.036	0.037	0.034	0.028	0.026	0.026
PW of Cashflow					15,839,432	18,123,146	16,482,517	14,859,592	13,738,382	17,932,969	11,547,486	10,516,079

	50	51	52	53	54	55	56	57
End Balance	(649,513,664.38)	(654,679,492.72)	(659,826,375.46)	(664,812,125.23)	(669,672,812.76)	(674,474,762.50)	(679,212,190.99)	(683,919,210.53)
End Balance Check	(649,513,664.38)	(654,679,492.72)	(659,826,375.46)	(664,812,125.23)	(669,672,812.76)	(674,474,762.50)	(679,212,190.99)	(683,919,210.53)
Net Plant								
Begin Balance	51,200,244.24	50,375,446.62	49,665,877.28	49,008,876.54	48,546,280.77	48,242,874.24	48,032,865.50	47,920,851.01
End Balance	50,375,446.62	49,665,877.28	49,008,876.54	48,546,280.77	48,242,874.24	48,032,865.50	47,920,851.01	47,874,422.41
Total Assets	69,278,913.62	68,569,346.28	67,912,345.54	67,440,748.77	67,146,343.24	66,936,354.50	66,824,370.01	66,777,891.47
Tax Depreciation of Property, Plant, & Equipment								
Total MACRS Depreciation								
Begin Balance								
Depreciation	(6,424,523.93)	(6,472,710.16)	(6,521,254.83)	(6,570,164.39)	(6,619,440.03)	(6,669,086.07)	(6,719,101.53)	(6,769,499.01)
Retirements	1,474,362.00	1,485,421.00	1,496,562.00	1,502,787.00	1,519,093.00	1,530,486.00	1,541,967.00	1,553,532.00
End Balance	(4,950,161.93)	(4,987,289.16)	(5,024,692.83)	(5,067,377.39)	(5,100,347.03)	(5,138,600.07)	(5,177,134.53)	(5,215,968.01)
End Balance Check	(4,950,161.93)	(4,987,289.16)	(5,024,692.83)	(5,067,377.39)	(5,100,347.03)	(5,138,600.07)	(5,177,134.53)	(5,215,968.01)
Net Plant								
Begin Balance	695,466,027.00	699,889,109.00	704,345,370.00	708,835,052.00	713,354,406.00	717,915,687.00	722,507,148.00	727,133,042.00
End Balance	694,918,947.09	699,458,080.64	703,810,859.57	708,296,076.63	712,835,139.97	717,398,547.93	721,955,905.47	726,577,664.99
Tax	(6,424,523.93)	(6,472,710.16)	(6,521,254.83)	(6,570,164.39)	(6,619,440.03)	(6,669,086.07)	(6,719,101.53)	(6,769,499.01)
Book	(6,722,248.62)	(6,651,249.54)	(6,643,246.74)	(6,493,736.77)	(6,379,780.52)	(6,331,935.74)	(6,279,885.49)	(6,260,550.54)
	297,724.71	178,539.38	121,991.91	(76,427.62)	(239,659.50)	(337,150.33)	(439,216.04)	(508,948.47)
Balance Sheet								
Liabilities								
Current Liabilities								
Current Liabilities	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
CL as % of Revenues	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Noncurrent Liabilities								
Long Term Debt, Notes payable, net of current portion Beg	28,129,939.00	27,192,274.00	26,285,865.00	25,409,669.00	24,562,680.00	23,743,924.00	22,952,460.00	22,187,378.00
Additional Debt								
Debt Repayment	(937,665)	(906,409)	(876,196)	(846,989)	(818,756)	(791,464)	(765,082)	(739,579)
Debt Repayment years	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End	27,192,274.00	26,285,865.00	25,409,669.00	24,562,680.00	23,743,924.00	22,952,460.00	22,187,378.00	21,447,799.00
Total noncurrent liabilities								
Deferred Tax Liabilities								
Begin Balance	(5,046,853)	(5,132,865)	(5,184,445)	(5,219,688)	(5,197,608)	(5,128,370)	(5,030,968)	(4,904,100)
Additions to Deferred Asset	(86,012)	(51,580)	(35,243)	22,080	69,238	97,402	126,868	147,055
Total Deferred Tax Liability	(5,132,865)	(5,184,445)	(5,219,688)	(5,197,608)	(5,128,370)	(5,030,968)	(4,904,100)	(4,757,045)
Total Liabilities	37,317,209.00	36,354,320.00	35,447,731.00	34,622,877.00	33,872,294.00	33,179,292.00	32,541,078.00	31,948,554.00
Equity								
Proportion of Capital								
Beginning Equity Capital	1,354,133,266	1,378,574,336	1,402,751,961	1,426,613,785	1,450,252,829	1,473,636,539	1,496,708,541	1,519,465,327
Additions to Equity (Retained Earnings)	24,441,065	24,177,624	23,861,857	23,639,080	23,383,710	23,072,581	22,756,787	22,409,713
Deductions from Equity Dividends	0	0	0	0	0	0	0	0
Additional Paid in Capital	0	0	0	0	0	0	0	0
Ending Equity Capital	1,378,574,336	1,402,751,961	1,426,613,785	1,450,252,829	1,473,636,539	1,496,704,542	1,519,465,327	1,541,875,040
Operating Income	35,360,965	34,957,477	34,481,998	34,137,339	33,747,759	33,383,907	32,830,158	32,295,147
Return On Equity	2.57%	2.49%	2.42%	2.36%	2.29%	2.23%	2.16%	2.09%
Total Liabilities & Stockholders Equity	1,415,891,545	1,439,111,271	1,462,061,570	1,484,875,701	1,507,509,893	1,529,887,833	1,552,006,475	1,573,823,594
Assets	69,278,914	68,569,346	67,912,346	67,449,750	67,146,343	66,936,355	66,824,320	66,777,891
Liabilities & Stockholders Equity less Assets	1,346,612,631	1,370,541,825	1,394,149,224	1,417,425,951	1,440,363,050	1,462,951,478	1,485,182,105	1,507,045,703
Dividend	1,346,612,631	1,370,541,825	1,394,149,224	1,417,425,951	1,440,363,050	1,462,951,478	1,485,182,105	1,507,045,703
Final Stockholder Equity	69,278,914	68,569,346	67,912,346	67,449,750	67,146,343	66,936,355	66,824,370	66,777,891
Capital Expenditures and Changes in Working Capital								
Capital Expenditures	5,897,449.00	5,941,662.00	5,986,244.00	6,032,143.00	6,078,374.00	6,122,947.00	6,167,861.00	6,214,122.00
Changes in Working Capital								
Current Assets	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469	18,903,469
Current Liabilities	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800	15,257,800
Working Capital	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669	3,645,669
Changes in Working Capital								
CASH FLOW								
Income from Operations	25,431,243	25,134,784	24,787,097	24,513,460	24,247,836	23,906,287	23,564,714	23,190,729
Non Cash Expense (depreciation)	6,722,249	6,651,249	6,643,245	6,493,737	6,379,781	6,331,936	6,279,885	6,260,551
Capital Expenditures	5,897,449	5,941,662	5,986,244	6,032,143	6,078,374	6,122,947	6,167,861	6,214,123
Change in Working Capital								
Net Cash Flows	26,256,043	25,844,351	25,444,100	24,986,056	24,549,243	24,115,276	23,676,738	23,237,156
Period	49.5	50.5	51.5	52.5	53.5	54.5	55.5	56.5
PW Factor								
Discount Rate with growth	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%
Discount Rate without growth	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
	16.447	16.447	16.447	16.447	16.447	16.447	16.447	16.447
Period Present Worth Factor (PWF)	0.022	[illegible]	0.019	0.018	0.016	0.015	0.014	0.013
PW of Cashflow	9,530,429	8,501,241	7,951,140	7,399,982	6,460,703	5,950,089	5,382,362	4,990,356

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
Equity																				
Additions to Equity (Source Positive / Use Negative)																				
Dividend (Source negative / Use Positive)																				
Funds Provided from Operations																				
Sources of Funds																				
Net Income (Use Negative / Source Positive)					26,084,976	25,951,897	25,772,805	25,610,120	25,447,957	25,225,211	24,968,501	24,733,328	24,441,069	24,177,616	23,861,837	23,639,040	23,383,210	23,072,501	22,756,787	22,409,713
Depreciation (Source positive /use negative)					7,577,869	7,403,327	7,283,950	7,131,843	6,969,228	6,881,911	6,832,329	6,742,299	6,722,249	6,651,249	6,643,245	6,493,737	6,379,781	6,331,936	6,279,895	6,260,551
Current Liabilities (Source Positive)																				
					33,662,845	33,355,224	33,056,755	32,741,963	32,417,185	32,107,122	31,800,830	31,475,627	31,163,318	30,828,865	30,505,082	30,132,777	29,762,991	29,404,437	29,036,682	28,670,264
Sources and Uses of Funds																				
Sources of Funds																				
Current Liabilities (Source Positive)																				
Uses of Funds																				
Current Assets: Increase (Use)																				
Fixed Assets: Assets: Increase (Use)					5,555,255	5,596,917	5,638,895	5,681,186	5,723,794	5,766,724	5,809,976	5,853,549	5,897,449	5,941,682	5,986,244	6,031,141	6,076,374	6,121,947	6,167,861	6,214,122
Total Uses of Funds					5,555,255	5,596,917	5,638,895	5,681,186	5,723,794	5,766,724	5,809,976	5,853,549	5,897,449	5,941,682	5,986,244	6,031,141	6,076,374	6,121,947	6,167,861	6,214,122
Funds from Financing Activities																				
Changes in Debt																				
Increase in Long Term Debt																				
Repayment of Long Term Debt					(1,229,797)	(1,188,804)	(1,149,177)	(1,110,872)	(1,073,842)	(1,038,048)	(1,003,446)	(969,998)	(937,665)	(906,409)	(876,196)	(846,989)	(818,756)	(791,464)	(765,082)	(739,579)
Funds fom Equity																				
Dividends Paid (Use)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional Paid in Capital (source)																				
Total Funds from Financing Activities					(1,229,797.00)	(1,188,804.00)	(1,149,177.00)	(1,110,872.00)	(1,073,842.00)	(1,038,048.00)	(1,003,446.00)	(969,998.00)	(937,665.00)	(906,409.00)	(876,196.00)	(846,989.00)	(818,756.00)	(791,464.00)	(765,082.00)	(739,579.00)
Total Funds Needed					26,877,793.00	26,569,503.00	26,266,683.00	25,949,905.00	25,619,549.00	25,302,350.00	24,987,408.00	24,652,080.00	24,328,204.00	23,980,774.00	23,642,642.00	23,254,647.00	22,867,861.00	22,491,026.00	22,103,739.00	21,716,563.00
Financing																				
Debt	29%				(7,794,560.00)	(7,705,156.00)	(7,617,938.00)	(7,525,472.00)	(7,429,669.00)	(7,337,682.00)	(7,246,348.00)	(7,149,103.00)	(7,055,179.00)	(6,954,474.00)	(6,856,366.00)	(6,743,848.00)	(6,631,680.00)	(6,522,398.00)	(6,410,984.00)	(6,297,803.00)
Equity	71%				(19,083,233.00)	(18,864,347.00)	(18,650,765.00)	(18,424,433.00)	(18,189,880.00)	(17,964,669.00)	(17,741,060.00)	(17,502,977.00)	(17,273,025.00)	(17,026,300.00)	(16,786,276.00)	(16,510,799.00)	(16,236,181.00)	(15,968,628.00)	(15,693,655.00)	(15,418,760.00)
Funds Provided by Financing					(26,877,793.00)	(26,569,503.00)	(26,268,683.00)	(25,949,905.00)	(25,619,549.00)	(25,302,351.00)	(24,987,408.00)	(24,652,080.00)	(24,328,204.00)	(23,980,774.00)	(23,642,642.00)	(23,254,647.00)	(22,867,861.00)	(22,491,026.00)	(22,103,739.00)	(21,716,563.00)

Appendix A-5-1 (AUS)

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-5	Periods 6-15	16-??	58	59	60
Income Statement							
Revenues							
Annual Revenue Growth rate							
Subscriber Growth Rate (Annually)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth							
Growth	0.0%	0.0%	0.0%	0.0%			0.0%
Period for Periodic Growth	5						
Rate Case Activities							
Periodic Rate Case (years)	Typically 3 years						
Required Rate Increase	Calculated in DCF				36.29%	37.50%	36.72%
Proposed Rate Increase	Calculated in DCF				0.0%	0.0%	0.0%
Total Revenue Adjustments	Calculated				0.0%	0.0%	0.0%
Base and Forecast	23,519,433				67,512,389	67,512,389	67,512,389
Operating Expenses					10%	11%	11%
Expense Level 1: Personnel & Administration	5,001,844				7,043,365	7,184,232	7,327,917
Expense Level 1: Personnel & Administration Rate of Change		-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Services	2,307,861				1,704,516	1,704,516	1,704,516
Expense Level 2: Contract Services Rate of Change		-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	804,476				2,537,007	2,587,747	2,639,502
Expense Level 3: Utilities Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Costs	5,776,476				18,238,848	18,585,183	18,962,887
Expense Level 4: Treatment Costs Rate of Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Property Taxes	510,274,246						
Begin Plant					47,876,422	47,907,979	47,976,396
PT Rate % of beginning net plant	0.000%				0.000%	0.000%	0.000%
Book Depreciation (based on Beginning Year Property Plant & Equipment)					6,227,179	6,239,257	6,223,975
Total Operating Expenses					35,728,913	36,296,935	36,848,717
Cost of Operations as % of Revenues (Calculated)					52.9%	53.8%	54.6%
Operating Expenses less Depreciation					29,501,734	30,057,678	30,624,742
Operating Income					31,783,476	31,215,454	30,663,672
Nonoperating Revenues (Expenses)							
Interest Income							
Interest Expense					754,963	729,797	705,471
Interest Rate as % of Debt	3.52%				3.52%	3.52%	3.52%
Total nonoperating revenues (expenses)					754,963.00	729,797.00	705,471.00
Income (loss) before State and Federal Taxes					31,028,513	30,485,657	29,958,201
State and Federal Taxes					8,964,138	8,807,306	8,654,924
State and Federal Tax Rate	28.89%				28.89%	28.89%	28.89%
Income After Taxes					22,064,375	21,678,351	21,303,277
Income After Taxes plus Interest					22,819,338	22,408,148	22,008,748
Earnings before Interest, Taxes, Depreciation, & Amortization					20,082,379	19,840,099	19,577,799
Income (loss) before State and Federal Taxes					31,028,513	30,485,657	29,958,201
Book Depreciation					(6,227,179)	(6,239,257)	(6,223,975)
Tax Depreciation					(6,820,268)	(6,871,422)	(6,922,955)
Difference Tax over Book Depreciation					(593,090)	(632,165)	(698,979)
Income Adjusted for Tax Depreciation					30,435,424	29,853,492	29,259,222
Income Tax Rate					28.89%	28.89%	28.89%
Income Taxes					8,792,794	8,624,674	8,452,989
Income After Tax					21,642,630	21,228,818	20,806,232
Deferred Income Taxes					(171,344)	(182,632)	(201,935)
Accumulated Deferred Income Taxes					4,585,701	4,403,069	4,201,134
Income After Taxes (Book Depreciation)					22,064,375	21,678,351	21,303,277
Plus Deferred Taxes					(171,344)	(182,632)	(201,935)
Plus Interest					754,963	729,797	705,471
After Tax Income Debt Free					22,990,682	22,590,780	22,210,683
Balance Statement							
Assets:							
Current Assets							
Current Asset Balance	6,585,441				18,903,469	18,903,469	18,903,469
CA as % of Revenues	28.00%	28.00%	28.00%	28.00%	28.0%	28.0%	28.0%
Balance Statement							
Property Plant & Equipment							
Total PP&E							
Begin Balance					731,793,633.00	736,489,177.00	741,219,909.00
Additions					6,260,726.00	6,307,663.00	6,354,988.00
Retirements					(1,565,182.00)	(1,576,925.00)	(1,588,748.00)
End Balance	510,274,246.00				736,489,177.00	741,219,939.00	745,986,179.00
End Balance Check					736,489,177.00	741,219,939.00	745,986,179.00
Book Depreciation of Property, Plant, & Equipment							
Total Book Depreciation							
Begin Balance					(683,919,210.53)	(688,581,207.11)	(693,243,543.31)
Depreciation					(6,227,178.58)	(6,239,257.20)	(6,223,975.43)
Retirements					1,565,182.00	1,576,925.00	1,588,748.00

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	1-9	Periods 10-15	16-39	58	59	60
End Balance					(688,583,207.13)	(693,243,543.33)	(697,878,770.74)
End Balance Check					(688,583,207.13)	(693,243,543.33)	(697,878,770.74)
Net Plant							
Begin Balance					47,674,422.42	47,907,969.89	47,976,395.69
End Balance					47,907,969.89	47,976,395.69	48,107,404.26
Total Assets					66,811,438.89	66,879,864.69	67,010,877.26
Tax Depreciation of Property, Plant, & Equipment							
Total MACRS Depreciation							
Begin Balance							
Depreciation					(6,820,268.19)	(6,871,421.91)	(6,922,954.72)
Retirements					1,565,182.00	1,576,921.00	1,588,748.00
End Balance					(5,255,086.19)	(5,294,500.91)	(5,334,206.72)
End Balance Check					(5,255,086.19)	(5,294,500.91)	(5,334,206.72)
Net Plant							
Begin Balance					731,793,633.00	736,489,177.00	741,219,939.00
End Balance					731,234,090.81	735,925,438.09	740,661,977.28
Tax					(6,820,268.19)	(6,871,421.91)	(6,922,954.72)
Book					(6,227,178.58)	(6,239,257.30)	(6,223,975.43)
					(593,089.61)	(632,164.71)	(698,979.29)
Balance Statement							
Liabilities							
Current Liabilities							
Current Liabilities	5,315,392				15,257,800	15,257,800	15,257,800
CL as % of Revenues	22.60%	22.60%	22.60%	22.60%	22.6%	22.6%	22.6%
Noncurrent Liabilities							
Long Term Debt, Notes payable, net of current portion Beg	147,979,511.00				21,447,799.00	20,732,872.00	20,041,776.00
Additional Debt							
Debt Repayment					(714,927)	(691,096)	(668,069)
Debt Repayment years	30.00				30.00	30.00	30.00
End Long Term Debt, Notes payable, net of current portion End					20,732,872.00	20,041,776.00	19,373,717.00
Total noncurrent liabilities							
Deferred Tax Liabilities							
Begin Balance					(4,757,045)	(4,585,701)	(4,403,069)
Additions to Deferred Asset					171,344	182,632	201,935
Total Deferred Tax Liability					(4,585,701)	(4,403,069)	(4,201,134)
Total Liabilities					31,404,871.00	30,896,507.00	30,450,383.00
Equity							
Proportion of Capital	71%						
Beginning Equity Capital	362,294,715				1,541,875,000	1,563,979,416	1,585,617,767
Additions to Equity (Retained Earnings)					22,064,475	21,678,351	21,306,277
Deductions form Equity Dividends	0				0	0	0
Additional Paid in Capital					0	0	0
Ending Equity Capital					1,563,939,416	1,585,617,767	1,606,923,043
Operating Income					31,784,476	31,215,454	30,663,672
Return On Equity					2.03%	1.97%	1.91%
Total Liabilities & Stockholders Equity					1,595,344,287	1,616,514,274	1,637,363,426
Assets					66,811,439	66,879,865	67,010,877
Liabilities & Stockholders Equity less Assets					1,528,532,948	1,549,634,409	1,570,340,549
Dividend					1,528,532,948	1,549,634,409	1,570,340,549
Final Stockholder Equity					66,811,439	66,879,865	67,010,877
Capital Expenditures and Changes in Working Capital							
Capital Expenditures					6,260,726.00	6,307,683.00	6,354,988.00
Changes in Working Capital							
Current Assets	6,585,441				18,903,469	18,903,469	18,903,469
Current Liabilities	5,315,392				15,257,800	15,257,800	15,257,800
Working Capital	1,270,049				3,645,669	3,645,669	3,645,669
Changes to Working Capital							
CASH FLOW							
Income from Operations					22,819,338	22,406,148	22,008,746
Non Cash Expense (depreciation)					6,227,179	6,239,257	6,223,975
Capital Expenditures					6,260,726	6,307,683	6,354,988
Change in Working Capital							
Net Cash Flows					22,786,791	22,337,722	21,877,733
Period					57.5	58.5	59.5
PW Factor							
Discount Rate with growth	8.01%				8.01%	8.01%	8.01%
Discount Rate without growth	6.08%				6.08%	6.08%	6.08%
					16.447	16.447	16.447
Period Present Worth Factor (PW)					0.012	0.011	0.01
PW of Cashflow					4,492,099	4,041,635	3,598,231

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 19	58	59	60
Accumulated PW of Cashflows	270,745,093				1,622,244,698	1,626,286,333	1,629,884,564
CASH FLOW							
Income from Operations					21,642,630	21,228,818	20,806,232
Depreciation					(6,820,268)	(6,871,422)	(6,922,955)
Capital Expenditures					6,260,726	6,307,683	6,354,988
Change in Working Capital							
Net Cash Flows					22,202,172	21,792,557	21,374,199
Period					57.5	58.5	59.5
PW Factor							
Discount Rate with growth	8.01%				8.01%	8.01%	8.01%
Discount Rate without growth	6.08%				6.08%	6.08%	6.08%
					16.447	16.447	16.447
Period Present Worth Factor (PW)					0.012	0.011	0.01
PW of Cashflow					4,381,909	3,942,644	3,515,415
Accumulated PW of Cashflows	225,556,602				1,474,599,693	1,478,512,337	1,482,027,752

Rate Case Forecasts							
Rate Base							
Plant In Service					736,489,177.00	741,219,939.00	745,986,179.00
Accumulated Book Depreciation					(688,581,207.11)	(693,243,543.31)	(697,878,770.74)
Working Capital					3,645,669.00	3,645,669.00	3,645,669.00
Accumulated Deferred Income Tax					4,585,701	4,403,069	4,201,134
Rate Base					56,139,339.89	56,025,133.69	55,954,211.26
Authorized Return on Rate Base	7.16%				4,019,577.00	4,011,400.00	4,006,322.00
O&M Expenses					29,501,734.00	30,057,678.00	30,624,742.00
Book Depreciation					6,227,178.58	6,239,257.20	6,223,975.43
Ratemaking Interest Expense					754,963.00	729,797.00	705,471.00
Revenue Requirement					40,503,452.58	41,038,132.20	41,560,510.43
O&M Expenses					29,501,734.00	30,057,678.00	30,624,742.00
Depreciation Expense					6,227,178.58	6,239,257.20	6,223,975.43
Interest					754,963.00	729,797.00	705,471.00
Pretax Income					4,019,577.00	4,011,400.00	4,006,322.00
State & Federal Taxes @ 28.89%					1,161,256.00	1,158,893.00	1,157,426.00
After Tax Income					2,858,321.00	2,852,507.00	2,848,896.00
Current Revenue					67,512,389.00	67,512,389.00	67,512,389.00
Revenue Requirement					41,664,708.58	42,197,025.20	42,717,936.43
Required Revenue Increase					-38%	-37%	-37%
Income from Operations					22,819,338	22,408,148	22,008,748
Return on Rate Base					40.65%	40.00%	39.33%
Required Return	7.16%				7.16%	7.16%	7.16%
Authorized Return					4,019,577	4,011,400	4,006,322
After-tax Net Income					22,064,375	21,678,351	21,303,277
Taxes					8,964,138	8,807,306	8,654,924
Pre-tax Net Income					31,028,513	30,485,657	29,958,201
Interest Expense					754,963	729,797	705,471
Operating Income					31,783,476	31,215,454	30,663,672
Operating Expenses					35,728,913	36,296,935	36,848,717
Revenue Requirement					67,512,389	67,512,389	67,512,389
Required Return					4,019,577	4,011,400	4,006,322
Operating Expenses					35,728,913	36,296,935	36,848,717
Revenue Requirement					39,748,490	40,308,335	40,855,039
Required Rate Increase					-38.29%	-37.50%	-36.73%
					58	59	60
Proposed Rate Increase							
Rate Increase Scenario	6				0%	0%	0%
	0				58	59	60
No increases (Input 2)	2				0%	0%	0%
No Rate Increases (Input 2)	3						
Modest Rate Increases 6% every 3 year period starting in							
period 3 (Input 4)	4				0.0%	0.0%	6.0%
Modest Rate Increases (Input 4)	5						
Required Rate Increases 30% period 3,25% period 6, 20%							
period 9, 10% period 12, and 6% every 3rd year beginning in							
period 15 (Input 6)	6				0.0%	0.0%	0.0%
Required Rate Increases (Input 6)	7				287.0%	287.0%	287.0%
	4				0.0%	0.0%	0.0%
Changes in Balance Sheet Accounts							
Assets							
Change in Current Assets (Source negative / Use positive)					-	-	
Plant & Equipment							
Additions (Source negative / Use positive)					6,260,726	6,307,683	6,354,988
Liabilities							
Change in Current Liabilities (Source Positive / Use negative)							-
Long Term Debt							
Additional Long Term Debt Source Positive / Use Negative					-	-	-
Principal Paid Long term Debt (Source positive / Use negative)					714,927	691,096	668,059

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Potential Purchaser: Investor-Owned Utility
As of April 6, 2021

	Base	Periods 1-5	6-15	16 - 39	58	59	60
Equity							
Additions to Equity (Source Positive / Use Negative)							
Dividend (Source negative / Use Positive)							
Funds Provided from Operations							
Sources of Funds							
Net Income (Use Negative / Source Positive)					22,064,375	21,678,351	21,303,277
Depreciation (Source positive /use negative)					6,227,179	6,239,257	6,223,975
Current Liabilities (Source Positive)					-	-	-
					28,291,554	27,917,608	27,527,252
Sources and Uses of Funds							
Sources of Funds							
Current Liabilities (Source Positive)							
Uses of Funds							
Current Assets. Increase (Use)					-	-	-
Fixed Assets. Assets. Increase (Use)					6,260,726	6,307,683	6,354,988
Total Uses of Funds					6,260,726	6,307,683	6,354,988
Funds from Financing Activities							
Changes in Debt							
Increase in Long Term Debt							
Repayment of Long Term Debt					(714,927)	(691,096)	(668,059)
Funds fom Equity							
Dividends Paid (Use)					0	0	0
Additional Paid in Capital (source)							
Total Funds from Financing Activities					(714,927.00)	(691,096.00)	(668,059.00)
Total Funds Needed					21,315,901.00	20,918,829.00	20,504,205.00
Financing							
Debt	29%				(6,181,611.00)	(6,066,460.00)	(5,946,219.00)
Equity	71%				(15,134,290.00)	(14,852,369.00)	(14,557,986.00)
Funds Provided by Financing					(21,315,901.00)	(20,918,829.00)	(20,504,205.00)

Appendix A-5-1 (AUS)

Appendix A-5-1 (AUS)

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

DCF Calculated 270,746,093

DCF Forecast Parameters

	Forecast Base		Forecast Parameters for Periods 1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60
Revenue Base											
Revenue Base	23,519,433	23,519,433									
Year over Year Growth											
Total Revenues	23,519,433	23,519,433									

249,288,076

			1-5	6-15	16-15	20-26	27-33	34-40	40-46	47-53	54-60
2020 Revenues	23,519,433	23,519,433									
Increase in period 1											
Use		0% AUS Input									
Revenue Forecast											
Annual Subscriber Growth	Annual Subscriber Growth: All Periods 0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Periodic Subscriber Growth	Periodic Customer Growth: All period 0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Growth		0%									
Period every 7 years		5									

				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Rate Adjustment		Periodic Customer Growth: All Periods 0.0%																						
Rate Adjustment Period	typically 3 years		1																					
Rate Adjustment based on Rate Case		Based on Authorized Return on Rate Base	0.0%	0.0%	6.0%	6.0%	6.0%	0.0%	6.0%	8.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%	0.0%	0.0%	6.0%
Rate Increase Scenario			3																					
	2 No Rate Increases	No increases (Input 2)	4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		Indicated Rate Increase		109.49%	107.62%	58.34%	56.62%	54.51%	22.47%	20.83%	19.28%	-2.07%	-3.54%	-5.00%	-14.89%	-16.16%	-17.44%	-23.29%	-23.35%	-24.58%	-29.37%	-29.87%	-30.45%	
		Indicated Rate Increase (saved)		19.85%	19.89%	20.56%	21.32%	21.94%	23.12%	24.22%	25.57%	27.28%	29.18%	31.47%	33.67%	36.59%	38.55%	43.11%	48.82%	53.52%	58.31%	65.71%	72.68%	
	4 Modest Rate Increases	Modest Rate Increases: 6% every 3 year period starting in period 3 (Input 4)	5	0%	0%	6%	0%	0%	6%	0%	0%	6%	0%	0%	6%	0%	0%	6%	0%	0%	6%	0%	0%	6%
		Indicated Rate Increase		109.49%	107.62%	58.34%	56.62%	54.92%	22.47%	20.83%	19.28%	-2.87%	-3.54%	-5.05%	-14.89%	-16.16%	-17.44%	-23.29%	-23.85%	-24.56%	-29.37%	-29.87%	-30.45%	
		Indicated Rate Increase (saved)		13.13%	13.17%	13.79%	14.52%	8.65%	9.70%	10.69%	11.88%	7.05%	8.65%	10.58%	12.42%	8.44%	10.79%	13.62%	17.51%	14.99%	19.37%	24.12%	25.34%	
	6 Required Rate Increases	Required Rate Increases: 30% period 3, 25% period 6, 20% period 9, 10% period 12, and 6% every 3rd year beginning in period 15 (Input 6)	6	0%	0%	30%	0%	0%	25%	0%	0%	20%	0%	0%	10%	0%	0%	0%	6%	0%	6%	0%	0%	
		Indicated Rate Increase		109.49%	107.62%	58.54%	56.62%	54.92%	22.47%	20.83%	19.28%	-2.07%	-3.54%	-5.05%	-14.89%	-16.16%	-17.44%	-23.29%	-23.86%	-24.56%	-29.37%	-29.87%	-30.45%	
		Indicated Rate Increase (saved)																						
Rate Increase Scenario Input	Rate Increase Scenario Input	6 Input																						

Operating Expenses

Investor Owned Deferred Tax

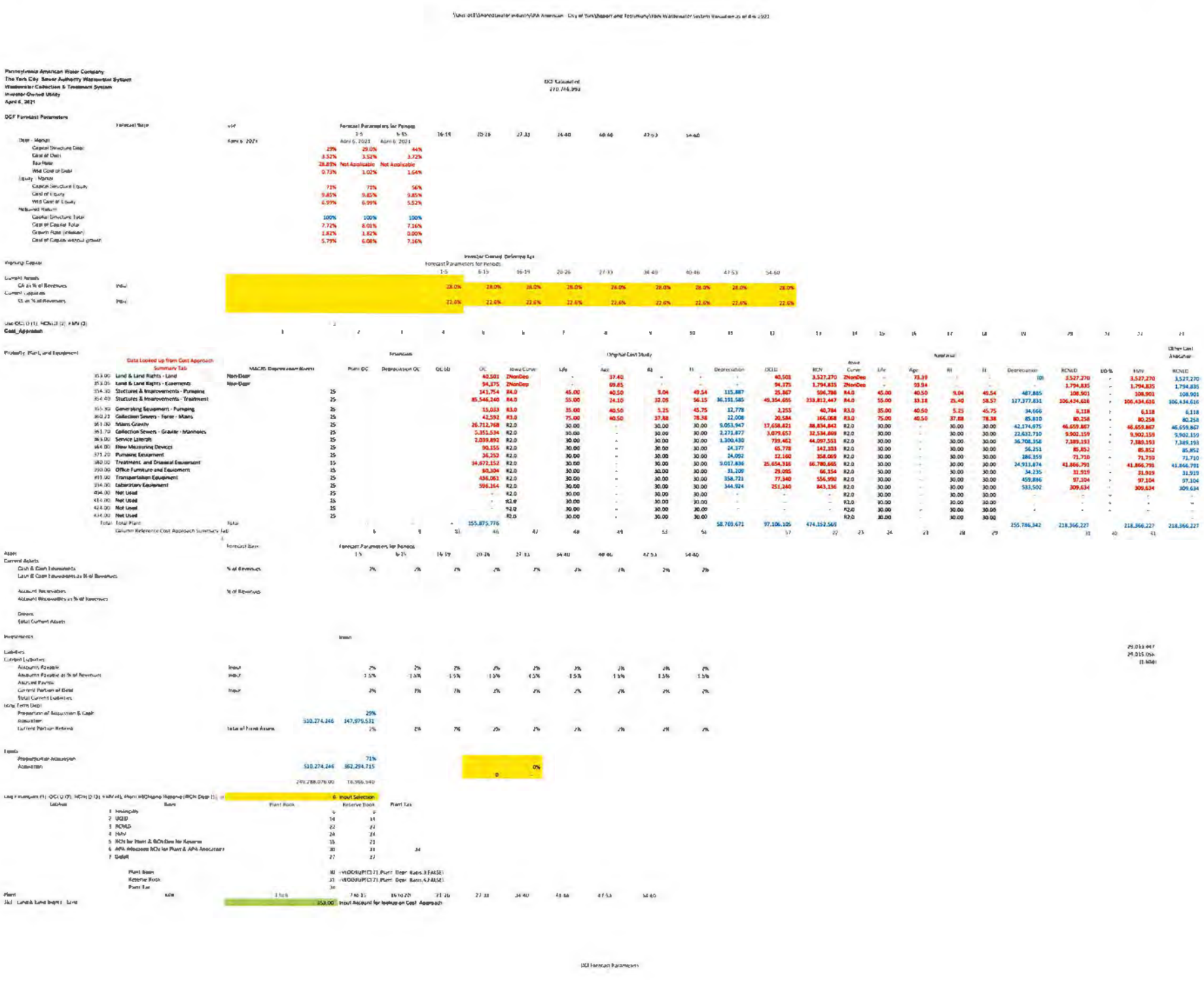
		Use	Expenses as % of Revenues	Forecast Parameters for Periods 1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60
Expense Level 1: Personnel & Administration	5,001,844.00	5,001,844	21.27%	-3.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Personnel & Administrative Expense Growth Rate: Periods 1-5 -3%, 6-15 -4.0% all remaining Periods 2.0%												
Expense Level 2: Contract Services	2,307,861.00	2,307,861	9.81%	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Contract Services Expense Growth Rate: Periods 1-5 & 6-15 -2.0% all remaining Periods 0.0%												
Expense Level 5: Depreciation	3,929,547.00			Based on Plant and Depreciation Parameters								
Book Depreciation Expense: Based on CORLD, Plant Depreciation Parameters, and CORLD Aging; Tax Depreciation based on CORLD and MACRS												
Expense Level 3: Utilities	804,476.00	804,476	3.42%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Utilities Expense Growth Rate: All Periods 2.0%												
Expense Level 4: Treatment Costs	5,776,478.00	5,776,476	24.56%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Wastewater Treatment Expense Growth Rate: All Periods 2.0%												
Expense Level 6: Miscellaneous	2,655,974.00	2,655,974	11.29%	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Miscellaneous Expense Growth Rate: Periods 1-5 & 6-15 -2.0% all remaining Periods 0.0%												
Expense Level 7: Not Used	-	-	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
No Forecast Required												
Total Operating Expenses	20,476,180	16,546,633	70.35%									
Total Operating Expenses Check	20,476,180											
Difference	-											
OpEX less Depreciation	16,546,633	16,546,633										
OpEX as % of Revenues	70.35%											
Total Operating Expenses												
Total Operating Expenses Check												
Operating Expenses less Depreciation												
Net Operating Income before Non-operating Revenue and Expenses	1,843,253	6,972,800										

Non-Operating Income (Expenses)			
Interest Income			
Interest Rate on Investments	2%	2%	2%
Gain on the Sale of Assets			
Long Term Debt Interest			
Interest Rate on Long Term Debt	-3.52%	-3.52%	
Total Non-Operating Income	Calculated		

Depreciation		Calculated based on Plant		
Property Taxes	0.000%	of Assessed (Beginning Net Book Value) Value of Taxable Property		0.00%
Taxes			References to Spreadsheet Location	
Federal	21.00%	of Pretax Income	='Valuation Date'!AW30	21.00%
State	9.99%	of Pretax Income	='Valuation Date'!AW31	9.99%
State & Federal Tax Rate	28.89%	of Pretax Income	='Valuation Date'!AW33	28.89%

Cost of Capital Required Return

Valuation Cost of Capital	Cost of Capital (Dept Rate)	Cost of Capital	Return on Rate Base Cost of Capital



Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

DCF Calculation
270,740,093

DCF Forecast Parameters

	Forecast Basis		Forecast Parameters for Period 1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
End Balance - Calculated		1,795,955									
353.05 - Land & Land Rights - Easements		353.05	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
End Balance - Calculated		1,931,554									
354.3 - Structures & Improvements - Pumping		354.30	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		642,170									
354.4 - Structures & Improvements - Treatment		354.40	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		251,630,354									
355.3 - Generating Equipment - Pumping		355.30	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		43,893									
360.21 - Collection Sewers - Force - Mains		360.21	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		178,713									
361 - Mains Gravity		361.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		95,609,528									
361.7 - Collection Sewers - Gravity - Manholes		361.70	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		35,008,029									
363 - Service Laterals		363.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		47,446,629									
364 - Flow Measuring Devices		364.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		152,916									
371.2 - Pumping Equipment		371.20	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		385,282									
380 - Treatment and Disposal Equipment		380.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		71,871,018									
390 - Office Furniture and Equipment		390.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		71,192									
391 - Transportation Equipment		391.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											
Retirement Rate	Input Negative or Zero	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
End Balance - Calculated		595,547									
394 - Laboratory Equipment		394.00	Input Account for lookup on Cost Approach								
Begin Balance											
Additions											
Addition Rate	Input Positive or Zero	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Retirements											

[illegible]

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

DCF Calculated
270,746,093

DCF Forecast Parameters

	Forecast Base	Unit		Forecast Parameters for Periods 1-5	9-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60
Retirement Rate	Input Negative or Zero		-0.25%	-0.25%	0.25%	-0.25%	-0.25%	0.25%	-0.25%	-0.25%	-0.25%	
End Balance - Calculated			597,462									
404 Not Used			#N/A	Input Account for lookup on Cost Approach								
Begin Balance												
Additions												
Addition Rate	Input Positive or Zero		2.00%	0.00%	2.00%	0.00%	2.00%	0.00%	2.00%	0.00%	0.00%	
Retirements												
Retirement Rate	Input Negative or Zero		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	
End Balance - Calculated												
414 Not Used			#N/A	Input Account for lookup on Cost Approach								
Begin Balance												
Additions												
Addition Rate	Input Positive or Zero		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Retirements												
Retirement Rate	Input Negative or Zero		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
End Balance - Calculated												
424 Not Used			#N/A	Input Account for lookup on Cost Approach								
Begin Balance												
Additions												
Addition Rate	Input Positive or Zero		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Retirements												
Retirement Rate	Input Negative or Zero		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
End Balance - Calculated												
Total - Total Plant		Total										
Begin Balance												
Additions												
Addition Rate	Calculated											
Retirements												
Retirement Rate	Calculated											
End Balance - Lookup			508,274,344									
End Balance - Calculated			508,274,344									
End Balance Check			-									

			1 to 6		7 to 15	16 to 20	21-26	27-33	34-40	41-46	47-53	54-60
				27		1	1	1				
Depreciation - Book						17	20	18				
Use Depreciation Life Projection (1), Total (2) or Remaining (3)				1								
Use Depreciation Life Projection (1), Total (2) or Remaining (3)				2	3							
				10								
353 - Land & Land Rights - Land	Book Depreciation Life 0 yrs			353	Referenced to Plant C157							
Begin Balance		0										
Depreciation - Book												
Survivor/Retirement Curve				ZNonDep								
Projection Life				0								
Average Age				73.59								
Remaining Life				0								
Depreciation Rate	Input Positive or Zero			0.00%	0.00%	0.00%						
Depreciation - Tax		Non-Depr										
Retirements Calculated in Plant												
End Balance - Calculated				-								
353.05 - Land & Land Rights - Easements	Book Depreciation Life 8 yrs			353.05	Referenced to Plant C164							
Begin Balance		0										
Depreciation - Book												
Survivor/Retirement Curve				ZNonDep								
Projection Life				0								
Average Age				91.54								
Remaining Life				8								
Depreciation Rate	Input Positive or Zero			0.00%	0.00%	0.00%						
Retirements Calculated in Plant												
End Balance - Calculated				-								
354.3 - Structures & Improvements - Pumping	Book Depreciation Life 9.04 yrs			354.3	Referenced to Plant C171							
Begin Balance		0.130%										
Depreciation - Book												
Survivor/Retirement Curve				R4.0								
Projection Life				45								
Average Age				40.5								
Remaining Life				9.04								
Depreciation Rate	Input Positive or Zero			11.06%	11.06%	11.06%						
Retirements Calculated in Plant												
End Balance - Calculated				(534,974)								
354.4 - Structures & Improvements - Treatment	Book Depreciation Life 25.4 yrs			354.4	Referenced to Plant C178							
Begin Balance		0.039%										
Depreciation - Book												
Survivor/Retirement Curve				R4.0								
Projection Life				55								
Average Age				53.18								
Remaining Life				25.4								
Depreciation Rate	Input Positive or Zero			3.94%	3.94%	3.94%						
Retirements Calculated in Plant												
End Balance - Calculated				(137,888,319)								
355.3 - Generating Equipment - Pumping	Book Depreciation Life 5.25 yrs			355.3	Referenced to Plant C185							
Begin Balance		0.100%										
Depreciation - Book												
Survivor/Retirement Curve				R3.0								
Projection Life				35								
Average Age				40.5								
Remaining Life				5.25								
Depreciation Rate	Input Positive or Zero			19.05%	19.05%	19.05%						
Retirements Calculated in Plant												
End Balance - Calculated				(17,389)								
360.21 - Collection Sewers - Force - Mains	Book Depreciation Life 37.88 yrs			360.21	Referenced to Plant C192							
Begin Balance		0.026%										
Depreciation - Book												
Survivor/Retirement Curve				R3.0								
Projection Life				75								
Average Age				40.5								
Remaining Life				37.88								
Depreciation Rate	Input Positive or Zero			2.64%	2.64%	2.64%						

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

DCF Calculated
270,746,093

DCF Forecast Parameters

	Forecast Basis	[illegible]		Forecast Parameters for Periods 1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60
Retirements Calculated in Plant												
End Balance - Calculated			(92,341)									
361 - Mains Gravity	**Book Depreciation Life 30 yrs**		361	**Referenced to Plant C299**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(45,385,404)									
361.7 - Collection Sewers - Gravity - Manholes	**Book Depreciation Life 30 yrs**		361.7	**Referenced to Plant C286**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(24,361,566)									
363 - Service Laterals	**Book Depreciation Life 30 yrs**		363	**Referenced to Plant C271**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(33,494,574)									
364 - Flow Measuring Devices	**Book Depreciation Life 30 yrs**		364	**Referenced to Plant C220**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(40,524)									
371.2 - Pumping Equipment	**Book Depreciation Life 30 yrs**		371.2	**Referenced to Plant C227**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(308,110)									
380 - Treatment and Disposal Equipment	**Book Depreciation Life 30 yrs**		380	**Referenced to Plant C234**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(26,815,877)									
390 - Office Furniture and Equipment	**Book Depreciation Life 30 yrs**		390	**Referenced to Plant C241**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(36,842)									
391 - Transportation Equipment	**Book Depreciation Life 30 yrs**		391	**Referenced to Plant C248**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(496,046)									
394 - Laboratory Equipment	**Book Depreciation Life 30 yrs**		394	**Referenced to Plant C255**								
Begin Balance		0.0333										
Depreciation - Book												
Survivor/Retirement Curve			R2.0									
Projection Life			30									
Average Age			0									
Remaining Life			30									
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%							
Retirements Calculated in Plant												
End Balance - Calculated			(574,242)									
404 - Not Used	**Book Depreciation Life 30 yrs**		404	**Referenced to Plant C262**								
Begin Balance		0.0333										

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
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April 6, 2021

DCF Calculations
270,748,093

DCF Forecast Parameters

	Forecast Rate	Use	Forecast Parameters for Periods 1 to 5	6 to 15	16 to 19	20 to 26	27 to 33	34 to 40	41 to 46	47 to 53	54 to 60
Depreciation - Basis											
Survivor/Retirement Curve			80.0								
Projection Life			80								
Average Age			0								
Remaining Life			80								
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%						
Retirements Calculated in Plant											
End Balance - Calculated											
414 - Not Used	Book Depreciation Life 30 yrs		414	Referenced to Plant C269							
Beginning Balance		0.0333									
Depreciation - Basis											
Survivor/Retirement Curve			R2.0								
Projection Life			30								
Average Age			0								
Remaining Life			30								
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%						
Retirements Calculated in Plant											
End Balance - Calculated											
424 - Not Used	Book Depreciation Life 30 yrs		424	Referenced to Plant C276							
Beginning Balance		0.0333									
Depreciation - Basis											
Survivor/Retirement Curve			R2.0								
Projection Life			30								
Average Age			0								
Remaining Life			30								
Depreciation Rate	Input Positive or Zero		3.33%	3.33%	3.33%						
Retirements Calculating in Plant											
End Balance - Calculated											
Total Balances - Calculated			1275,274,3471								
Balance Check			1275,274,2471								
Difference			-								
Depreciation - MACRS											
			5 to 6	7 to 15	16 to 20	21 to 26	27 to 33	34 to 40	41 to 46	47 to 53	54 to 60
Use Depreciation rate MACRS (1)			1								
			3								
353 - Land & Land Rights - Land	Book Depreciation Life Non-Depr yrs		353	Referenced to Plant C167							
Beginning Balance		0									
Depreciation											
Depreciation Rate	Input Positive or Zero		0.00%	0.00%	0.00%						
Retirements Calculated in Plant											
End Balance - Calculated			3,795,953								
353.05 - Land & Land Rights - Easements	Book Depreciation Life Non-Depr yrs		353.05	Referenced to Plant C164							
Beginning Balance		0									
Depreciation											
Depreciation Rate	Input Positive or Zero		0.00%	0.00%	0.00%						
Retirements Calculated in Plant											
End Balance - Calculated			1,931,554								
354.3 - Structures & Improvements - Pumping	Book Depreciation Life 25 yrs		354.3	Referenced to Plant C171							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			117,196								
354.4 - Structures & Improvements - Treatment	Book Depreciation Life 25 yrs		354.4	Referenced to Plant C178							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			114,542,139								
355.3 - Generating Equipment - Pumping	Book Depreciation Life 25 yrs		385.3	Referenced to Plant C185							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			6,584								
360.23 - Collection Sewers - Force - Mains	Book Depreciation Life 25 yrs		360.23	Referenced to Plant C192							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			86,972								
361 - Mains Gravity	Book Depreciation Life 25 yrs		361	Referenced to Plant C199							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			50,114,124								
363.7 - Collection Sewers - Grants - Manholes	Book Depreciation Life 25 yrs		363.7	Referenced to Plant C206							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			10,656,444								
363 - Service Laterals	Book Depreciation Life 25 yrs		363	Referenced to Plant C213							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			7,553,665								
364 - Flow Measuring Devices	Book Depreciation Life 25 yrs		364	Referenced to Plant C220							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			92,382								
371.2 - Pumping Equipment	Book Depreciation Life 25 yrs		371.2	Referenced to Plant C227							
Beginning Balance		0.04									
Depreciation											
Depreciation Rate	Input Positive or Zero		4.00%	4.00%	4.00%						
Retirements Calculated in Plant											
End Balance - Calculated			77,172								

Appendix A-5-1 (AUS)

24	25	26	27	28	29	[illegible]	31	32
	Input Cost to Allocate below	Account	Description	Allocated RCN	Allocated Depreciation	Condition	%RCNLD	Allocated RPA
%RCNLD	235,000,000							235,000,000
1.62%	3,795,955	353.0	Land & Land Rights - Lanc	3,795,955	-	100.00%	1.62%	3,795,955
0.82%	1,931,465	353.1	Land & Land Rights - Ease	1,931,554	-	100.00%	0.82%	1,931,554
0.05%	117,265	354.3	Stuctures & Improvemen	642,170	524,974	18.25%	0.05%	117,196
48.74%	114,542,055	354.4	Stuctures & Improvemen	251,630,358	137,088,219	45.52%	48.74%	114,542,139
0.00%	6,580	355.3	Generating Equipment - I	43,893	37,309	15.00%	0.00%	6,584
0.04%	86,480	360.2	Collection Sewers - Force	178,713	92,341	48.33%	0.04%	86,372
21.37%	50,214,095	361.0	Mains Gravity	95,609,528	45,395,404	52.52%	21.37%	50,214,124
4.53%	10,656,545	361.7	Collection Sewers - Gravit	35,008,029	24,351,585	30.44%	4.53%	10,656,444
3.38%	7,952,165	363.0	Service Laterals	47,446,629	39,494,574	16.76%	3.38%	7,952,055
0.04%	92,355	364.0	Flow Measuring Devices	152,916	60,524	60.42%	0.04%	92,392
0.03%	77,080	371.2	Pumping Equipment	385,282	308,110	20.03%	0.03%	77,172
19.17%	45,055,845	380.0	Treatment and Disposal	71,871,018	26,815,077	62.69%	19.17%	45,055,941
0.01%	34,310	390.0	Office Furniture and Equi	71,192	36,842	48.25%	0.01%	34,350
0.04%	104,575	391.0	Transportation Equipmer	599,547	495,046	17.43%	0.04%	104,501
0.14%	333,230	394.0	Laboratory Equipment	907,462	574,242	36.72%	0.14%	333,220
0.00%	-	404.0	Not Used	-	-	0.00%	0.00%	-
0.00%	-	414.0	Not Used	-	-	0.00%	0.00%	-
0.00%	-	424.0	Not Used	-	-	0.00%	0.00%	-
0.00%	-	434.0	Not Used	-	-	0.00%	0.00%	-
100.00%	235,000,000			510,274,246	275,274,247			234,999,999

(1,762,074)	(1,474,869)
(875,292)	2,345,772
(863,956)	2,419,482
10,647,347	9,781,391
9,781,391	12,200,873
77,652	188,406
1,762,074	1,456,352
(1,878,445)	(1,689,976)
5,587	(15,876)
(110,784)	(247,500)
(33,132)	(59,094)

2018				2019 Budget			2020 Budget			Average	
Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total		
18,423,487	9,290,350	9,098,115	18,388,465	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
37,437	35,876	32,375	68,253			-					
18,460,924	9,326,228	9,130,490	18,456,718	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
0.0%			0.0%			18.9%			5.2%	4.5%	
											A
3,073,451	2,344,163	604,018	2,948,181							2,995,134	B
691,322	733,208		733,208							736,025	C
3,421,833		5,038,571	5,038,571							3,951,907	D
1,167,728	1,771,822	318,571	2,090,393							1,446,895	E
1,065,711	111,844	287,379	399,223							664,597	F
936,954	1,093,155	31,977	1,125,132							919,709	
461,745	422,825		422,825							413,359	
1,619,646	749,693	869,601	1,619,294							1,591,118	
-			-							-	
-			-							-	
-			-							-	
3,684,717		3,608,871	3,608,871							3,595,194	
2,529,861	1,752,572	588,116	2,340,688							2,429,985	
18,652,968	8,979,282	11,347,104	20,326,386	7,149,639			6,626,949			18,733,925	
	8,979,282	11,347,104									
	-	-									
(192,044)	346,946	(2,216,614)	(1,869,668)								
5,511,854			7,819,736	Treatment							
	42,373	943,287									
		831,000									
		(1,433,176)									
	42,373	341,061									
	389,319	(1,875,553)									
		341,359									
	(341,359)	(2,894,856)									
		209,564									
	47,960	(4,219,486)									
	900,467	65,900,308									
	948,427	61,680,842									

Projections				Forecast Parameters for Periods								
				1-5	6-15	6-15	16-20	21-26	27-33	34-40	40-46	47-53	54-60
See Rate Increase Schedule on tab: DCF Investor Owned Cells: L263:BS263													
2021 Rate Increase over 2018 Rates 41.21%													
102.97%													
Inflation since 3.0%													
Revenue Forecast		1.093		1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60	
Annual Subscriber Growth	Annual Subscriber Growth: All Periods 0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Periodic Subscriber Growth	Periodic Customer Growth: All period 0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Growth	0%												
Period every 7 years	5												
Revenues	18,456,718	1.030	23,519,433	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	2018												
Expense Level 1: Personnel & Ad	4,576,253	1.093	5,001,844	-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Servic	2,111,492	1.093	2,307,861	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	736,025	1.093	804,476	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Cost	5,284,975	1.093	5,776,478	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 5: Depreciation	3,595,194	1.093	3,929,547	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 6: Miscellaneous	2,429,985	1.093	2,655,974	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 7: Not Used			0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Expenses	18,733,925		20,476,180										
check													
Working Capital													
Current Assets				28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	
Current Liabilities				22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	
	1.092727												
	20,168,154.09												

Description	2011	2012	2013 Missing	2014	2015	2016
Assets						
Cash and Cash Equivalents	33,687	40,425		28,562	28,240	31,139
Restricted Assets:						
Cash and Cash Equivalents	13,716,597	9,867,948		9,990,852	4,853,192	10,616,208
Investments	2,147,889	1,729,785		867,279	5,929,255	
	15,864,486	11,597,728	-	10,857,631	10,782,447	10,616,208
Grants Receivable	139,211	41,041				
Net Investment in direct financing lease	59,636,628	56,909,663		50,806,742	47,363,749	43,694,127
Total Assets	**75,674,012**	**68,368,857**	-	**61,692,935**	**58,174,436**	**54,341,474**
Liabilities						
Accounts Payable	7,269	11,514		11,989	14,125	12,208
Obligation to Construct	1,415,607	41,041				
Liabilities Payable from Restricted Assets:						
Accounts Payable	2,038,792	131,235		4,854		
Funds Held on Behalf of the City of York	6,515,576	6,523,809		6,521,898	6,520,699	6,521,720
Due to other Governments						
Bonds Payable:						
Due within a year	4,011,110	4,015,382		4,136,318	4,139,808	3,611,313
Due in more than a year	56,652,690	54,749,661		47,122,545	43,439,090	40,082,814
Total Liabilities	**70,641,844**	**64,466,842**	-	**57,799,574**	**54,133,722**	**50,228,047**
Net Position						
Restricted For:						
Debt Service	2,311,036	1,884,686		868,813	435,810	1,701
Construction	3,172,330	2,857,796		3,462,058	3,825,938	4,092,788
Unrestricted	(451,198)	(820,669)		(437,520)	(221,034)	18,938
Total Net Position	**5,032,168**	**3,922,015**	-	**3,893,361**	**4,040,714**	**4,113,427**
Operating Revenues:						
Lease Investment Income	3,024,064	2,982,510		2,567,708	2,302,642	2,065,646
Total Operating Revenues	**3,024,064**	**2,982,510**	-	**2,567,708**	**2,302,642**	**2,065,646**
Operating Expenses:						
Interest Expense	3,053,870	2,869,805		2,448,005	2,175,897	1,929,156
Professional Services	81,448	22,725		75,560	27,010	7,534
Miscellaneous Expense	28,157	5,797		11,498	24,916	21,068
Total Operating Expenses	**3,163,475**	**2,898,407**	-	**2,535,063**	**2,227,823**	**1,957,760**
Operating Income (LOSS)	**(139,411)**	**84,103**	-	**32,645**	**74,819**	**107,886**
Non Operating Revenues (Expenses):						
Investment Income	105,066	29,574		7,022	1,609	13,717
Miscellaneous Income				63,766	87,015	20,448
Transfers from (to) City of York	2,077,723	(1,217,830)		(78,621)	(16,090)	(69,338)
Total Non-Operating Revenues (Expenses)	**2,182,789**	**(1,188,256)**	-	**(7,833)**	**72,534**	**(35,173)**
Change in Net Position	**2,043,378**	**(1,110,153)**	-	**24,812**	**147,353**	**72,713**
Net Position						
Beginning of Year	2,988,790	5,032,168	3,922,015	3,868,549	3,893,361	4,040,714
End of Year	**5,032,168**	**3,922,015**	3,868,549	**3,893,361**	**4,040,714**	**4,113,427**
Cash Flows From Operating Activities:						
Cash Paid for Administrative Expenses	(111,837)	(24,277)		(83,472)	(49,790)	(30,527)
Net Cash Provided by (used in) operating activities	**(111,837)**	**(24,277)**	-	**(83,472)**	**(49,790)**	**(30,527)**
Cash Flows From Investing Activities:						
Sales (purchases) of investment securities	9,056,758	418,104		1,430,608	(5,061,976)	5,929,255
Cash Received from Others				63,766	87,015	20,448
Interest Received	179,690	23,668		7,022	1,609	13,717
Net Cash provided by (used in) investing activities	**9,236,448**	**441,772**	-	**1,501,396**	**(4,973,352)**	**5,963,420**
Cash Flows From Capital and Related Financing Activities:						
Proceeds from the issuance of debt	1,500,000					
Capital grants received	2,252,889	98,170				
Transfers from (to) City of York	6,197,246	(1,217,830)		(78,621)	(16,090)	(69,338)
Receipt from City of York to fund Future Construction Costs						
Payments received on investment in direct financing lease	5,583,344	5,697,274		5,721,830	5,728,546	5,666,951
Proceeds from (to) other municipalities for capital projects	(1,695,021)	(718,103)				
Receipt from Other Governments to Fund Future Construction						
Transfers from (to) restricted investments accounts	(2,077,723)	1,217,830		78,621	16,090	69,338
Capital assets purchased	(18,924,572)	(3,761,510)		(71,763)	(4,854)	
Principal paid on Revenue bonds	(3,921,721)	(4,013,681)		(4,096,843)	(4,138,318)	(4,139,930)

Interest Paid on Revenue Bonds			(1,767,977)			(1,761,561)					(1,746,239)			(1,699,514)			(1,693,999)	
Net Cash provided by (used in) capital and related financing activities			(12,907,535)			(4,459,411)			-		(193,015)			(114,340)			(166,978)	
Net Increase (Decrease) in cash and Cash Equivalents			**(3,782,924)**			**(4,041,916)**			**-**		**1,224,909**			**(5,137,482)**			**5,765,915**	
Cash and Cash Equivalents:																		
Beginning of Year			17,533,208			13,750,284			9,708,368		8,794,005			10,018,914			4,881,432	
End of Year			**13,750,284**			**9,708,368**			8,794,005		**10,018,914**			**4,881,432**			**10,647,347**	
Reconciliation of Operating Income (loss) to Net Cash Provided by (Used In) Operating Activities:																		
Operating Income (loss)			(139,411)			84,103			-		32,645			74,819			107,886	
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:																		
Interest Expense			3,053,870			2,869,685			-		2,448,005			2,175,897			1,929,158	
Lease investment income			(3,024,064)			(2,982,510)			-		(2,567,708)			(2,302,642)			(2,065,646)	
Changes in assets and liabilities																		
Accounts Payable			(2,232)			4,245					3,586			2,134			(1,925)	
Total Adjustments			27,574			(108,380)					(114,117)			(124,609)			(138,413)	
Net Cash Provided by (used in) operating activities			(111,837)			(24,277)			-		(83,472)			(49,790)			(30,527)	
Non-Cash Capital and Related Financing Activities:																		
Principal accretion of revenue bonds			1,285,893			1,108,324					701,764			476,383			285,159	

	2011			2012			2013			2014			2015			2016			2017	
Supplement City of York Year End December 31, 2017	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund
Operating Revenues																				
Charges for Services			-	7,282,379	9,107,307	16,389,686	7,183,789	9,237,785	16,421,574	7,709,555	9,633,858	17,343,413	8,188,904	9,757,531	17,946,435	8,758,998	9,656,842	18,415,840	9,281,126	9,142,361
Rental Income																				
Revenue from other Local Governments																				
Misc Income			-	46,358	747	47,105	9,119	54,191	63,310	9,019	64,327	73,346	26,975	87,649	114,624	18,099	20,448	38,547	36,997	440
Total Revenues	-	-	-	7,328,737	9,108,054	16,436,791	7,192,908	9,291,976	15,484,884	7,718,574	9,698,185	17,416,759	8,215,879	9,845,180	18,061,059	8,777,097	9,677,290	18,454,387	9,318,123	9,142,801
									0.3%			5.7%			3.7%			2.2%		
Operating Expenses																				
Personnel Services																2,432,314	531,457	2,963,771	2,549,005	524,446
Utilities																783,546		783,546	691,322	
Treatment Costs																	3,395,316	3,395,318		3,421,833
Contractual Services																879,077	203,488	1,082,565	947,445	220,283
Professional Services																349,060	179,797	528,857	537,980	527,733
Materials and Supplies																652,040	45,000	697,040	908,899	28,055
Sludge																355,507		355,507	461,745	
Administrative																698,649	805,766	1,504,415	746,325	873,321
Health Insurance Claims																		-		
Insurance Premiums																		-		
Workers' Compensation Insurance																		-		
Depreciation																	3,491,995	3,491,995		3,684,717
Misc																1,901,604	517,802	2,419,406	1,992,708	537,153
Total Operating Expenses																**8,051,797**	**9,170,623**	**17,222,420**	**8,835,429**	**9,817,539**
Operating Income (Loss)																**725,300**	**506,667**	**1,231,967**	**482,694**	**(674,738)**
																		5,231,411		
Nonoperating Revenue (expenses)																				
Grants																				
Investment Income																15,376	1,046,174		16,840	1,160,219
Contributions																				
Springettsbury Capacity Sale																	831,000			831,000
Interest Expense																	(2,018,822)			(2,198,405)
Total Nonoperating Revenue (expenses)																**15,376**	**(141,644)**		**16,840**	**(207,186)**
Change in Net Position before transfers																**740,676**	**365,023**		**499,534**	**(881,924)**
Transfers In																	613,430			357,784
Transfers Out																(613,430)	(3,177,065)		(357,784)	(2,846,902)
Contributed Capital																				
Change in Net Position																**127,246**	**(2,198,612)**		**141,750**	**(3,371,042)**
Net Position Beginning of year																1,873,904	71,836,928		2,001,150	
Net Position End of Year																**2,001,150**	**69,638,316**		**2,142,900**	**(3,371,042)**

2017	2018
3,140	28,201
9,778,251	12,172,674
9,778,251	12,172,674
38,362,814	34,649,981
48,144,205	46,850,856
17,787	1,911
67,960	36,399
5,972,675	6,229,920
	2,159,930
3,732,834	3,819,368
34,649,981	30,830,613
44,421,236	43,078,141
3,538	2,909
3,718,380	3,743,513
1,053	26,291
3,722,969	3,772,713
1,878,445	1,689,976
1,878,445	1,689,976
1,762,074	1,458,352
22,869	25,027
15,850	18,191
1,800,793	1,501,570
77,652	188,406
42,466	132,754
	50
(510,578)	(271,466)
(468,110)	(138,662)
(390,458)	49,744
4,113,427	3,722,969
3,722,969	3,772,713
(33,132)	(59,094)
(33,132)	(59,094)
	50
42,468	132,754
42,468	132,804
(72,127)	(15,044)
4,936,548	176,790
	5,488,264
72,127	2,369,514
(438,451)	15,044
(3,411,813)	(496,094)
	(3,712,833)

(1,762,074)											(1,474,869)
(875,292)											2,345,772
(865,956)											2,419,482
10,647,347											9,781,391
9,781,391											12,200,873
77,652											188,406
1,762,074											1,458,352
(1,878,445)											(1,689,976)
3,587											(19,876)
(110,784)											(247,500)
(33,132)											(59,094)

	2018			2019 Budget			2020 Budget			Average	
Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total		
18,423,487	9,290,350	9,098,115	18,388,465	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
37,437	35,878	32,375	68,253			-					
18,460,924	9,326,228	9,130,490	18,456,718	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
0.0%			0.0%			18.9%			5.2%	4.5%	
3,073,451	2,344,363	604,018	2,948,381							A	2,995,134
691,322	733,208		733,208							C	736,025
3,421,833		5,038,571	5,038,571							D	3,951,907
1,167,728	1,771,822	318,571	2,090,393							B	1,446,895
1,065,713	111,844	287,379	399,223							B	664,597
936,954	1,093,155	31,977	1,125,132							D	919,709
461,745	422,825		422,825							D	413,359
1,619,646	749,693	869,601	1,619,294							A	1,581,118
-			-								-
-			-								-
-			-								-
3,684,717		3,608,871	3,608,871							E	3,595,194
2,529,861	1,752,572	588,116	2,340,688							F	2,429,985
18,652,968	8,979,282	11,347,104	20,326,386	7,149,639			6,626,949				18,733,925
	8,979,282	11,347,104									
	-	-									
(192,044)	346,946	(2,216,614)	(1,869,668)								
5,511,854			7,319,736	Treatment							
	42,373	943,237									
		831,000									
		(1,433,176)									
	42,373	341,061									
	389,319	(1,875,553)									
		341,859									
	(341,859)	(2,894,856)									
		209,584									
	47,960	(4,219,466)									
	900,467	65,900,308									
	948,427	61,680,842									

Projections			Forecast Parameters for Periods								
			1-5	6-15	6-15	16-20	21-26	27-33	34-40	40-46	47-53	54-60
See Rate Increase Schedule on tab: DCF Investor Owned Cells: L283:R5263												
2021 Rate Increase over 2018 Rates 43.21%												
102.97%												
Inflation since 3.0%												
Revenue Forecast		1.093	1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60	
Annual Subscriber Growth	Annual Subscriber Growth: All Periods 0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Periodic Subscriber Growth	Periodic Customer Growth: All period 0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Growth	0%											
Period Every 7 years	5											
Revenues	18,456,718	1.030	23,519,433	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	2018											
Expense Level 1: Personnel & Ac	4,576,253	1.093	5,001,844	-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Servic	2,111,492	1.093	2,307,861	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	736,025	1.093	804,476	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Cost	5,284,975	1.093	5,776,478	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 5: Depreciation	3,595,194	1.093	3,929,547	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 6: Miscellaneous	2,429,965	1.093	2,655,974	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 7: Not Used			0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Expenses	18,733,925		20,476,180									
check												
Working Capital												
Current Assets				28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Current Liabilities				22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
	1.092727											
	20,168,154.09											

Appendix A-5-1 (AUS)

\\aus-dc1\Shared\water industry\PA America - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

DCF Forecast Parameters

\\aus-dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

DCF Forecast Parameters

\\aus-dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

DCF Forecast Parameters

Appendix A-5-1 (AUS)

\\aus-dc1\Shared\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

DCF Forecast Parameters

Description	2011	2012	2013 Missing	2014	2015	2016
Assets						
Cash and Cash Equivalents	33,687	40,425		28,562	28,240	31,139
Restricted Assets:						
Cash and Cash Equivalents	13,716,597	9,867,943		9,990,352	4,853,192	10,616,208
Investments	2,147,889	1,729,785		867,279	5,929,255	
	15,864,486	**11,597,728**	-	**10,857,631**	**10,782,447**	**10,616,208**
Grants Receivable	199,211	41,041				
Net Investment in direct financing lease	59,636,628	56,909,663		50,806,742	47,363,749	43,694,127
Total Assets	**75,674,012**	**68,388,857**	-	**61,692,935**	**58,174,436**	**54,341,474**
Liabilities						
Accounts Payable	7,269	11,514		11,989	14,125	12,208
Obligation to Construct	1,415,607	41,041				
Liabilities Payable from Restricted Assets:						
Accounts Payable	2,088,792	131,235		4,854		
Funds Held on Behalf of the City of York	6,516,576	6,523,809		6,521,998	6,520,699	6,521,720
Due to other Governments						
Bonds Payable:						
Due within a year	4,011,110	4,015,382		4,136,318	4,139,808	3,611,314
Due in more than a year	56,653,490	53,743,861		47,122,535	43,469,099	46,082,814
Total Liabilities	**70,641,844**	**64,466,842**	-	**57,799,574**	**54,133,722**	**56,228,047**
Net Position						
Restricted For:						
Debt Service	2,311,036	1,884,838		868,813	435,810	1,701
Construction	3,172,330	2,857,796		3,462,066	3,825,938	4,092,788
Unrestricted	(451,198)	(820,669)		(437,520)	(221,034)	18,938
Total Net Position	**5,032,168**	**3,922,015**	-	**3,893,361**	**4,040,714**	**4,113,427**
Operating Revenues:						
Lease Investment Income	3,024,064	2,982,510		2,567,708	2,302,642	2,065,646
Total Operating Revenues	**3,024,064**	**2,982,510**		**2,567,708**	**2,302,642**	**2,065,646**
Operating Expenses:						
Interest Expense	3,053,870	2,849,885		2,448,005	2,175,897	1,929,158
Professional Services	81,448	22,725		75,560	27,010	7,534
Miscellaneous Expense	28,157	5,797		11,498	24,916	21,068
Total Operating Expenses	**3,163,475**	**2,898,407**	-	**2,535,063**	**2,227,823**	**1,957,760**
Operating Income (LOSS)	**(139,411)**	**84,103**	-	**32,645**	**74,819**	**107,886**
Non Operating Revenues (Expenses):						
Investment Income	105,066	23,574		7,022	1,609	13,717
Miscellaneous Income				63,766	87,015	20,448
Transfers from (to) City of York	2,077,723	(1,217,830)		(78,621)	(16,090)	(69,338)
Total Non-Operating Revenues (Expenses)	**2,182,789**	**(1,194,256)**	-	**(7,833)**	**72,534**	**(35,173)**
Change in Net Position	**2,043,378**	**(1,210,153)**	-	**24,812**	**147,353**	**72,713**
Net Position						
Beginning of Year	2,988,790	**5,032,168**	**3,922,015**	**3,868,549**	**3,893,361**	**4,040,714**
End of Year	**5,032,168**	**3,922,015**	3,868,549	**3,893,361**	**4,040,714**	**4,113,427**
Cash Flows From Operating Activities:						
Cash Paid for Administrative Expenses	(111,837)	(24,277)		(83,472)	(49,790)	(30,527)
Net Cash Provided by (used in) operating activities	**(111,837)**	**(24,277)**	-	**(83,472)**	**(49,790)**	**(30,527)**
Cash Flows From Investing Activities:						
Sales (purchases) of investment securities	9,056,758	418,104		1,430,608	(5,041,976)	5,929,255
Cash Received from Others				63,766	87,015	20,448
Interest Received	179,690	23,668		7,022	1,609	13,717
Net Cash provided by (used in) investing activities	**9,236,448**	**441,772**		**1,501,396**	**(4,973,352)**	**5,963,420**
Cash Flows From Capital and Related Financing Activities:						
Proceeds from the issuance of debt	1,500,000					
Capital grants received	2,252,889	98,170				
Transfers from (to) City of York	6,197,246	(1,217,830)		(78,621)	(16,090)	(69,338)
Receipt from City of York to fund Future Construction Costs						
Payments received on investment in direct financing lease	5,533,344	5,697,274		5,721,830	5,728,346	5,668,951
Proceeds from (to) other municipalities for capital projects	(1,699,021)	(718,103)				
Receipt from Other Governments to Fund Future Construction						
Transfers from (to) restricted investments accounts	(2,077,723)	1,217,830		78,621	16,090	69,338
Capital assets purchased	(18,924,572)	(3,763,518)		(71,763)	(4,854)	
Principal paid on Revenue bonds	(3,921,721)	(4,013,681)		(4,086,843)	(4,338,316)	(4,139,930)

Appendix A-5-1 (AUS)

Interest Paid on Revenue Bonds	(1,767,977)	(1,761,581)	(1,746,289)	(1,699,514)	(1,693,999)
Net Cash provided by (used in) capital and related financing activities	(12,907,535)	(4,459,411)	(193,015)	(114,340)	(168,978)
Net Increase (Decrease) in cash and Cash Equivalents	**(3,782,924)**	**(4,041,916)**	**1,224,909**	**(5,137,482)**	**5,765,915**
Cash and Cash Equivalents:					
Beginning of Year	17,533,208	13,750,284	9,708,368	8,794,005	10,018,914
End of Year	13,750,284	9,708,368	8,794,005	10,018,914	4,881,432
					10,647,347
Reconciliation of Operating Income (loss) to Net Cash Provided by (Used In) Operating Activities:					
Operating Income (loss)	(139,411)	84,103	32,645	74,819	107,886
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:					
Interest Expense	3,053,870	2,869,585	2,448,005	2,175,897	1,929,158
Lease Investment Income	(3,024,064)	(2,982,510)	(2,567,708)	(2,302,642)	(2,065,646)
Changes in assets and liabilities					
Accounts Payable	(2,232)	4,245	3,586	2,136	(1,925)
Total Adjustments	27,574	(108,380)	(116,117)	(124,609)	(138,413)
Net Cash Provided by (used in) operating activities	(111,837)	(24,277)	(83,472)	(49,790)	(30,527)
Non-Cash Capital and Related Financing Activities:					
Principal accretion of revenue bonds	1,285,893	1,308,324	701,706	476,383	235,159

	2011			2012			2013			2014			2015			2016			2017	
Supplement City of York Year End December 31, 2017	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund
Operating Revenues																				
Charges for Services		-		7,282,379	9,107,807	16,389,686	7,183,789	9,237,785	16,421,574	7,709,555	9,633,858	17,343,413	8,188,904	9,757,531	17,946,435	8,758,998	9,656,842	18,415,840	9,281,126	9,142,961
Rental Income																				
Revenue from other Local Governments																				
Misc Income		-		46,358	747	47,105	9,119	54,191	63,310	9,019	64,327	73,346	26,975	87,649	114,624	18,099	20,448	38,547	36,597	440
Total Revenues		-	-	7,328,737	9,108,054	16,436,791	7,192,908	9,291,976	16,484,884	7,718,574	9,698,185	17,416,759	8,215,879	9,845,180	18,061,059	6,777,097	9,677,290	18,454,387	9,318,123	9,142,801
									0.3%			5.7%			3.7%			2.2%		
Operating Expenses																				
Personnel Services																2,432,314	531,457	2,963,771	2,569,005	524,446
Utilities																783,546		783,546	691,322	
Treatment Costs																	3,395,318	3,395,318		3,421,833
Contractual Services																879,077	203,488	1,082,565	947,445	220,283
Professional Services																349,060	179,797	528,857	537,980	527,731
Materials and Supplies																652,040	45,000	697,040	908,899	28,055
Sludge																355,507		355,507	461,745	
Administrative																698,649	805,766	1,504,415	746,329	873,321
Health Insurance Claims																		-		
Insurance Premiums																		-		
Workers' Compensation Insurance																		-		
Depreciation																	3,491,995	3,491,995		3,664,717
Misc																1,901,604	517,802	2,419,406	1,992,708	537,153
Total Operating Expenses																8,051,797	9,170,623	17,222,420	8,835,429	9,817,539
Operating Income (loss)																725,300	506,667	1,231,967	482,694	(674,738)
																		5,231,411		
Nonoperating Revenue (expenses)																				
Grants																				
Investment Income																15,376	1,046,176		16,840	1,160,219
Contributions																				
Springettsbury Capacity Sale																	831,000			831,000
Interest Expense																	(2,018,822)			(2,198,405)
Total Nonoperating Revenue (expenses)																15,376	(141,644)		16,840	(207,186)
Change in Net Position before transfers																740,676	365,023		499,534	(881,924)
Transfers In																	613,430			357,784
Transfers Out																(613,430)	(3,177,065)		(357,784)	(2,846,902)
Contributed Capital																				
Change in Net Position																127,246	(2,198,612)		141,750	(3,371,042)
Net Position Beginning of year																1,873,904	71,836,928		2,001,150	
Net Position End of Year																2,001,150	69,638,316		2,142,900	(3,371,042)

Appendix A-5-1 (AUS)

2017	2018
8,140	28,203
9,778,251	12,172,674
9,778,251	12,172,674
38,362,814	34,649,981
48,144,205	46,850,856
17,787	1,911
67,960	36,359
5,972,675	6,229,920
	2,159,930
3,712,833	3,819,368
34,649,981	30,830,613
44,421,236	43,078,141
3,556	2,909
3,718,350	3,743,513
1,053	26,291
3,722,969	3,772,713
1,878,445	1,689,976
1,878,445	1,689,976
1,762,074	1,458,352
22,869	24,027
15,850	18,191
1,800,793	1,501,570
77,652	188,406
42,468	132,754
	50
(510,578)	(271,466)
(468,110)	(138,662)
(390,458)	49,744
4,113,427	3,722,969
3,722,969	3,772,713
(33,132)	(59,094)
(33,132)	(59,094)
	50
42,468	132,754
42,468	132,804
(72,127)	(15,048)
	176,790
4,936,546	5,483,264
	2,369,514
72,127	15,048
(438,451)	(496,094)
(3,631,313)	(3,712,833)

Appendix A-5-1 (AUS)

(1,762,074)	(1,474,869)
(875,282)	2,345,772
(865,956)	2,419,482
10,647,347	9,781,391
9,781,391	12,200,873
77,652	188,406
1,762,074	1,458,352
(1,878,445)	(1,689,976)
5,587	(15,876)
(110,784)	(247,500)
(33,132)	(59,094)

	2018			2019 Budget			2020 Budget			Average	
Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total		
18,423,487	9,290,350	9,098,115	18,388,465	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
37,437	39,878	32,375	68,253			-			-		
18,460,924	9,326,228	9,130,490	18,456,718	9,846,775	12,100,695	21,947,470	8,751,934	14,341,968	23,093,902		
0.0%			0.0%			18.9%			5.2%	4.5%	
											A
3,073,451	2,344,163	604,018	2,948,181							2,995,134	B
691,322	733,208		733,208							736,025	C
3,421,833		5,038,571	5,038,571							3,951,907	D
1,167,728	1,771,823	618,571	2,090,393							1,446,895	E
1,065,711	111,844	287,379	399,223							664,597	F
936,954	1,093,155	31,977	1,125,132							919,709	G
461,745	422,825		422,825							413,359	H
1,619,646	749,693	869,601	1,619,294							1,581,118	I
-			-							-	
-			-							-	
-			-							-	
3,684,717		4,608,871	3,608,871							3,595,194	E
2,529,861	1,752,572	986,116	2,340,688							2,429,985	F
18,652,968	8,979,282	11,347,104	20,326,386	7,349,839			6,626,949			18,733,925	
	8,979,282	11,347,104									
(192,044)	346,946	(2,216,614)	(1,869,668)								
5,511,854			7,319,736	Investment							
	42,373	943,237									
		831,068									
		(1,433,176)									
	42,373	341,061									
	389,319	(1,875,553)									
		841,659									
	(341,359)	(2,898,856)									
		209,584									
	47,960	(4,219,466)									
	900,467	65,900,308									
	948,427	61,680,842									

Projections				Forecast Parameters for Periods 1-5	6-15	6-15	16-20	21-26	27-33	34-40	40-46	47-53	54-60
See Rate Increase Schedule on tab: DCF Investor Owned Cells: L263:85263													
2021 Rate Increase over 2018 Rates 41.21%													
102.97%													
Inflation since 3.0%													
Revenue Forecast		1.093		1-5	6-15	16-19	20-26	27-33	34-40	40-46	47-53	54-60	
Annual Subscriber Growth	Annual Subscriber Growth: All Periods 0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Periodic Subscriber Growth	Periodic Customer Growth: All period 0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Growth	0%												
Period every 7 years	5												
Revenues	18,456,718	1.030	23,519,433	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	2018												
Expense Level 1: Personnel & Ad	4,576,253	1.093	5,001,844	-2.0%	-4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 2: Contract Servic	2,111,492	1.093	2,307,861	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 3: Utilities	736,025	1.093	804,476	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 4: Treatment Cost	5,284,975	1.093	5,776,478	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 5: Depreciation	3,595,194	1.093	3,929,547	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Expense Level 6: Miscellaneous	2,429,985	1.093	2,655,974	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expense Level 7: Not Used			0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Expenses	18,733,925		20,476,180										
check													
Working Capital													
Current Assets				28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	
Current Liabilities				22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	
	1.092727												
	20,168,154.09												

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Market Approach

AUS Consultants
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Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

Central Tendancy and Reliability Analysis

Market Sales Analysis - PP/OCLD

	Simple	Weighted
Mean	1.7594	1.8494
Standard Deviation	0.5882	0.4204
Median	1.49	1.4355
Mode	1.4418	1.4418
Conclusion		1.8494 AUS Input

The York City Sewer Authority Wastewater System OCLD	115,727,779	Cost Approach OCLD
Market Value Indication	**214,026,955**	

Market Sales Analysis - PP/CORLD

	Simple	Weighted
Mean	0.8087	0.9337
Standard Deviation	0.1746	0.1695
Median	0.8229	0.7558
Mode	0.6918	0.6918
Conclusion		0.9337 AUS Input

The York City Sewer Authority Wastewater System CORLD	236,987,901	Cost Approach - CORLD
Market Value Indication	**221,275,603**	

Market Sales Analysis - PP/Customer

	Simple	Weighted
Water Treatment & Distribution		
Mean	6,123	10,962
Standard Deviation		4,613
Median	5,021	4,963
Wastewater Collection & Treatment		16,785
Mean	9,579	
Standard Deviation		AUS Input
Median	8,754	
Wastewater Collection		
Mean	6,507	
Standard Deviation		
Median	6,636	
Wastewater Treatment Only		
Mean	3,072	
Standard Deviation		
Median	2,118	

The York City Sewer Authority Wastewater System Customers	13,733	AUS Input
Wastewater Collection & Treatment PP/Customer	8,754	AUS Input
Collection and Treatement Customers Market Value Indic	**120,218,682**	
Treatement Only Market Value Indication		
Treatment Only PP/customer	2,118	AUS Input
York's Treatment Only Customers	34,490	AUS Input
Market Value Indication Treatment Only	**73,049,820**	
Total Market Value Indication	**193,268,502**	

Financial Basis[1]

Financial Markets	Market Value per Share to Book Value per Share	
Market to Book (equity)	3.40	
Market to Book (equity and debt)	2.11	
Use (equity and debt)	2.11	AUS Input

The York City Sewer Authority Wastewater System OCLD	97,106,105	Cost Approach - OCLD
Market Value Indication	**204,893,882**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-5)

	Simple	Weighted
Mean	17.48	15.32
Standard Deviation	5.71	5.10
Median	17.41	18.13
Mode	Not Applicable	Not Applicable
Forecast		
Conclusion		18.00 AUS Input

The York City Sewer Authority Wastewater System Cash Flows	13,874,600	Income Approach
Market Value Indication	**249,742,796**	

Market Sales Analysis - PP/Cash Flows (EBITDA Period 1-13)

	Simple	Weighted
Mean	11.62	11.45
Standard Deviation	2.67	2.14
Median	11.65	12.07
Mode	Not Applicable	Not Applicable
Forecast		
Conclusion		12.00 AUS Input

The York City Sewer Authority Wastewater System Cash Flows	18,001,021	Income Approach
Market Value Indication	**216,012,253**	

Summary of Market Analyses

Indicators	
OCLD	214,026,955
CORLD	221,275,603
Customers	193,268,502
Cash Flows	
EBITDA Periods 1-5	249,742,796
EBITDA Periods 1-13	216,012,253
Value Line	204,893,882
Mean	216,536,665
Median	215,019,604
Conclusion	**221,275,603**

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Analysis - PP/OCLD

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Depreciated Original Cost (OCLD) (AUS Consultants Determination)	Purchase Price to (PP/OCLD)	Variance to Simple Mean	Variance to Wtd Mean	(Variance to Wtd Mean)^2
City of McKeesport	Wastewater Collection and Treatment	159,000,000	18%	80,085,602	1.9854	0.2225	0.128	0.0163
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29,500,000	3%	18,567,728	1.5888	-0.1741	-0.269	0.0724
Limerick Township	Wastewater Collection and Treatment System	64,373,378	7%	46,153,867	1.3948	-0.3681	-0.463	0.2144
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,000,000	1%	5,383,591	0.9287	-0.8342	-0.9291	0.8632
Mahoning	Water Distribution System	4,734,800	1%	3,507,138	1.3500	-0.4129	-0.5078	0.2579
Mahoning	Wastewater Collection	4,765,200	1%	3,234,859	1.4731	-0.2898	-0.3847	0.148
Cheltenham	Wastewater Collection	50,250,000	6%	15,784,463	3.1835	1.4206	1.3257	1.7575
Steelton	Water Distribution and Treatment	21,750,000	3%	14,433,435	1.5069	-0.256	-0.3509	0.1231
Sadsbury	Wastewater Collection	8,600,000	1%	6,128,876	1.4032	-0.3597	-0.4546	0.2067
Exeter	Wastewater Collection and Treatment	96,000,000	11%	40,057,634	2.3965	0.6336	0.5387	0.2902
East Norriton	Wastewater Collection	21,000,000	2%	8,407,007	2.4979	0.735	0.6401	0.4097
Kane	Wastewater Collection and Treatment	17,560,000	2%	12,070,455	1.4548	-0.3081	-0.403	0.1624
Royersford	Wastewater Collection and Treatment	13,000,000	2%	5,173,559	2.5128	0.7499	0.655	0.429
Valley	Water Treatment and Distribution System	7,325,000	1%	5,370,438	1.3639	-0.399	-0.4939	0.2439
Valley	Wastewater Collection System	13,950,000	2%	9,214,738	1.5139	-0.249	-0.3439	0.1183
Delaware County Regional Water Quality A	Wastewater Collection and Treatment	276,500,000	32%	191,774,486	1.4418	-0.3211	-0.416	0.1731
Upper Pottsgrove	Wastewater Collection	13,750,000	2%	11,769,925	1.1682	-0.5947	-0.6896	0.4755
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53,000,000	6%	20,644,920	2.5672	0.8043	0.7094	0.5032
		860,058,378	100%	497,762,721	1.7278			6.4648

Simple Mean				Square Root((Variance to Wtd Mean)^2 /Count
		1.7629		
Standard Deviation		0.5917		2.542597
Simple Median		1.4900		16
Simple Mode	DELCOR	1.4418		0.641255
Weighted Mean		1.858		
Standard Deviation		0.4271		
Wtd Median		1.4355		
Wtd Mode	DELCOR	1.4418		

Property Acquired		Depreciated Original Cost (OCLD) (AUS Consultants Determination)	Purchase Price to (PP/OCLD)	Accumulated OCLD
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,383,591	0.9287	5,383,591
Upper Pottsgrove	Wastewater Collection	11,769,925	1.1682	17,153,516
Mahoning	Water Distribution System	3,507,138	1.35	20,660,654
Valley	Water Treatment and Distribution System	5,370,438	1.3639	26,031,092
Limerick Township	Wastewater Collection and Treatment System	46,153,867	1.3948	72,184,959
Sadsbury	Wastewater Collection	6,128,876	1.4032	78,313,835
Delaware County Regional Water Quality A	Wastewater Collection and Treatment	191,774,486	1.4418	270,088,321
Kane	Wastewater Collection and Treatment	12,070,455	1.4548	282,158,776
Mahoning	Wastewater Collection	3,234,859	1.4731	285,393,635
Steelton	Water Distribution and Treatment	14,433,435	1.5069	299,827,070
Valley	Wastewater Collection System	9,214,738	1.5139	309,041,808
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	18,567,728	1.5888	327,609,536
City of McKeesport	Wastewater Collection and Treatment	80,085,602	1.9854	407,695,138
Exeter	Wastewater Collection and Treatment	40,057,634	2.3965	447,752,772
East Norriton	Wastewater Collection	8,407,007	2.4979	456,159,779
Royersford	Wastewater Collection and Treatment	5,173,559	2.5128	461,333,338
Cheltenham	Wastewater Collection	15,784,463	3.1835	477,117,801
		477,117,801	2.5672	

Middle OCLD		238,558,901
Bottom value of the range containing the Middle Value	1.4032	78,313,835
Top value of the range containing the Middle Value	1.4418	270,088,321
Range containing the middle value	0.0386	191,774,486
Range from bottom value to middle value	0.0323	160,245,066
Median Value	1.4355	

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Market Sales Analysis - PP/CORLD

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Replacement Cost New less Depreciation (CORLD)	Purchase Price to CORLD	Variance to Simple Mean	Variance to Wtd Mean	Variance to Wtd Median²
City of McKeesport	Wastewater Collection and Treatment	159,000,000	18%	156,524,909	1.0158	0.2057	0.0771	0.0059
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29,500,000	3%	30,615,410	0.9636	0.1535	0.0249	0.0006
Limerick Township	Wastewater Collection and Treatment System	64,373,378	7%	73,068,377	0.881	0.0709	-0.0577	0.0033
East Bradford Township	Wastewater Collection and paid for treatment Capacity	5,000,000	1%	9,236,581	0.5413	-0.2688	-0.3974	0.1579
Mahoning	Water Distribution System	4,734,800	1%	8,899,336	0.532	-0.2781	-0.4067	0.1654
Mahoning	Wastewater Collection	4,765,200	1%	7,991,234	0.5963	-0.2138	-0.3424	0.1172
Cheltenham	Wastewater Collection	50,250,000	6%	49,940,486	1.0062	0.1961	0.0675	0.0046
Steelton	Water Distribution and Treatment	21,750,000	3%	23,921,473	0.9092	0.0991	-0.0295	0.0009
Sadsbury	Wastewater Collection	8,600,000	1%	8,517,587	1.0097	0.1996	0.071	0.005
Exeter	Wastewater Collection and Treatment	96,000,000	11%	99,589,819	0.964	0.1539	0.0253	0.0006
East Norriton	Wastewater Collection	21,000,000	2%	27,461,356	0.7647	-0.0454	-0.174	0.0303
Kane	Wastewater Collection and Treatment	17,560,000	2%	29,015,055	0.6052	-0.2049	-0.3335	0.1112
Royersford	Wastewater Collection and Treatment	13,000,000	2%	13,376,109	0.9719	0.1618	0.0332	0.0011
Valley	Water Treatment and Distribution System	7,325,000	1%	11,664,026	0.628	-0.1821	-0.3107	0.0965
Valley	Wastewater Collection System	13,950,000	2%	19,252,333	0.7246	-0.0855	-0.2141	0.0458
Delaware County Regional Water Quality Authority	Wastewater Collection and Treatment	276,500,000	32%	399,664,111	0.6918	-0.1183	-0.2469	0.061
Upper Pottsgrove	Wastewater Collection	13,750,000	2%	18,460,028	0.7449	-0.0652	-0.1938	0.0376
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53,000,000	6%	51,414,555	1.0308	0.2207	0.0921	0.0085
		860,058,378	100%	1,038,612,785	0.8281			

Simple Mean	0.8101
Standard Deviation	0.1757
Simple Median	0.8229
Simple Mode	0.6918
Weighted Mean	0.9387
Standard Deviation	0.172
Wtd Median	0.7558
Wtd Mode	0.6918

Property Acquired	Type of System and Attributes	Purchase Price (PP)	Proportion of Purchase Price to Total	Replacement Cost New less Depreciation (CORLD)	Purchase Price to CORLD	Accumulated CORLD
Mahoning	Water Distribution System	4734800	1%	8899336	0.532	8,899,336
East Bradford Township	Wastewater Collection and Paid for treatment Capacity	5000000	1%	9236581	0.5413	18,135,917
Mahoning	Wastewater Collection	4765200	1%	7991234	0.5963	26,127,151
Kane	Wastewater Collection and Treatment	17560000	2%	29015055	0.6052	55,142,206
Valley	Water Treatment and Distribution System	7325000	1%	11664026	0.628	66,806,232
Delaware County Regional Water Quality Authority	Wastewater Collection and Treatment	276500000	32%	399664111	0.6918	466,470,343
Valley	Wastewater Collection System	13950000	2%	19252333	0.7246	485,722,676
Upper Pottsgrove	Wastewater Collection	13750000	2%	18460028	0.7449	504,182,704
East Norriton	Wastewater Collection	21000000	2%	27461356	0.7647	531,643,060
Limerick Township	Wastewater Collection and Treatment System	64373378	7%	73068377	0.881	604,711,437
Steelton	Water Distribution and Treatment	21750000	3%	23921473	0.9092	628,633,910
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	29500000	3%	30615410	0.9636	659,249,320
Exeter	Wastewater Collection and Treatment	96000000	11%	99589819	0.964	758,839,139
Royersford	Wastewater Collection and Treatment	13000000	2%	13376109	0.9719	772,215,248
Cheltenham	Wastewater Collection	50250000	6%	49940486	1.0062	822,155,734
Sadsbury	Wastewater Collection	8600000	1%	8517587	1.0097	830,673,321
City of McKeesport	Wastewater Collection and Treatment	159000000	18%	156524909	1.0158	987,198,230
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	53000000	6%	51414555	1.0308	1,038,612,785
		860058378	1	1038612785	0.8281	

Weighted Wtd Median	0.7558
Bottom value of the range containing the Wtd Median	0.7449
Top value of the range containing the Wtd Median	0.7558
Range containing the Wtd Median	0.0109
Range from bottom value to Wtd Median	0.0109
Median Value	0.7558

[illegible]

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Market Sales Analysis - PP/Customers

Property Acquired	Type of System and Attributes		Asset Purchase Agreement (APA) Date	Purchase Price (PP)	[illegible]	Customers	[illegible]	[illegible]	[illegible]	[illegible]
City of McKeesport	Wastewater Collection and Treatment	2	2016.67	159,000,000	18%	21,953	7,243	(736)	(3,748)	14,047,504
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2	2016.59	29,500,000	3%	2,106	14,008	6,029	3,017	9,102,289
Limerick Township	Wastewater Collection and Treatment System	2	2016.88	64,373,378	7%	5,434	11,846	3,867	855	731,025
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2	2017.94	5,000,000	1%	1,248	4,006	(3,973)	(6,985)	48,790,225
Mahoning	Water Distribution System	1	2018.30	4,734,800	1%	1,186	3,992	(3,987)	(6,999)	48,986,001
Mahoning	Wastewater Collection	1	2018.30	4,765,200	1%	1,451	3,284	(4,695)	(7,707)	59,397,849
Cheltenham	Wastewater Collection	1	2018.42	50,250,000	6%	10,500	4,786	(3,193)	(6,205)	38,502,025
Steelton	Water Distribution and Treatment	1	2018.87	21,750,000	3%	2,325	9,355	1,376	(1,636)	2,676,496
Sadsbury	Wastewater Collection	1	2017.00	8,600,000	1%	998	8,617	638	(2,374)	5,635,876
Exeter	Wastewater Collection and Treatment	2	2018.41	96,000,000	11%	9,000	10,667	2,688	(324)	104,976
East Norriton	Wastewater Collection	1	2018.83	21,000,000	2%	4,950	4,242	(3,737)	(6,749)	45,549,001
Kane	Wastewater Collection and Treatment	2	2018.75	17,560,000	2%	2,006	8,754	775	(2,237)	5,004,169
Royersford	Wastewater Collection and Treatment	2	2019.54	13,000,000	2%	1,596	8,145	166	(2,846)	8,099,716
Valley	Water Treatment and Distribution System	1	2019.96	7,325,000	1%	1,459	5,021	(2,958)	(5,970)	35,640,900
Valley	Wastewater Collection System	1	2019.96	13,950,000	2%	1,644	8,485	506	(2,506)	6,280,036
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2	2020.00	276,500,000	32%	16,473	16,785	8,806	5,794	33,570,436
Upper Pottsgrove	Wastewater Collection	1	2020.33	13,750,000	2%	1,428	9,629	1,650	(1,362)	1,855,044
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2	2020.71	53,000,000	6%	11,151	4,753	(3,226)	(6,238)	38,912,644
				860,058,378	100%	96,908	8,875			

Simple Mean		7979
Standard Deviation		3648
Simple Median		8,315
Simple Mode		16,785
Weighted Mean		10991
Standard Deviation		4604
Wtd Median		4,963
Wtd Mode		16,785
[illegible]	[illegible]	7,612
	[illegible]	7,313

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	[illegible]	Customers	[illegible]	[illegible]
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	1,451	3,284	[illegible]
Mahoning	Water Distribution System	2018.30	4,734,800	1%	1,186	3,992	[illegible]
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	1,248	4,006	[illegible]
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	4,950	4,242	[illegible]
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	11,151	4,753	[illegible]
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	10,500	4,786	[illegible]
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	1,459	5,021	[illegible]
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	21,953	7,243	[illegible]
Royersford	Wastewater Collection and Treatment	2019.54	13,000,000	2%	1,596	8,145	[illegible]
Valley	Wastewater Collection System	2019.96	13,950,000	2%	1,644	8,485	[illegible]
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	998	8,617	[illegible]
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	2,006	8,754	[illegible]
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	2,325	9,355	[illegible]
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	1,428	9,629	[illegible]
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	9,000	10,667	[illegible]
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	5,434	11,846	[illegible]
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	2,106	14,008	[illegible]
Delaware County Regional Water Quality Au	Wastewater Collection and Treatment	2020.00	276,500,000	32%	16,473	16,785	[illegible]
			860,058,378	100%	96,908	8,875	

[illegible]

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	[illegible]	Customers	[illegible]	[illegible]
[illegible]							

[illegible]

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Market Sales Analysis - PP/Cash Flow (EBITDA Periods 1-5)

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-5)	Purchase Price to Cash Flow	Variance to Simple Mean	Variance to Wtd Mean	Variance Squared	Wtd Mean Cash Flow
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	7,409,096	21.46	3.96	6.11	37.33	3.97
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	1,717,347	17.18	(0.32)	1.83	3.35	0.59
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	3,542,124	18.17	0.67	2.82	7.95	1.36
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	283,367	17.64	0.14	2.29	5.24	0.10
Mahoning	Water Distribution System	2018.30	4,734,800	1%	233,922	20.24	2.74	4.89	23.91	0.11
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	233,922	20.37	2.87	5.02	25.20	0.11
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,754,020	10.57	(6.93)	(4.78)	22.85	0.62
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	2,278,514	9.55	(7.95)	(5.80)	33.64	0.24
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	714,645	12.03	(5.47)	(3.32)	11.02	0.12
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	7,279,978	13.19	(4.31)	(2.16)	4.67	1.47
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	1,265,269	16.60	(0.90)	1.25	1.56	0.41
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,039,593	16.89	(0.61)	1.54	2.37	0.34
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	600,765	21.64	4.14	6.29	39.56	0.33
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	398,458	18.38	0.88	3.03	9.18	0.16
Valley	Wastewater Collection System	2019.96	13,950,000	2%	392,972	35.50	18.00	20.15	406.02	0.58
Delaware County Regional Wa	Wastewater Collection and Treatment	2020.00	276,500,000	32%	25,883,282	10.68	(6.82)	(4.67)	21.81	3.43
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	845,182	16.27	(1.23)	0.92	0.85	0.26
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	2,839,988	18.66	1.16	3.31	10.96	1.15
			860,058,378	100%	61,712,444					

Simple Mean	17.50
Standard Deviation	5.70
Simple Median	17.41
Simple Mode	Not Applicable
Weighted Mean	15.35
Standard Deviation	5.08
Wtd Median	18.13
Wtd Mode	Not Applicable

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-5)	Purchase Price to Cash Flow	Accummulated Cashflow (EBITDA Period 1-5)
Steelton	Water Distribution and Treatment	2018.871683	21750000	0.025288981	2278514	9.55	9.55
Cheltenham	Wastewater Collection	2018.419406	50250000	0.058426267	4754020	10.57	20.12
Delaware County Regional W.	Wastewater Collection and Treatme	2020.001599	276500000	0.321489805	25883282	10.68	30.8
Sadsbury	Wastewater Collection	2017.00274	8600000	0.009999321	714645	12.03	42.83
Exeter	Wastewater Collection and Treatme	2018.410046	96000000	0.11162033	7279978	13.19	56.02
Upper Pottsgrove	Wastewater Collection	2020.326712	13750000	0.015987287	845182	16.27	72.29
East Norriton	Wastewater Collection	2018.829452	21000000	0.024416947	1265269	16.6	88.89
Kane	Wastewater Collection and Treatme	2018.748858	17560000	0.020417269	1039593	16.89	105.78
New Garden Twp. SA	Wastewater Collection and Paid for	2016.586073	29500000	0.034299097	1717347	17.18	122.96
East Bradford Township	Wastewater Collection and paid for	2017.944064	5000000	0.005813559	283367	17.64	140.6
Limerick Township	Wastewater Collection and Treatme	2016.877169	64373378	0.074847684	3542124.2	18.17	158.77
Valley	Water Treatment and Distribution S	2019.963742	7325000	0.008516864	398458	18.38	177.15
Lower Makefield	Wastewater Collection and Purchas	2020.713242	53000000	0.061623724	2839988	18.66	195.81
Mahoning	Water Distribution System	2018.304795	4734800	0.005505208	233922	20.24	216.05
Mahoning	Wastewater Collection	2018.304795	4765200	0.005540553	233922	20.37	236.42
City of McKeesport	Wastewater Collection and Treatme	2016.669406	159000000	0.184871172	7409096	21.46	257.88
Royersford	Wastewater Collection and Treatme	2019.944064	13000000	0.015115253	600765	21.64	279.52
Valley	Wastewater Collection System	2019.964252	13950000	0.016219829	392972	35.5	315.02
			860058378	1	61712444.2		

Middle Cash Flow		157.51
Bottom value of the range containing the Middle Value	17.64	140.6
Top value of the range containing the Middle Value	18.17	158.77
Range containing the middle value	.53	18.17
Range from bottom value to middle value	0.49	16.91
Median Value	18.13	

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Market Sales Analysis - PP/Cash Flow (EBITDA Periods 1-13)

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-13)	Purchase Price to Cash Flow	Variance to Simple Mean	Variance to Wtd Mean	Variance Squared	Wtd Mean Cash Flow
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	11,958,224	13.30	1.67	1.81	3.28	2.46
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatmen	2016.59	29,500,000	3%	2,625,115	11.24	(0.39)	(0.25)	0.06	0.39
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	5,212,045	12.35	0.72	0.86	0.74	0.92
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	632,892	7.90	(3.73)	(3.59)	12.89	0.05
Mahoning	Water Distribution System	2018.30	4,734,800	1%	348,409	13.59	1.96	2.10	4.41	0.07
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	348,409	13.68	2.05	2.19	4.80	0.08
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,326,210	11.62	(0.01)	0.13	0.02	0.68
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	3,893,757	5.59	(6.04)	(5.90)	34.81	0.14
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	895,128	9.61	(2.02)	(1.88)	3.53	0.10
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	8,011,315	11.98	0.35	0.49	0.24	1.34
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	2,011,465	10.44	(1.19)	(1.05)	1.10	0.25
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,446,948	12.14	0.51	0.65	0.42	0.25
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	1,209,765	10.75	(0.88)	(0.74)	0.55	0.16
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	817,993	8.95	(2.68)	(2.54)	6.45	0.08
Valley	Wastewater Collection System	2019.96	13,950,000	2%	844,046	16.53	4.90	5.04	25.40	0.27
Delaware County Regional Water Q	Wastewater Collection and Treatment	2020.00	276,500,000	32%	28,960,162	9.55	(2.08)	(1.94)	3.76	3.07
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	932,042	14.75	3.12	3.26	10.63	0.24
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	3,432,340	15.44	3.81	3.95	15.60	0.95
			860,058,378	100%	77,906,265					
Simple Mean						11.63				
Standard Deviation						2.67				
SimpleMedian						11.80				
Simple Mode						Not Applicable				
Weighted Mean						11.48				
Standard Deviation						2.14				
Wtd Median						12.07				
Wtd Mode						Not Applicable				

Property Acquired	Type of System and Attributes	Asset Purchase Agreement (APA) Date	Purchase Price (PP)	Proportion of Purchase Price to Total	Cash Flows (EBITDA Periods 1-13)	Purchase Price to Cash Flow	Accumumulated Cashflow (EBITDA Period 1 13)
Steelton	Water Distribution and Treatment	2018.87	21,750,000	3%	3,893,757	5.59	5.59
East Bradford Township	Wastewater Collection and paid for treatment Capacity	2017.94	5,000,000	1%	632,892	7.90	13.49
Valley	Water Treatment and Distribution System	2019.96	7,325,000	1%	817,993	8.95	22.44
Delaware County Regional Water Q	Wastewater Collection and Treatment	2020.00	276,500,000	32%	28,960,162	9.55	31.99
Sadsbury	Wastewater Collection	2017.00	8,600,000	1%	895,128	9.61	41.60
East Norriton	Wastewater Collection	2018.83	21,000,000	2%	2,011,465	10.44	52.04
Royersford	Wastewater Collection and Treatment	2019.94	13,000,000	2%	1,209,765	10.75	62.79
New Garden Twp. SA	Wastewater Collection and Paid for and Owned Treatment	2016.59	29,500,000	3%	2,625,115	11.24	74.03
Cheltenham	Wastewater Collection	2018.42	50,250,000	6%	4,326,210	11.62	85.65
Exeter	Wastewater Collection and Treatment	2018.41	96,000,000	11%	8,011,315	11.98	97.63
Kane	Wastewater Collection and Treatment	2018.75	17,560,000	2%	1,446,948	12.14	109.77
Limerick Township	Wastewater Collection and Treatment System	2016.88	64,373,378	7%	5,212,045	12.35	122.12
City of McKeesport	Wastewater Collection and Treatment	2016.67	159,000,000	18%	11,958,224	13.30	135.42
Mahoning	Water Distribution System	2018.30	4,734,800	1%	348,409	13.59	149.01
Mahoning	Wastewater Collection	2018.30	4,765,200	1%	348,409	13.68	162.69
Upper Pottsgrove	Wastewater Collection	2020.33	13,750,000	2%	932,042	14.75	177.44
Lower Makefield	Wastewater Collection and Purchased Treatment Capacity	2020.71	53,000,000	6%	3,432,340	15.44	192.88
Valley	Wastewater Collection System	2019.96	13,950,000	2%	844,046	16.53	209.41
			860,058,378	100%	77,906,265		
Middle Cash Flow							104.71
Bottomvalue of the range containing the Middle Value						11.98	97.63
Top value of the range containing the Middle Value						12.14	109.77
Range containing the middle value						0.16	12.14
Range from bottom value to middle value						0.09	7.08
Median Value						12.07	

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
As of April 6, 2021

Comparable Sales Approach

Market Sales Data

RowID	Approximate Date	Buyer	Seller	County	Type of Facility	Initial Purchase Price	Final Purchase Price[1]	Number of Total Customers	Relationship to the passage of Section 1329
1	9/1/2016	PA American Water	City of McKeesport	Allegheny	Wastewater Collection and Treatment	156,000,000	159,000,000	21,953	Post
2	8/1/2016	Aqua PA	New Garden Twp. SA	Chester	Wastewater Collection and Paid for and Owned Treatment	29,500,000	29,500,000	2,106	Post
3	11/16/2016	Aqua PA	Limerick Township	Montgomery	Wastewater Collection and Treatment System	75,100,000	64,373,378	5,434	Post
4	12/10/2017	Aqua PA	East Bradford Township	Chester	Wastewater Collection and paid for treatment	5,000,000	5,000,000	1,248	Post
5	4/20/2018	SUEZ	Mahoning	Carbon	Water Distribution System	4,734,800	4,734,800	1,186	Post
6	4/20/2018	SUEZ	Mahoning	Carbon	Wastewater Collection	4,765,200	4,765,200	1,451	Post
7	6/1/2018	Aqua PA	Cheltenham	Montgomery	Wastewater Collection	50,250,000	50,250,000	10,500	Post
8	11/14/2018	PA American Water	Steelton	Dauphin	Water Distribution and Treatment	22,500,000	21,750,000	2,325	Post
9	1/1/2017	PA American Water	Sadsbury	Chester	Wastewater Collection	9,250,000	8,600,000	998	Post
10	5/28/2018	PA American Water	Exeter	Berks	Wastewater Collection and Treatment	96,000,000	93,500,000	9,000	Post
11	10/29/2018	Aqua PA	East Norriton	Montgomery	Wastewater Collection	21,000,000	21,000,000	4,950	Post
12	9/30/2018	PA American	Kane	McKean	Wastewater Collection and Treatment	17,560,000	17,560,000	2,006	Post
13	12/10/2019	PA American	Royersford	Montgomery	Wastewater Collection and Treatment	13,000,000	13,000,000	1,596	Post
14	12/17/2019	PA American	Valley	Chester	Water Treatment and Distribution System	7,325,000	7,325,000	1,459	Post
15	12/17/2019	PA American	Valley	Chester	Wastewater Collection System	13,950,000	13,950,000	1,644	Post
16	12/31/2019	Aqua PA	Delaware County Regional Wa	Delaware	Wastewater Collection and Treatment	276,500,000	276,500,000	16,473	Post
17	4/28/2020	PA American Water	Upper Pottsgrove	Montgomery	Wastewater Collection	13,750,000	13,750,000	1,428	Post
18	9/17/2020	Aqua PA	Lower Makefeld	Bucks	Wastewater Collection and Purchased Treatment Capacity	53,000,000	53,000,000	11,151	Post

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

Comparable Sales Approach

Financial Basis[1]

	Industry Averages	American & Aqua Averages	American States Water	American Water	Aqua America	California Water	Consol. Water Co.	Middlesex Water	SJW Corp	York	
Price per Share			87.33	123.05	47.08	51.52	16.46	63.56	71.79	46.38	
Book value per share			16.1	34.4	18	15.85	10.95	15.7	31.2	10.4	
Market to Book Equity Ratio			5.42	3.58	2.62	3.25	1.5	4.05	2.3	4.46	
Minimum	1.5	2.62									
Mean	3.40	3.1		3.58	2.62						
Standard Deviation	1.18	0.480									
Weighted Market to Debt Ratio	3.41		20,013.22	112,367.28	34,710.24	11,207.07	371.03	5,481.74	5,874.18	3,135.10	193,159.86
Median	3.415	3.1									
Maximum	5.42	3.58									
Debt (Total) $s millions			475.3	9,143.0	3,086.4	967.9	-	294.0	511.1	100.7	
Outstanding Shares (millions)			36.84	180.78	215.84	48.15	15.03	16.67	28.46	12.98	
Debt per share			12.9	50.58	14.3	20.1	0	17.64	17.96	7.76	
Equity (Total) $s millions			3,217.18	22,244.51	10,161.78	2,480.43	247.35	1,059.52	2,042.89	602.24	
Total Capital (Debt + Equity)			3,692.48	31,387.51	13,248.18	3,448.33	247.35	1,353.52	2,553.99	702.94	56,634.30
			0.07	0.55	0.23	0.06	-	0.02	0.05	0.01	0.99
Market Value per Share (Equity+Debt)			100.23	173.63	61.38	71.62	16.46	81.2	89.75	54.14	
Book Value per Share (Equity+Debt)			29	84.98	32.3	35.95	10.95	33.34	49.16	18.16	
Market to Book (Total Capital) Ratio			3.46	2.04	1.9	1.99	1.5	2.44	1.83	2.98	
Minimum	1.5	1.9									
Mean	2.27	1.97		2.04	1.9						
Standard Deviation	0.61	0.070									
Weighted Market to Book (Debt&Equity) Ratio	2.11		12,775.97	64,030.52	25,171.55	6,862.18	371.03	3,302.58	4,673.80	2,094.75	119,282.38
Variance to Wtd Mean	0.1392		1.35	(0.07)	(0.21)	(0.12)	(0.61)	0.33	(0.28)	0.87	
Median	2.015	1.97									
Maximum	3.46	2.04									

1. Value Line Investment Survey January 10, 2020
2. Value Line dropped Connecticut Water in its January 10, 2020 publication

Water and Wastewater General Information

Appraisal Work Papers

Cost Indices

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Water and Wastewater General Information

Appraisal Work Papers

Cost Indices

Handy Whitman Index of Public System Construction Costs
Water Industry – Northeastern United States

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Bulletin No. 193

1912 to January 1, 2021

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

Trends of Construction Costs

COMPILED & PUBLISHED BY

Whitman, Requardt & Associates, LLP

Engineers, Architects and Planners

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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.

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 rate 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. 193

During the twelve-month period ending January 1, 2021, the average index of all geographical regions for Total Gas Plant increased 0.9%, and the comparable index for Electric Plant-All Steam Generation increased 4.5%.

May 2021
Whitman, Requardt and Associates, LLP

Cost Trends Of

Building Construction

COST TREND TABLES
1912 to January 1, 2021

B-1

COST TRENDS OF BUILDING CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION, MATERIAL, AND LABOR	COST INDEX NUMBERS															
		1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	8	8	8	8	12	18	19	19	20	15	14	17	17	17	17	16
3	Brick Building Construction	8	8	8	9	11	15	17	19	21	17	16	18	19	18	18	18
4	Structural Steel Erected	9	9	9	8	16	29	26	22	22	16	15	19	19	17	17	16
5	Reinf. Concrete (Ready-Mix)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7																	
8	**Building Material**																
9	Ready-Mix Concrete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Lumber for Reinf. Concrete	7	7	7	7	9	13	19	19	20	14	13	15	19	19	15	15
11	Steel Bars for Reinf. Concrete	15	15	15	17	34	47	37	35	37	24	22	28	29	27	25	24
12	Common Brick	10	10	10	14	16	19	20	27	34	31	30	33	30	28	28	28
13	Concrete Block	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14																	
15	**Labor**																
16	Building Trades Labor	6	6	6	6	6	7	8	10	11	11	11	12	13	14	15	15
17	Heavy Constr. Trades Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Labor for Reinf. Concrete	5	5	5	5	5	6	8	10	11	9	9	10	11	11	11	11
19	Common Labor	4	4	4	4	5	5	8	10	11	9	8	9	9	9	9	9
20	Electricians	5	5	5	6	6	6	8	9	10	11	11	11	12	13	14	14
21	Pipefitters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Plumbers	6	6	6	6	6	7	8	9	9	11	11	12	12	13	14	14
23																	

Line	CONSTRUCTION, MATERIAL, AND LABOR	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	16	16	15	14	12	13	15	15	15	16	16	16	17	18	20	20
3	Brick Building Construction	18	17	17	16	14	14	16	16	16	17	17	17	17	19	20	20
4	Structural Steel Erected	16	16	15	13	11	12	14	15	15	17	15	15	15	19	20	20
5	Reinf. Concrete (Ready-Mix)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Reinf. Concrete (Plant-Mix)	16	16	15	14	12	13	15	15	15	17	17	17	17	18	19	19
7																	
8	**Building Material**																
9	Ready-Mix Concrete	-	-	-	-	-	-	32	32	32	33	33	32	31	31	32	33
10	Lumber for Reinf. Concrete	15	15	14	12	10	12	16	13	13	15	15	15	16	19	21	22
11	Steel Bars for Reinf. Concrete	24	25	22	20	20	21	24	23	25	31	29	28	27	28	28	28
12	Common Brick	25	23	20	20	19	19	22	20	20	20	20	20	20	21	22	22
13	Concrete Block	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14																	
15	**Labor**																
16	Building Trades Labor	15	15	15	15	14	12	13	13	13	15	15	15	16	17	18	18
17	Heavy Constr. Trades Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Labor for Reinf. Concrete	11	11	10	10	9	9	11	11	11	12	13	13	14	14	14	15
19	Common Labor	9	9	9	9	8	6	8	9	9	10	10	11	11	12	12	13
20	Electricians	14	15	15	16	16	14	14	14	15	16	16	17	17	18	19	19
21	Pipefitters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Plumbers	14	15	15	15	13	13	14	14	14	15	16	16	17	17	18	18
23																	

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COST TRENDS OF BUILDING CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION, MATERIAL, AND LABOR	COST INDEX NUMBERS															
		1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	20	20	24	28	32	34	35	37	38	40	42	44	48	52	53	55
3	Brick Building Construction	21	21	24	28	32	34	35	37	38	39	41	42	46	49	50	52
4	Structural Steel Erected	20	20	24	30	37	39	41	43	43	47	48	50	59	66	67	67
5	Reinf. Concrete (Ready-Mix)	-	-	-	-	-	-	-	-	35	37	39	41	43	46	48	50
7																	
8	**Building Material**																
9	Ready-Mix Concrete	33	33	35	39	44	45	46	47	49	50	54	57	60	63	66	66
10	Lumber for Reinf. Concrete	23	23	29	33	38	34	37	37	38	36	39	42	44	45	44	47
11	Steel Bars for Reinf. Concrete	28	28	30	34	37	43	45	47	48	51	53	56	61	68	70	72
12	Common Brick	23	27	31	33	38	42	43	47	47	48	50	51	52	53	54	54
13	Concrete Block	-	-	-	-	-	56	58	62	63	63	62	67	69	70	69	73
14																	
15	**Labor**																
16	Building Trades Labor	18	19	21	23	26	27	28	31	31	33	34	36	37	39	41	43
17	Heavy Constr. Trades Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Labor for Reinf. Concrete	15	16	18	22	24	25	26	27	29	30	32	33	35	37	39	41
19	Common Labor	13	14	17	19	21	23	24	25	27	28	30	31	33	35	37	40
20	Electricians	19	19	20	23	25	27	28	30	32	33	34	35	37	38	41	42
21	Pipefitters	-	-	-	-	-	26	27	28	29	31	32	33	35	35	39	41
22	Plumbers	18	18	19	22	25	27	28	29	30	32	34	35	37	38	40	41
23																	

Line	CONSTRUCTION, MATERIAL, AND LABOR	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	55	54	55	55	57	58	59	62	65	70	75	84	91	100	121	134
3	Brick Building Construction	53	52	53	54	56	57	59	61	64	68	74	84	91	100	118	127
4	Structural Steel Erected	66	62	62	62	63	63	65	66	69	74	77	83	89	100	140	161
5	Reinf. Concrete (Ready-Mix)	51	52	53	54	55	57	59	61	64	69	77	88	94	100	111	119
6	Reinf. Concrete (Plant-Mix)	49	48	50	51	52	53	56	58	61	66	73	83	91	100	108	115
7																	
8	**Building Material**																
9	Ready-Mix Concrete	66	66	66	65	64	64	65	65	68	73	82	91	94	100	112	123
10	Lumber for Reinf. Concrete	47	39	41	40	39	38	41	42	46	53	53	63	75	100	93	91
11	Steel Bars for Reinf. Concrete	72	72	72	72	74	81	82	81	81	81	84	91	91	100	157	156
12	Common Brick	56	56	56	57	58	58	60	62	65	65	68	78	84	100	123	126
13	Concrete Block	68	70	70	70	70	67	70	72	75	77	81	90	98	100	109	113
14																	
15	**Labor**																
16	Building Trades Labor	45	46	48	50	52	54	56	59	62	68	76	87	96	100	108	115
17	Heavy Constr. Trades Labor	-	45	47	48	50	53	56	58	61	67	76	86	96	100	107	116
18	Labor for Reinf. Concrete	43	45	47	49	51	53	56	58	62	67	77	88	96	100	108	116
19	Common Labor	42	44	45	47	49	52	55	58	61	66	75	88	97	100	109	117
20	Electricians	43	45	48	49	51	53	55	57	60	64	72	82	91	100	108	117
21	Pipefitters	41	44	45	45	48	50	52	55	57	62	70	85	97	100	107	114
22	Plumbers	43	44	46	48	49	51	53	56	58	64	71	86	96	100	107	114
23																	

B-1

COST TRENDS OF BUILDING CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION, MATERIAL, AND LABOR	COST INDEX NUMBERS															
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	134	139	150	167	184	190	189	196	211	222	229	234	246	258	262	257
3	Brick Building Construction	130	136	148	164	183	192	197	206	217	225	233	239	252	265	271	272
4	Structural Steel Erected	153	154	170	193	225	227	202	202	225	240	249	255	272	286	286	261
5	Reinf. Concrete (Ready-Mix)	124	131	140	154	166	176	191	201	210	220	225	229	238	244	251	260
7																	
8	**Building Material**																
9	Ready-Mix Concrete	126	133	143	163	185	207	226	227	235	248	245	252	254	244	250	255
10	Lumber for Reinf. Concrete	106	118	130	148	139	138	135	143	144	140	140	146	143	148	147	145
11	Steel Bars for Reinf. Concrete	145	147	166	206	215	216	203	190	198	202	205	205	227	232	222	199
12	Common Brick	130	136	159	190	232	247	255	257	256	246	258	270	292	320	320	316
13	Concrete Block	116	120	139	185	210	228	260	260	262	278	285	287	285	301	288	288
14																	
15	**Labor**																
16	Building Trades Labor	122	129	135	143	152	164	184	199	212	221	229	234	245	256	268	285
17	Heavy Constr. Trades Labor	123	131	137	146	155	165	184	199	210	220	229	233	244	255	264	279
18	Labor for Reinf. Concrete	122	130	137	147	157	166	184	198	210	220	227	232	242	253	262	277
19	Common Labor	124	133	141	152	163	172	190	204	214	223	231	234	243	254	265	280
20	Electricians	124	129	135	143	150	164	186	207	224	234	239	244	261	271	280	298
21	Pipefitters	122	131	135	143	154	170	192	207	219	228	236	242	248	263	276	290
22	Plumbers	122	131	136	141	152	168	191	205	217	226	235	241	242	257	279	294
23																	

Line	CONSTRUCTION, MATERIAL, AND LABOR	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 Jan. 1	2005 Jul. 1
1	**Building Construction**															
2	Reinf. Conc. Bldg. Construction	262	279	298	305	311	322	324	330	342	**354**	363	371	403	415	422
3	Brick Building Construction	278	290	304	310	315	328	337	345	359	**372**	383	391	414	425	431
4	Structural Steel Erected	260	278	305	317	325	334	336	344	360	**372**	375	385	433	443	452
5	Reinf. Concrete (Ready-Mix)	268	279	291	296	304	312	320	327	336	**350**	364	372	389	402	409
6	Reinf. Concrete (Plant-Mix)	247	265	281	279	286	298	296	299	304	**316**	324	328	351	364	373
7																
8	**Building Material**															
9	Ready-Mix Concrete	257	262	270	281	295	286	301	307	315	**332**	350	356	344	351	371
10	Lumber for Reinf. Concrete	150	193	227	196	206	218	186	182	168	**179**	164	153	182	182	215
11	Steel Bars for Reinf. Concrete	194	212	234	236	236	250	246	229	225	**224**	221	243	296	348	360
12	Common Brick	315	310	313	315	311	335	369	384	412	**426**	426	427	429	429	439
13	Concrete Block	288	263	262	258	258	285	306	332	354	**365**	381	384	394	406	406
14																
15	**Labor**															
16	Building Trades Labor	296	307	318	326	331	344	353	362	376	**392**	412	424	442	458	458
17	Heavy Constr. Trades Labor	291	300	311	319	325	337	348	358	372	**386**	402	411	430	446	446
18	Labor for Reinf. Concrete	289	297	308	314	320	333	343	354	366	**382**	400	407	426	439	439
19	Common Labor	293	303	315	315	327	338	349	359	376	**389**	400	407	421	428	428
20	Electricians	309	324	336	343	353	365	377	390	401	**416**	441	454	475	497	497
21	Pipefitters	305	317	323	335	342	352	361	374	388	**409**	423	435	470	488	488
22	Plumbers	305	320	330	339	348	355	363	368	385	**405**	425	438	455	469	469
23																

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COST TRENDS OF BUILDING CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION, MATERIAL, AND LABOR	COST INDEX NUMBERS															
		2006		2007		2008		2009		2010		2011		2012		2013	
		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	Jan. 1	Jul. 1
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	431	436	446	472	493	501	505	486	497	498	515	515	524	527	537	534
3	Brick Building Construction	441	443	457	472	492	497	506	494	506	507	521	518	530	532	542	539
4	Structural Steel Erected	462	471	480	534	550	563	555	509	511	511	531	532	538	542	558	553
5	Reinf. Concrete (Ready-Mix)	414	418	434	446	469	476	484	484	500	506	516	517	525	526	527	527
7																	
8	**Building Material**																
9	Ready-Mix Concrete	371	379	382	425	425	425	429	430	430	437	431	439	441	441	436	436
10	Lumber for Reinf. Concrete	195	195	150	164	157	162	162	159	158	149	147	152	150	165	170	168
11	Steel Bars for Reinf. Concrete	324	361	380	420	398	490	334	326	358	416	417	406	393	391	365	356
12	Common Brick	439	439	457	457	460	460	460	453	453	453	453	434	448	451	458	452
13	Concrete Block	428	450	460	386	390	390	390	390	443	432	430	432	428	428	445	445
14																	
15	**Labor**																
16	Building Trades Labor	478	478	499	499	527	527	550	550	572	572	590	590	607	607	619	619
17	Heavy Constr. Trades Labor	459	459	483	483	517	517	542	542	564	564	584	584	596	596	605	605
18	Labor for Reinf. Concrete	452	452	476	476	512	512	541	541	562	562	579	579	591	591	598	598
19	Common Labor	436	436	475	475	510	510	550	550	572	572	590	590	604	604	604	604
20	Electricians	512	512	543	543	564	564	582	582	615	615	632	632	665	665	674	674
21	Pipefitters	514	514	526	526	566	566	590	590	607	607	642	642	658	658	668	668
22	Plumbers	502	502	520	520	545	545	580	580	597	597	610	610	623	623	634	634
23																	

Line	CONSTRUCTION, MATERIAL, AND LABOR	2014		2015		2016		2017		2018		2019		2020		2021	
		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	Jan. 1	Jul. 1
1	**Building Construction**																
2	Reinf. Conc. Bldg. Construction	546	549	557	549	552	558	569	576	589	611	611	605	617	613	653	
3	Brick Building Construction	550	552	585	580	586	589	604	608	633	647	647	643	664	662	692	
4	Structural Steel Erected	561	567	568	555	549	556	561	569	579	617	618	604	609	594	652	
5	Reinf. Concrete (Ready-Mix)	541	543	556	554	564	567	581	585	602	609	611	608	625	629	650	
6	Reinf. Concrete (Plant-Mix)	482	482	497	490	497	505	519	527	541	561	553	551	565	568	599	
7																	
8	**Building Material**																
9	Ready-Mix Concrete	441	452	455	461	471	471	481	485	488	488	489	488	492	514	521	
10	Lumber for Reinf. Concrete	174	170	188	182	178	204	222	240	244	309	255	249	243	259	330	
11	Steel Bars for Reinf. Concrete	363	373	368	326	288	307	316	349	342	393	413	381	333	325	342	
12	Common Brick	449	449	617	617	618	618	636	637	725	725	709	709	757	757	765	
13	Concrete Block	444	499	505	485	483	429	427	411	411	443	429	461	462	461	463	
14																	
15	**Labor**																
16	Building Trades Labor	636	636	646	646	660	660	678	678	696	696	707	707	732	732	755	
17	Heavy Constr. Trades Labor	620	620	640	640	659	659	673	673	696	696	705	705	732	732	754	
18	Labor for Reinf. Concrete	616	616	633	633	651	651	666	666	690	690	693	693	723	723	745	
19	Common Labor	620	620	644	644	661	661	674	674	705	705	712	712	750	750	777	
20	Electricians	691	691	702	702	724	724	731	731	753	753	775	775	787	787	815	
21	Pipefitters	694	694	704	704	717	717	738	738	755	755	768	768	780	780	796	
22	Plumbers	655	655	668	668	674	674	696	696	716	716	734	734	751	751	776	
23																	

M

UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1	Boilers	6	6	6	7	8	13	17	15	16	14	12	14	15	15
2	Coal & Ash Handling Equipment	12	12	12	12	19	31	29	20	28	24	21	23	23	21
3	Pumps	9	9	9	12	14	16	18	18	18	17	16	16	16	17
4	Steam Pipe	17	17	17	12	18	39	44	35	37	35	34	36	37	37
5	Cranes	6	6	6	7	7	7	7	8	8	9	9	9	9	10
6	Regulators	32	32	32	32	32	39	47	45	49	50	49	50	53	52
7	Switchboards	20	20	20	20	21	23	26	35	44	49	43	40	43	43
8	Power Transformers	23	23	23	23	23	32	41	41	49	48	42	43	46	46
9	Oil Switches	27	27	27	27	27	30	38	45	49	53	50	50	51	51
10	Motors	21	21	21	21	21	28	31	37	42	43	34	29	29	29
11	Line Transformers	48	48	48	48	48	51	69	72	77	79	69	67	69	68
12	Meters-Electrric	37	37	37	37	37	41	46	51	53	57	53	50	50	48
13	Treated Pine Poles	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Standard Cross Arms	7	7	7	7	7	9	10	12	12	11	12	12	12	13
15	Standard Galv. Steel Guy Wire	12	12	12	14	15	19	22	23	22	22	21	21	20	20
16	Fibre Conduit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Plastic Conduit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Mercury Luminaires w/Standard	-	-	-	-	-	-	-	-	-	-	-	-	27	26
19	Power Wire & Control Cable	23	23	23	30	36	42	48	51	49	37	29	33	31	34
20	Overhead Conductor-Transmission	28	26	23	25	45	49	54	53	51	31	28	32	31	32
21	Underground Conductor-Transmission	15	13	12	12	19	22	25	27	26	21	21	26	23	23
22	Overhead Conductor-Distribution	25	23	20	23	40	43	48	47	45	28	25	28	28	29
23	Underground Conductor-Distribution	16	15	14	14	22	25	28	30	29	22	22	28	25	25
24	Service Cable	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Condensers & Tubes	7	7	7	7	11	13	20	21	21	20	17	17	18	18
26	Turbo-Generators	9	9	9	9	13	13	17	18	21	23	20	19	19	19
27															
28	Gas Compressors	18	18	18	18	18	19	25	25	27	26	25	25	25	25
29	Gas Transmission Line Pipe	23	24	23	24	34	44	44	45	44	43	40	41	43	43
30	Steel Distribution Pipe	15	16	16	17	24	36	40	36	34	32	28	30	31	31
31	Plastic Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Meters-Gas	17	18	18	18	19	23	33	33	32	33	30	30	28	27
33	House Regulators	24	25	25	25	26	31	47	46	45	45	41	41	39	37
34															
35	Cast Iron Pipe	16	17	16	17	23	40	44	48	53	44	39	45	47	40
36	Cast Iron Fittings	10	10	10	13	13	24	27	25	34	29	25	25	25	27
37	Ductile Iron Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	Chemical Feeders-Small	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Chemical Feeders-Large	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Gate Valves	15	15	15	17	17	17	24	24	30	28	25	29	29	27
41	Meter Yokes	24	24	24	24	24	24	29	29	31	31	29	29	29	29
42	Corporation Stops	27	27	27	27	27	27	25	25	25	25	25	25	24	24
43	Curb Stops	20	20	20	20	20	20	22	22	22	22	22	22	21	21
44	Hydrants	23	23	23	23	23	23	23	24	27	27	23	26	27	26
45	Meters-Water	23	23	23	23	26	29	35	37	37	37	37	37	37	37
46															
47															
48															
49															
50	Construction Equipment	-	-	-	11	15	19	26	28	30	22	19	23	21	22
51															
52															
53															
54															
55															
56															

M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
1	Boilers	15	15	14	14	14	14	12	12	15	15	16	18	19	20
2	Coal & Ash Handling Equipment	21	20	20	20	19	17	16	17	20	20	20	21	20	20
3	Pumps	19	19	19	20	20	19	18	18	19	19	19	21	22	22
4	Steam Pipe	37	37	37	36	36	36	35	32	31	31	32	36	35	35
5	Cranes	10	10	11	11	11	11	10	10	10	10	10	10	10	11
6	Regulators	42	41	40	41	42	43	42	43	48	48	48	52	53	53
7	Switchboards	44	44	45	48	48	47	43	43	48	48	48	52	53	53
8	Power Transformers	46	43	41	42	40	40	39	40	46	47	47	50	52	52
9	Oil Switches	51	49	49	51	53	52	51	55	59	59	59	63	65	65
10	Motors	29	28	28	29	29	29	29	30	33	32	32	32	32	32
11	Line Transformers	63	59	58	62	61	59	57	59	61	62	62	66	67	67
12	Meters-Electrric	48	48	48	48	48	48	48	50	54	55	55	55	55	55
13	Treated Pine Poles	28	27	26	25	24	23	21	22	23	24	23	24	23	23
14	Standard Cross Arms	10	9	9	9	9	8	8	9	10	11	11	12	12	12
15	Standard Galv. Steel Guy Wire	18	17	16	16	15	14	14	15	17	17	17	18	19	18
16	Fibre Conduit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Plastic Conduit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Mercury Luminaires w/Standard	26	23	26	27	28	29	29	29	30	30	30	30	30	30
19	Power Wire & Control Cable	33	30	27	29	26	21	19	23	26	27	29	35	29	26
20	Overhead Conductor-Transmission	29	27	32	38	26	22	19	23	28	27	29	32	27	27
21	Underground Conductor-Transmission	22	21	23	27	20	19	19	21	23	23	25	27	24	24
22	Overhead Conductor-Distribution	26	24	28	34	23	19	17	20	25	24	26	28	24	24
23	Underground Conductor-Distribution	24	22	25	29	22	21	20	22	25	25	27	29	26	26
24	Service Cable	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Condensers & Tubes	18	16	15	19	20	19	18	19	21	24	24	27	27	27
26	Turbo-Generators	19	19	20	21	22	22	21	22	25	25	26	29	30	30
27															
28	Gas Compressors	24	23	24	24	24	24	24	24	24	24	23	23	23	23
29	Gas Transmission Line Pipe	43	43	43	43	43	43	42	35	35	35	34	35	34	34
30	Steel Distribution Pipe	31	31	31	31	30	29	29	26	29	29	26	28	26	25
31	Plastic Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Meters-Gas	27	27	27	27	27	26	25	25	25	25	25	26	26	26
33	House Regulators	37	38	38	38	37	36	34	34	34	34	34	35	37	40
34															
35	Cast Iron Pipe	40	34	29	30	30	28	25	30	34	35	36	39	39	38
36	Cast Iron Fittings	27	25	25	25	24	21	19	20	22	23	23	23	24	24
37	Ductile Iron Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	Chemical Feeders-Small	18	19	22	22	20	15	17	17	17	17	17	17	17	17
39	Chemical Feeders-Large	-	-	-	-	-	-	-	-	-	12	12	13	13	13
40	Gate Valves	26	26	28	28	28	24	23	23	22	22	23	25	26	26
41	Meter Yokes	29	29	29	29	29	29	28	28	28	28	28	28	29	29
42	Corporation Stops	24	24	24	24	24	24	24	22	21	21	21	21	21	21
43	Curb Stops	21	21	21	21	21	21	21	21	21	21	21	21	21	21
44	Hydrants	24	24	25	25	25	23	23	23	20	22	22	24	25	25
45	Meters-Water	37	37	37	37	37	37	37	35	26	26	26	31	32	32
46															
47															
48															
49															
50	Construction Equipment	21	22	21	22	22	20	19	19	20	21	21	23	23	23
51															
52															
53															
54															
55															
56															

M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
1	Boilers	20	21	21	21	21	21	22	25	31	36	37	41	41	43
2	Coal & Ash Handling Equipment	20	23	25	25	24	24	29	35	42	44	47	50	51	55
3	Pumps	22	23	24	24	24	24	26	32	35	37	40	47	47	48
4	Steam Pipe	35	35	35	35	35	35	37	42	45	50	52	53	53	55
5	Cranes	11	11	11	11	12	17	20	23	26	29	31	33	35	38
6	Regulators	53	53	53	53	52	51	57	63	65	69	70	74	74	81
7	Switchboards	53	53	51	50	45	44	50	58	59	59	62	72	72	77
8	Power Transformers	52	52	51	49	46	45	50	60	62	67	70	78	78	83
9	Oil Switches	65	65	65	65	59	58	67	78	79	79	89	102	102	110
10	Motors	31	32	33	33	31	32	37	45	46	49	53	63	63	66
11	Line Transformers	67	69	68	64	64	64	72	90	93	96	100	113	113	121
12	Meters-Electrric	55	55	55	55	55	55	61	69	74	80	80	80	78	81
13	Treated Pine Poles	23	24	27	28	33	39	37	41	43	43	42	44	46	49
14	Standard Cross Arms	13	16	17	19	22	23	25	35	37	34	36	41	42	42
15	Standard Galv. Steel Guy Wire	17	17	17	18	18	18	19	29	35	38	40	42	43	51
16	Fibre Conduit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Plastic Conduit	-	-	-	-	-	-	-	-	-	-	-	-	179	170
18	Mercury Luminaires w/Standard	30	30	31	31	31	31	32	40	44	48	47	53	52	51
19	Power Wire & Control Cable	31	39	40	40	40	40	48	56	65	66	66	75	77	74
20	Overhead Conductor-Transmission	29	28	31	32	32	32	40	48	52	48	52	59	63	69
21	Underground Conductor-Transmission	25	29	30	29	28	28	34	41	50	56	56	59	61	59
22	Overhead Conductor-Distribution	26	25	27	28	28	28	35	43	46	43	46	52	56	61
23	Underground Conductor-Distribution	27	31	32	32	31	31	36	44	54	59	59	63	64	64
24	Service Cable	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Condensers & Tubes	27	27	27	27	26	27	30	32	33	36	37	40	40	43
26	Turbo-Generators	30	30	30	30	30	31	36	44	47	49	49	54	54	58
27															
28	Gas Compressors	24	25	27	27	26	28	31	31	35	40	40	41	42	43
29	Gas Transmission Line Pipe	34	34	34	34	34	34	36	41	44	48	50	51	52	54
30	Steel Distribution Pipe	25	25	25	25	25	25	28	33	37	41	43	46	47	52
31	Plastic Pipe	-	-	-	-	-	-	-	-	-	-	-	-	175	175
32	Meters-Gas	26	26	26	26	26	26	33	41	42	45	48	55	55	55
33	House Regulators	48	48	48	48	48	48	53	63	64	68	69	74	74	74
34															
35	Cast Iron Pipe	39	39	40	39	39	40	45	58	69	68	67	73	73	73
36	Cast Iron Fittings	24	26	27	27	27	28	33	42	49	48	48	54	56	59
37	Ductile Iron Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	Chemical Feeders-Small	17	17	17	17	17	18	22	26	31	34	38	40	40	40
39	Chemical Feeders-Large	13	14	15	15	16	19	20	24	29	35	40	42	42	42
40	Gate Valves	26	28	29	29	29	29	34	39	42	45	52	57	57	57
41	Meter Yokes	29	29	30	30	30	31	37	39	40	39	41	48	48	48
42	Corporation Stops	22	22	23	23	23	24	31	36	37	37	37	45	45	45
43	Curb Stops	22	23	23	23	23	25	31	36	38	37	38	45	45	45
44	Hydrants	25	27	27	27	27	27	32	36	39	43	50	55	55	55
45	Meters-Water	33	35	37	37	37	37	40	42	48	52	59	61	61	65
46															
47															
48															
49															
50	Construction Equipment	24	25	28	29	29	29	34	37	39	40	42	45	46	49
51															
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53															
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M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
1	Boilers	45	47	54	61	63	65	65	66	66	66	68	70	71	74
2	Coal & Ash Handling Equipment	56	58	68	76	77	79	77	72	72	72	73	73	74	76
3	Pumps	49	50	55	56	56	62	68	68	69	69	70	70	74	77
4	Steam Pipe	56	57	61	67	69	71	71	71	71	71	73	73	73	74
5	Cranes	40	43	45	47	49	52	54	55	55	55	56	56	58	64
6	Regulators	83	85	98	105	108	108	108	96	96	90	87	84	83	84
7	Switchboards	79	81	96	105	108	106	98	81	78	77	77	78	82	90
8	Power Transformers	85	87	100	103	107	103	95	88	84	76	81	84	87	91
9	Oil Switches	112	110	115	131	136	132	109	75	74	64	70	82	80	88
10	Motors	67	68	79	89	93	96	92	87	86	85	85	87	87	88
11	Line Transformers	123	123	127	135	130	125	122	118	107	100	100	101	101	105
12	Meters-Electric	83	79	82	87	89	92	92	91	90	89	89	88	88	89
13	Treated Pine Poles	51	51	55	59	60	57	57	56	56	56	56	56	58	61
14	Standard Cross Arms	42	42	49	50	47	46	46	44	44	44	44	45	47	46
15	Standard Galv. Steel Guy Wire	54	55	58	62	63	63	63	63	63	63	63	63	63	63
16	Fibre Conduit	-	-	-	-	-	-	82	86	86	86	86	84	76	71
17	Plastic Conduit	170	157	159	159	154	154	154	150	146	146	143	139	141	136
18	Mercury Luminaires w/Standard	59	59	60	66	68	68	68	67	67	66	67	66	72	82
19	Power Wire & Control Cable	71	68	72	65	50	50	40	38	40	40	44	55	67	72
20	Overhead Conductor-Transmission	67	73	80	81	79	72	73	73	74	63	69	73	76	78
21	Underground Conductor-Transmission	60	65	72	65	63	65	66	64	63	63	69	77	77	79
22	Overhead Conductor-Distribution	59	67	72	63	58	63	64	62	62	62	64	71	75	78
23	Underground Conductor-Distribution	64	71	78	69	67	70	71	69	67	68	74	82	83	85
24	Service Cable	-	-	93	89	74	69	68	69	67	62	66	68	71	74
25	Condensers & Tubes	44	45	48	53	56	56	56	56	56	57	61	65	71	75
26	Turbo-Generators	59	61	72	80	84	84	78	72	70	70	70	71	72	73
27															
28	Gas Compressors	44	46	49	54	58	61	61	61	61	64	68	73	74	78
29	Gas Transmission Line Pipe	55	56	59	65	67	69	69	69	69	69	71	71	71	72
30	Steel Distribution Pipe	54	56	60	68	69	71	71	71	71	71	71	71	71	73
31	Plastic Pipe	154	147	146	142	140	139	137	133	132	132	128	123	126	126
32	Meters-Gas	55	56	63	66	71	71	71	73	79	79	79	79	86	88
33	House Regulators	74	74	74	76	80	80	80	81	82	82	82	80	80	80
34															
35	Cast Iron Pipe	79	80	86	91	95	95	95	95	95	95	95	95	95	95
36	Cast Iron Fittings	62	64	67	69	72	74	74	74	73	72	72	72	72	75
37	Ductile Iron Pipe	-	-	-	-	-	-	-	96	96	96	96	96	96	96
38	Chemical Feeders-Small	40	41	45	48	49	54	60	60	63	63	64	69	73	77
39	Chemical Feeders-Large	42	44	54	61	68	68	68	68	71	72	71	70	72	79
40	Gate Valves	55	51	57	59	58	58	58	59	62	63	62	62	68	72
41	Meter Yokes	51	57	64	61	59	59	62	63	65	65	66	70	75	77
42	Corporation Stops	46	54	59	59	59	60	62	62	65	65	66	71	79	81
43	Curb Stops	46	54	59	59	59	60	62	63	65	65	67	71	79	82
44	Hydrants	55	52	58	59	59	59	59	59	59	59	59	59	61	66
45	Meters-Water	67	70	77	78	78	78	78	78	84	87	87	93	101	101
46															
47															
48															
49															
50	Construction Equipment	49	51	55	59	62	64	65	67	67	68	70	71	73	76
51															
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UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
1	Boilers	76	78	83	89	94	100	119	143	159	172	186	203	221	245
2	Coal & Ash Handling Equipment	79	84	88	93	95	100	124	150	154	162	175	192	213	225
3	Pumps	78	80	85	89	93	100	127	154	177	183	195	212	235	259
4	Steam Pipe	78	82	86	92	98	100	112	131	143	155	178	206	223	236
5	Cranes	68	72	78	82	88	100	122	139	147	171	186	215	237	267
6	Regulators	84	87	90	92	97	100	128	150	165	170	174	179	189	206
7	Switchboards	92	93	94	96	97	100	131	196	212	222	234	238	261	295
8	Power Transformers	93	95	97	95	93	100	129	157	162	172	182	193	210	223
9	Oil Switches	96	92	93	93	95	100	123	140	143	174	186	195	203	229
10	Motors	89	94	100	104	100	100	110	155	167	186	186	188	195	210
11	Line Transformers	109	106	105	104	100	100	110	133	136	147	158	166	165	194
12	Meters-Electrric	92	95	98	101	101	100	107	126	135	140	144	148	144	160
13	Treated Pine Poles	62	66	69	73	77	100	150	205	192	190	206	234	265	289
14	Standard Cross Arms	44	50	65	60	58	100	162	157	146	155	161	223	244	252
15	Standard Galv. Steel Guy Wire	63	64	72	86	97	100	133	153	151	162	178	205	214	244
16	Fibre Conduit	72	78	83	82	85	100	119	130	133	149	173	203	218	235
17	Plastic Conduit	116	105	100	98	100	100	118	133	129	144	161	187	199	190
18	Mercury Luminaires w/Standard	74	78	94	101	102	100	125	173	194	211	234	263	288	314
19	Power Wire & Control Cable	81	86	84	74	86	100	115	95	97	95	101	109	135	142
20	Overhead Conductor-Transmission	75	84	97	107	103	100	121	167	204	220	189	201	232	250
21	Underground Conductor-Transmission	76	82	86	83	89	100	149	142	142	154	148	188	238	259
22	Overhead Conductor-Distribution	75	84	97	107	102	100	121	166	203	220	192	210	246	257
23	Underground Conductor-Distribution	76	86	94	92	100	100	135	130	132	140	148	196	231	222
24	Service Cable	71	77	92	98	99	100	105	124	126	131	149	183	221	217
25	Condensers & Tubes	80	84	89	94	99	100	109	128	142	157	171	189	209	229
26	Turbo-Generators	72	75	81	89	96	100	111	131	144	158	170	188	206	230
27															
28	Gas Compressors	84	88	91	91	90	100	120	150	161	172	188	213	237	265
29	Gas Transmission Line Pipe	75	80	83	89	98	100	122	145	172	187	212	225	253	290
30	Steel Distribution Pipe	73	76	82	89	97	100	127	142	155	170	194	213	225	254
31	Plastic Pipe	123	111	98	96	100	100	112	116	120	125	129	142	152	142
32	Meters-Gas	88	89	94	100	100	100	111	128	131	136	139	143	149	158
33	House Regulators	81	83	92	98	100	100	106	125	132	136	144	171	201	210
34															
35	Cast Iron Pipe	95	95	96	100	100	100	153	178	180	183	195	201	217	235
36	Cast Iron Fittings	77	80	87	99	99	100	144	142	148	152	163	173	194	209
37	Ductile Iron Pipe	96	96	97	100	100	100	153	182	186	189	201	207	215	228
38	Chemical Feeders-Small	81	81	86	90	92	100	126	180	209	230	249	257	287	316
39	Chemical Feeders-Large	80	81	87	92	94	100	125	177	194	195	201	212	232	249
40	Gate Valves	74	74	79	91	96	100	127	160	191	197	220	252	270	289
41	Meter Yokes	79	87	93	95	95	100	132	139	160	227	246	262	296	320
42	Corporation Stops	85	90	96	99	99	100	126	133	133	136	139	154	168	178
43	Curb Stops	86	90	96	99	99	100	126	133	135	140	146	161	177	187
44	Hydrants	71	76	84	94	95	100	143	185	214	229	261	279	293	315
45	Meters-Water	101	107	108	108	106	100	93	93	98	101	105	108	122	127
46															
47															
48															
49															
50	Construction Equipment	80	84	88	93	95	100	117	141	153	164	178	197	222	246
51															
52															
53															
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M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1	Boilers	264	273	283	292	298	307	330	344	364	380	385	404	413	425
2	Coal & Ash Handling Equipment	224	229	240	246	250	255	270	289	296	300	302	308	318	325
3	Pumps	276	281	284	292	296	300	310	327	342	353	361	391	406	419
4	Steam Pipe	254	226	215	215	215	231	271	264	241	229	222	199	199	216
5	Cranes	302	328	344	384	411	423	442	458	474	482	490	537	598	615
6	Regulators	216	225	227	229	231	236	239	248	253	257	257	256	260	241
7	Switchboards	318	317	319	333	338	343	366	398	429	439	449	499	496	572
8	Power Transformers	231	226	229	237	242	253	264	291	327	337	343	360	371	388
9	Oil Switches	279	280	275	271	268	273	336	380	402	411	399	358	369	395
10	Motors	224	250	260	261	257	266	285	339	365	357	348	376	478	495
11	Line Transformers	208	210	211	212	213	211	212	221	224	222	223	226	230	225
12	Meters-Electric	188	201	200	202	207	205	187	175	174	186	190	189	174	169
13	Treated Pine Poles	291	280	276	283	289	284	289	300	310	323	332	367	416	445
14	Standard Cross Arms	249	240	243	230	228	226	250	291	333	366	381	419	441	464
15	Standard Galv. Steel Guy Wire	254	236	227	233	233	235	249	253	252	252	251	253	254	255
16	Fibre Conduit	175	210	231	225	221	225	301	470	379	260	230	198	222	228
17	Plastic Conduit	158	183	197	189	188	199	280	409	366	316	289	237	251	260
18	Mercury Luminaires w/Standard	333	326	343	358	352	321	321	334	345	353	361	389	408	430
19	Power Wire & Control Cable	132	131	123	107	110	123	137	139	136	130	126	119	121	127
20	Overhead Conductor-Transmission	247	271	246	242	242	218	359	366	355	372	379	334	352	399
21	Underground Conductor-Transmission	270	268	256	242	277	281	298	328	405	461	469	477	477	485
22	Overhead Conductor-Distribution	252	266	259	249	244	229	349	366	354	363	366	322	341	386
23	Underground Conductor-Distribution	206	201	196	202	216	222	223	243	254	258	259	254	253	263
24	Service Cable	207	198	229	209	194	201	250	285	271	264	258	227	240	271
25	Condensers & Tubes	247	256	257	247	222	239	263	268	268	270	270	275	288	308
26	Turbo-Generators	242	256	266	270	270	274	292	302	306	312	315	325	333	343
27															
28	Gas Compressors	280	284	295	301	303	307	325	354	371	388	405	438	446	455
29	Gas Transmission Line Pipe	315	271	262	254	265	272	301	298	269	257	250	233	235	243
30	Steel Distribution Pipe	268	270	282	272	237	250	291	316	318	323	323	327	370	381
31	Plastic Pipe	132	149	157	146	146	159	218	283	285	290	275	230	235	244
32	Meters-Gas	158	146	147	158	166	165	170	177	185	190	190	191	189	190
33	House Regulators	217	221	230	237	236	243	247	253	269	280	283	297	303	302
34															
35	Cast Iron Pipe	234	254	247	265	244	244	266	282	278	275	275	275	278	266
36	Cast Iron Fittings	216	232	229	240	259	289	296	317	324	324	324	350	377	370
37	Ductile Iron Pipe	228	262	249	281	246	246	275	278	271	271	271	271	273	250
38	Chemical Feeders-Small	341	353	358	366	373	379	398	410	424	430	432	444	453	453
39	Chemical Feeders-Large	273	286	294	306	324	341	353	379	402	418	423	438	437	477
40	Gate Valves	321	358	375	395	417	441	468	517	530	540	548	561	524	540
41	Meter Yokes	336	389	389	383	394	399	445	470	478	507	516	551	566	603
42	Corporation Stops	189	200	207	212	220	220	240	254	257	273	279	303	308	318
43	Curb Stops	198	210	220	225	233	233	254	270	273	289	296	321	330	348
44	Hydrants	352	384	385	414	439	456	480	521	558	560	560	559	561	577
45	Meters-Water	128	141	148	135	135	137	140	143	152	160	173	195	175	200
46															
47															
48															
49															
50	Construction Equipment	263	269	273	276	280	286	295	281	298	320	316	324	331	333
51															
52															
53															
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55															
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M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS														
											2005		2006		2007	
		1996	1997	1998	1999	2000	2001	2002	2003	2004	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Boilers	433	443	452	460	467	474	481	489	517	535	550	565	578	590	604
2	Coal & Ash Handling Equipment	328	333	344	351	353	357	359	362	397	426	426	425.4	431	441	453
3	Pumps	440	476	496	510	528	524	525	544	557	567	575	592.3	602	620	640
4	Steam Pipe	215	204	190	183	178	170	167	160	194	270	286	292	299	307	304
5	Cranes	615	656	689	728	747	749	749	749	800	817	817	816.8	817	817	817
6	Regulators	234	232	234	237	242	240	243	255	261	271	276	290.3	343	360	375
7	Switchboards	620	656	662	689	749	813	892	983	1066	1111	1173	1227	1340	1447	1596
8	Power Transformers	370	371	400	400	400	400	383	375	486	540	545	583.7	591	648	671
9	Oil Switches	399	409	415	415	409	408	399	391	382	379	389	412	420	429	436
10	Motors	475	467	476	497	533	535	541	543	610	691	695	685.7	658	683	601
11	Line Transformers	219	206	210	210	209	217	223	225	237	250	258	298.8	345	397	405
12	Meters-Electrric	172	187	193	181	176	206	241	263	290	276	276	276	283	283	291
13	Treated Pine Poles	463	473	471	473	471	489	505	515	534	541	554	562.3	601	600	604
14	Standard Cross Arms	466	477	443	413	417	437	433	411	394	440	435	451.1	456	487	471
15	Standard Galv. Steel Guy Wire	261	280	314	313	318	249	220	227	271	302	302	300.7	280	323	323
16	Fibre Conduit	204	209	199	225	246	226	275	252	250	284	284	432.2	432	460	390
17	Plastic Conduit	252	256	251	266	281	291	319	311	323	354	354	447.3	447	527	495
18	Mercury Luminaires w/Standard	460	471	469	472	479	492	529	571	583	601	615	637.4	774	808	826
19	Power Wire & Control Cable	121	121	119	112	110	108	103	99.8	112	132	137	159.5	187	263	265
20	Overhead Conductor-Transmission	402	405	420	354	398	426	409	404	457	491	540	633.3	698	742	770
21	Underground Conductor-Transmission	487	487	487	493	485	468	461	462	519	536	559	614.6	615	615	615
22	Overhead Conductor-Distribution	386	387	399	345	381	403	388	387	437	467	515	600.3	648	692	715
23	Underground Conductor-Distribution	266	263	265	268	270	257	245	239	264	295	308	342.2	343	457	459
24	Service Cable	267	264	264	249	260	265	259	266	297	313	347	396	396	432	439
25	Condensers & Tubes	305	306	309	290	284	287	291	304	388	439	433	447.3	465	466	506
26	Turbo-Generators	348	364	369	371	387	372	380	395	397	411	400	401.8	424	440	452
27																
28	Gas Compressors	461	470	478	480	483	487	495	497	503	506	586	535.3	544	557	574
29	Gas Transmission Line Pipe	269	272	273	267	263	258	256	257	377	449	452	440.4	460	525	482
30	Steel Distribution Pipe	376	388	389	399	428	424	421	448	637	875	855	924.4	954	829	839
31	Plastic Pipe	249	251	252	255	265	295	304	308	325	351	351	393	393	509	509
32	Meters-Gas	192	196	196	191	202	209	202	193	183	185	184	187.6	197	205	231
33	House Regulators	303	303	307	306	305	312	319	318	323	336	339	343.8	356	377	377
34																
35	Cast Iron Pipe	268	279	281	285	291	297	299	301	306	341	341	345.9	346	402	402
36	Cast Iron Fittings	368	379	379	378	378	384	476	500	514	520	520	660.6	690	706	720
37	Ductile Iron Pipe	251	268	270	279	290	292	292	292	276	274	274	283.2	283	327	327
38	Chemical Feeders-Small	462	476	514	522	546	561	563	566	606	640	661	669.4	596	640	676
39	Chemical Feeders-Large	493	506	537	569	562	581	612	612	597	576	576	586.2	544	531	570
40	Gate Valves	553	592	611	630	651	685	691	691	704	718	718	718.4	720	720	720
41	Meter Yokes	670	673	677	679	699	708	713	737	762	769	794	793.6	1111	1111	1169
42	Corporation Stops	329	329	329	329	338	341	344	353	364	367	367	367.2	527	527	527
43	Curb Stops	361	361	361	361	371	374	377	387	399	403	403	402.7	577	577	577
44	Hydrants	625	795	840	874	909	961	970	970	980	989	989	989.2	1097	1097	1116
45	Meters-Water	207	197	197	198	205	206	207	207	207	207	207	234.7	248	260	262
46																
47																
48																
49																
50	Construction Equipment	336	351	380	385	389	391	396	402	414	427	443	448.3	461	463	470.6
51																
52																
53																
54																
55																
56																

M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		2008		2009		2010		2011		2012		2013		2014	
		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	Boilers	596	616	620	599	608	620	624	634	649	649	669	653	661	665
2	Coal & Ash Handling Equipment	478	537	543	513	499	503	522	536	550	559	562	563	580	581
3	Pumps	643	663	673	675	703	704	706	756	781	787	799	846	859	922
4	Steam Pipe	324	400	454	413	376	417	419	448	438	455	439	425	429	431
5	Cranes	817	899	899	899	899	899	899	899	899	899	899	965	965	1007
6	Regulators	401	427	389	390	402	408	410	418	415	428	422	428	441	425
7	Switchboards	1791	1954	2077	2218	2373	2504	2616	2757	2879	3034	3173	3319	3471	3594
8	Power Transformers	694	725	746	745	780	788	804	814	818	826	815	814	813	816
9	Oil Switches	437	455	460	461	469	475	480	483	483	485	485	488	498	500
10	Motors	635	674	696	719	717	695	713	770	777	782	804	837	849	851
11	Line Transformers	615	505	534	560	588	617	630	650	673	690	737	756	799	819
12	Meters-Electric	292	293	295	295	307	307	295	294	288	291	295	298	303	305
13	Treated Pine Poles	611	643	653	665	672	686	664	678	687	697	700	700	675	675
14	Standard Cross Arms	464	486	518	501	482	465	446	446	452	453	464	466	440	434
15	Standard Galv. Steel Guy Wire	351	381	548	536	550	405	405	405	404	423	423	488	458	486
16	Fibre Conduit	411	420	468	468	380	380	390	390	419	419	417	417	497	497
17	Plastic Conduit	522	526	609	609	463	463	468	468	521	521	477	477	478	478
18	Mercury Luminaires w/Standard	839	899	1024	1053	1087	972	990	1034	1052	1079	1061	1077	990	993
19	Power Wire & Control Cable	242	250	228	234	213	220	245	251	268	270	271	270	267	254
20	Overhead Conductor-Transmission	860	985	985	553	700	714	675	782	650	659	701	729	729	740
21	Underground Conductor-Transmission	877	927	919	929	906	885	973	971	977	1016	1026	1052	1083	1093
22	Overhead Conductor-Distribution	793	898	898	539	661	682	672	772	647	656	686	710	716	735
23	Underground Conductor-Distribution	499	541	631	609	515	518	563	577	621	647	617	654	631	645
24	Service Cable	472	510	511	390	430	460	516	579	497	505	502	512	530	562
25	Condensers & Tubes	496	603	516	462	473	525	527	575	580	566	567	528	536	549
26	Turbo Generators	457	538	468	417	439	488	474	501	498	487	564	480	478	483
27															
28	Gas Compressors	581	603	621	626	625	631	633	656	662	677	674	692	693	707
29	Gas Transmission Line Pipe	502	604	600	510	444	506	510	525	586	616	542	535	626	627
30	Steel Distribution Pipe	833	1122	1019	929	911	987	1081	1123	1350	1327	1305	1276	1253	1266
31	Plastic Pipe	541	541	644	644	464	464	470	470	535	535	464	464	403	403
32	Meters-Gas	241	250	261	252	257	252	252	256	261	271	271	272	341	342
33	House Regulators	387	392	412	400	406	414	425	430	432	438	443	443	454	454
34															
35	Cast Iron Pipe	421	468	541	541	563	563	550	550	565	676	688	697	770	779
36	Cast Iron Fittings	783	837	897	909	986	987	961	961	1091	1120	1148	1168	1230	1395
37	Ductile Iron Pipe	363	363	485	485	521	521	500	500	524	524	545	545	575	575
38	Chemical Feeders-Small	817	819	831	880	880	880	907	908	1068	1086	1092	1203	1249	1249
39	Chemical Feeders-Large	676	683	654	700	700	700	633	715	753	770	774	803	805	805
40	Gate Valves	736	736	759	759	736	778	762	762	755	755	770	790	803	824
41	Meter Yokes	1169	1169	1202	1202	1202	1241	1241	1241	1323	1594	1594	1594	1594	1594
42	Corporation Stops	527	527	527	527	527	542	542	542	542	723	723	723	723	723
43	Curb Stops	577	577	577	577	577	582	582	582	582	739	739	739	739	739
44	Hydrants	1133	1133	1155	1155	1150	1081	1089	1089	1132	1132	1166	1189	1221	1339
45	Meters-Water	373	373	373	373	374	376	379	379	379	379	380	381	381	381
46															
47															
48															
49															
50	Construction Equipment	474	483	499	502	502	501	505	516	527	539	547	552	554	562
51															
52															
53															
54															
55															
56															

M UTILITY PLANT MATERIALS

ALL REGIONS (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	COST INDEX NUMBERS													
		2015		2016		2017		2018		2019		2020		2021	
		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	Boilers	669	691	697	698	700	681	683	707	710	739	738	743	745	
2	Coal & Ash Handling Equipment	584	583	582	584	589	595	596	608	620	630	640	664	638	
3	Pumps	958	963	1043	1076	1120	1244	1248	1345	1401	1492	1526	1639	1640	
4	Steam Pipe	417	416	404	411	421	415	407	462	483	468	481	469	492	
5	Cranes	1007	1007	1007	1007	1007	1007	1041	1083	1108	1108	1141	1175	1222	
6	Regulators	416	406	396	403	412	416	420	430	436	437	442	436	445	
7	Switchboards	3757	3760	3931	3930	4109	4300	4461	4629	4847	4852	5080	5367	5620	
8	Power Transformers	812	801	795	798	822	827	868	879	901	901	902	895	911	
9	Oil Switches	500	502	502	501	501	503	505	507	511	521	530	533	539	
10	Motors	859	857	869	869	893	883	910	917	937	1006	1023	1026	963	
11	Line Transformers	854	856	884	882	918	946	982	1008	1048	1048	1086	1129	1170	
12	Meters-Electrric	307	307	307	298	298	298	304	304	306	306	323	323	332	
13	Treated Pine Poles	670	658	676	678	670	730	665	668	687	693	799	798	706	
14	Standard Cross Arms	458	448	457	458	456	451	450	450	456	456	508	512	535	
15	Standard Galv. Steel Guy Wire	486	486	486	486	515	515	515	515	541	541	623	623	671	
16	Fibre Conduit	475	475	430	430	412	412	511	511	523	523	525	525	407	
17	Plastic Conduit	479	479	468	468	452	452	514	514	521	521	549	549	611	
18	Mercury Luminaires w/Standard	981	1018	986	981	998	942	964	1008	1130	1085	1188	1206	1046	
19	Power Wire & Control Cable	258	253	224	221	225	228	246	253	255	257	261	259	303	
20	Overhead Conductor-Transmission	743	743	777	777	740	740	838	838	885	885	919	919	483	
21	Underground Conductor-Transmission	1095	1103	1108	1108	1113	1180	1252	1271	1329	1329	1339	1385	1435	
22	Overhead Conductor-Distribution	747	750	768	768	741	745	785	801	818	834	868	868	539	
23	Underground Conductor-Distribution	622	637	589	589	539	562	561	572	605	605	622	650	702	
24	Service Cable	592	600	580	578	580	593	496	544	490	540	567	564	541	
25	Condensers & Tubes	547	551	520	535	536	510	516	569	583	574	509	566	604	
26	Turbo-Generators	485	551	538	561	579	506	507	537	560	548	462	562	607	
27															
28	Gas Compressors	713	720	722	727	728	735	747	759	779	783	787	795	793	
29	Gas Transmission Line Pipe	616	589	535	544	570	601	615	693	716	689	680	639	733	
30	Steel Distribution Pipe	1243	1189	1088	1116	1175	1247	1218	1382	1432	1394	1590	1555	1564	
31	Plastic Pipe	403	403	403	403	394	394	410	410	413	413	447	447	559	
32	Meters-Gas	372	372	388	388	442	442	475	477	511	511	489	490	469	
33	House Regulators	469	469	481	481	487	487	533	533	558	565	559	559	549	
34															
35	Cast Iron Pipe	758	748	731	731	809	808	867	868	878	881	912	877	885	
36	Cast Iron Fittings	1278	1322	1380	1418	1478	1478	1481	1565	1627	1736	1883	1955	2130	
37	Ductile Iron Pipe	579	579	600	600	622	622	715	715	721	721	768	768	781	
38	Chemical Feeders-Small	1316	1404	1471	1471	1496	1589	1618	1738	1792	1871	2019	2106	2176	
39	Chemical Feeders-Large	805	805	842	842	863	891	900	939	965	990	1080	1140	1145	
40	Gate Valves	814	814	868	868	825	825	771	789	812	832	863	863	1105	
41	Meter Yokes	1594	1594	1594	1594	1594	1706	1706	1706	1706	1768	1768	1821	1821	
42	Corporation Stops	723	723	723	723	723	723	723	723	773	861	861	887	887	
43	Curb Stops	780	780	780	780	780	780	780	780	835	929	929	957	957	
44	Hydrants	1418	1591	1694	1694	1681	1681	1735	1759	1803	1830	1886	1886	2086	
45	Meters-Water	400	400	403	403	404	418	434	434	443	443	459	459	485	
46															
47															
48															
49															
50	Construction Equipment	564	568	570	574	575	579	580	575	600	609	613	620	621	
51															
52															
53															
54															
55															
56															

Cost Trends Of

Water Utility Construction

COST TREND TABLES
1912 to January 1, 2021

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1	**Source of Supply Plant**															
2	Collecting & Impounding Res.	305	7	7	7	7	9	13	15	15	17	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
9	Electric Pumping Equipment	311	-	-	15	15	17	20	22	24	24	23	21	22	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
16	Large Treatment Plant Equip.	320	9	9	9	9	11	14	16	17	20	19	18	18	20	20
17	Small Treatment Plant Equip.	320	10	10	10	10	13	17	19	19	22	20	20	20	21	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
24	Elevated Steel Tanks	330	4	4	4	11	14	16	18	19	16	13	11	12	11	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
35	Cast Iron Mains	331	9	10	9	9	12	18	20	22	25	24	22	23	24	23
36	Cement-Asbestos Mains	331	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	Steel Mains	331	6	7	6	7	8	11	13	13	14	15	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
40	Meters	334	23	23	23	23	26	29	35	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
47	Clarifier Equipment-Installed		-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	Filter Gallery Piping-Installed		8	8	8	8	10	14	16	18	20	18	17	18	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	NARUC	COST INDEX NUMBERS													
			1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
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	NARUC	COST INDEX NUMBERS													
			1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
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																

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
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	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																

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COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
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	304	64	69	75	84	92	100	117	127	130	137	148	163	181	191
9	Electric Pumping Equipment	311	81	84	89	93	96	100	122	155	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	70	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	173	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	96	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																

COST TRENDS OF WATER UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1	**Source 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	NARUC	COST INDEX NUMBERS									2005		2006		2007	
			1996	1997	1998	1999	2000	2001	2002	2003	2004	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	336	344	350	373	388	394	400	405	413	439
3																	
4																	
5																	
6																	
7	**Pumping Plant**																
8	Structures & Improvements	304	321	331	337	343	362	378	389	394	421	442	447	456	464	481	494
9	Electric Pumping Equipment	311	450	473	489	505	530	527	529	543	572	604	611	620	619	639	628
10																	
11																	
12																	
13																	
14	**Water Treatment Plant**																
15	Structures & Improvements	304	321	331	337	343	362	378	389	394	421	442	447	456	464	481	494
16	Large Treatment Plant Equip.	320	367	380	391	401	413	428	443	452	466	480	482	499	500	516	533
17	Small Treatment Plant Equip.	320	375	389	401	410	424	439	452	460	480	498	502	520	518	539	559
18																	
19																	
20																	
21																	
22	**Transmission Plant**																
23	Steel Reservoirs	330	251	255	268	268	270	274	275	276	308	329	338	348	375	494	537
24	Elevated Steel Tanks	330	268	273	283	288	299	341	429	431	481	524	524	524	596	657	657
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																	
27	Cast Iron Mains	331	311	320	323	328	348	363	383	385	393	411	415	442	451	480	484
28	Steel Mains	331	329	337	342	351	377	391	400	404	451	509	508	530	539	528	527
29	Concrete Cylinder Mains	331	324	331	338	345	372	404	415	415	425	436	440	454	459	460	462
30																	
31																	
32																	
33	**Distribution Plant**																
34	Mains-Average All Types	331	339	347	355	361	377	391	404	407	432	462	464	485	494	524	523
35	Cast Iron Mains	331	348	358	364	370	390	404	421	425	436	457	460	483	492	525	528
36	Cement-Asbestos Mains	331	364	372	375	382	405	423	444	446	460	480	483	538	546	599	597
37	Steel Mains	331	316	322	334	339	346	358	363	367	416	459	460	467	477	494	487
38	PVC Mains	331	211	216	216	219	231	242	253	254	263	277	278	321	321	365	361
39	Services Installed	333	321	323	330	334	348	354	360	368	388	404	407	421	459	478	481
40	Meters	334	207	197	197	198	205	206	207	207	207	207	207	235	248	260	262
41	Meter Installations	334	375	381	387	392	406	417	428	440	456	466	467	482	530	549	552
42	Hydrants Installed	335	418	475	493	508	526	551	565	570	585	597	597	613	647	663	669
43																	
44																	
45	**Miscellaneous Items**																
46	Flocculating Equipment-Installed		579	603	622	642	652	671	683	697	758	801	801	852	852	869	983
47	Clarifier Equipment-Installed		540	562	572	579	593	603	617	630	663	709	709	729	729	760	892
48	Filter Gallery Piping-Installed		328	337	344	349	363	378	398	408	421	438	438	468	470	500	501
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	NARUC	COST INDEX NUMBERS													
			2008		2009		2010		2011		2012		2013		2014	
			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	457	466	470	465	475	478	492	495	501	502	507	505	515	517
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	516	543	551	536	552	558	571	583	597	600	618	608	621	630
9	Electric Pumping Equipment	311	640	666	679	688	707	701	708	760	780	785	800	844	856	900
10																
11																
12																
13																
14	**Water Treatment Plant**															
15	Structures & Improvements	304	516	543	551	536	552	558	571	583	597	600	618	608	621	630
16	Large Treatment Plant Equip.	320	566	582	614	616	631	638	642	653	669	680	689	697	713	725
17	Small Treatment Plant Equip.	320	602	624	666	669	686	693	706	712	740	754	764	779	800	813
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	537	722	722	722	722	722	771	771	795	810	778	780	715	742
24	Elevated Steel Tanks	330	680	866	866	866	866	867	1079	1079	1059	1082	1089	1099	1131	1131
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	510	534	578	576	601	601	602	610	634	669	691	684	712	743
28	Steel Mains	331	543	606	605	585	593	609	644	658.5	711	708	724	704	694	708
29	Concrete Cylinder Mains	331	468	475	502	502	494	495	510	517	523	526	547	534	535	547
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	550	588	624	608	617	623	633	644	669	690	698	693	720	733
35	Cast Iron Mains	331	556	579	625	624	647	648	654	660	681	716	733	730	759	781
36	Cement-Asbestos Mains	331	621	632	691	678	638	649	658	683	716	721	712	707	704	721
37	Steel Mains	331	514	582	595	559	565	575	593	606	633	637	638	631	665	665
38	PVC Mains	331	372	374	419	408	353	363	369	389	412	412	391	392	383	383
39	Services Installed	333	501	511	534	534	545	554	568	574	589	600	602	602	603	605
40	Meters	334	373	373	373	373	374	376	379	379	379	379	380	381	381	381
41	Meter Installations	334	572	573	597	598	612	623	635	635	646	673	677	677	688	688
42	Hydrants Installed	335	693	699	732	731	740	721	730	731	757	758	774	784	807	849
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		1187	1373	1645	1645	1699	1744	1823	1848	1904	1973	1978	2015	2041	2078
47	Clarifier Equipment-Installed		920	944	997	997	991	1001	1056	1060	1077	1102	1105	1136	1154	1162
48	Filter Gallery Piping-Installed		530	543	589	590	613	614	620	620	641	666	677	680	713	728
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	NARUC	COST INDEX NUMBERS													
			2015		2016		2017		2018		2019		2020		2021	
			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	526	521	526	532	543	549	559	570	576	575	584	583	605	
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	642	646	655	659	672	671	687	706	717	713	719	730	762	
9	Electric Pumping Equipment	311	928	931	990	1013	1052	1135	1146	1216	1261	1346	1374	1454	1436	
10																
11																
12																
13																
14	**Water Treatment Plant**															
15	Structures & Improvements	304	642	646	655	659	672	671	687	706	717	713	719	730	762	
16	Large Treatment Plant Equip.	320	736	737	755	758	774	785	797	812	832	842	871	890	922	
17	Small Treatment Plant Equip.	320	832	840	861	864	881	897	911	934	960	975	1012	1035	1075	
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	742	742	742	774	784	784	801	820	832	832	836	836	836	
24	Elevated Steel Tanks	330	1131	1131	1131	1143	1161	1161	1181	1200	1244	1244	1244	1244	1244	
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	
26																
27	Cast Iron Mains	331	733	744	754	759	793	785	810	825	844	858	884	895	931	
28	Steel Mains	331	712	713	697	705	723	726	733	770	792	785	824	830	845	
29	Concrete Cylinder Mains	331	562	575	591	592	601	592	620	626	639	641	638	653	664	
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	736	738	747	750	774	772	790	801	819	826	847	850	883	
35	Cast Iron Mains	331	780	785	795	797	832	826	855	864	883	894	920	924	952	
36	Cement-Asbestos Mains	331	724	731	741	743	751	746	763	770	784	793	820	831	900	
37	Steel Mains	331	673	670	678	681	697	701	704	717	734	736	748	748	775	
38	PVC Mains	331	387	387	388	388	387	387	397	397	401	401	417	418	471	
39	Services Installed	333	617	616	622	617	638	651	661	667	677	684	706	701	712	
40	Meters	334	400	400	403	403	404	418	434	434	443	443	459	459	485	
41	Meter Installations	334	702	702	709	708.5	722	733	750	750	765	772	790	797	815	
42	Hydrants Installed	335	877	930	971	972	980	981	1012	1024	1049	1063	1101	1104	1184	
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		2167	2177	2192	2192	2198	2213	2223	2264	2360	2360	2470	2481	2567	
47	Clarifier Equipment-Installed		1184	1188	1229	1272	1311	1315	1369	1401	1462	1462	1523	1557	1662	
48	Filter Gallery Piping-Installed		727	728	735	738	772	772	801	808	825	834	868	866	900	
49																
50																
51																
52																
53																
54																
55																
56																

Water and Wastewater General Information

Appraisal Work Papers

Cost Indices

AUS Consultants Index of General Support Assets

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AUS Telephone Plant Index

Cost Trend Tables from 1946 to January 1, 2021

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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

Appendix A-5-1 (AUS)

AUS TELEPHONE PLANT INDEX

NORTH ATLANTIC REGION 1973-100

LINE NO	PLANT IN SERVICE DESCRIPTION	ACCT NO	COST INDEX NUMBER																LINE NO
			1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	
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																			26
27	Radio System-Analog	22311	51	57	62	63	63	66	64	60	58	58	49	49	46	47	46	46	27
28	Radio System-Digital	22312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29	Circuit Equipment-Analog	22321	347	392	417	411	419	423	416	401	348	314	319	317	303	299	312	297	29
30	Circuit Equipment-Digital	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	66	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	24241	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	63	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 (Distr)	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 (Distr)	24243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	Intra Building Cable-FTTP (Distr)	24263	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

LINE NO.	COST INDEX NUMBER																						LINE NO.
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974 Jan 1	1974 Jul 1	1975 Jan 1	1975 Jul 1	1976 Jan 1	1976 Jul 1	1977 Jan 1	1977 Jul 1	1978 Jan 1	1978 Jul 1	1979 Jan 1	1979 Jul 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	85	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	92	96	97	99	100	100	100	102	103	100	100	98	99	99	99	99	99	14
15																									15
16																									16
17	0	0	0	0	0	0	0	0	0	0	0	104	103	106	110	111	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	113	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	133	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	110	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

LINE NO	PLANT IN SERVICE DESCRIPTION	ACCT NO	COST INDEX NUMBERS																LINE NO
			1980		1981		1982		1983		1984		1985		1986		1987		
			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	Jan 1	Jul 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	193	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	101	101	102	90	91	94	94	79	80	80	81	77	78	82	82	27
28	Radio System-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	24241	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 (Distr.)	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 (Distr.)	24243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
53	Intra Building Cable-FTTP (Distr.)	24263	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

LINE NO.	COST INDEX NUMBERS																						LINE NO.
	1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
	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	Jan 1	Jul 1	Jan 1	Jul 1	Jan 1	Jul 1	Jan 1	Jul 1	Jan 1	Jul 1	
1	150	153	158	165	164	163	167	165	165	165	167	168	169	170	171	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	273	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	238	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	91	90	89	90	89	89	88	87	88	89	90	91	91	92	93	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	71	71	75	75	41
42	235	244	260	274	274	277	283	278	282	279	285	286	287	288	298	310	319	324	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	360	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

LINE NO	PLANT IN SERVICE DESCRIPTION	ACCT NO	COST INDEX NUMBERS															LINE NO
			2000		2001		2002		2003		2004		2005		2006		2007		
			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	Jan 1	Jul 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	Gargare 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	385	407	412	425	431	441	443	457	472	11
12	Furniture	2122	335	337	338	341	341	341	344	346	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	22	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	93	95	95	95	95	99	95	95	94	97	98	94	27
28	Radio System-Digital	22312	125	125	126	127	128	127	125	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	145	144	148	150	144	29
30	Circuit Equipment-Digital	22322	36	36	36	37	37	38	38	39	38	38	39	39	39	40	40	41	30
31																			31
32	Public Telephone Term Eq	2351	193	193	193	191	190	190	190	191	191	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	562	521	526	529	35
36	Aerial Cable-Metallic	2-211	313	322	328	333	335	338	340	349	357	371	379	386	430	486	477	492	36
37	Aerial Cable-Fiber	2-212	96	98	100	102	104	105	105	108	110	112	114	116	118	119	121	122	37
38	Underground Cable-Metallic	2-221	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	340	353	362	372	379	384	417	459	454	466	42
43	Submarine Cable-Fiber	24241	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	471	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 (Distr)	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 (Distr)	24243	0	0	0	0	0	0	0	0	0	100	99	98	98	97	96	96	52
53	Intra Building Cable-FTTP (Distr)	24263	0	0	0	0	0	0	0	0	0	100	100	100	100	100	101	103	53
54																			54

SCHEDULE NO. T-1

AUS TELEPHONE PLANT INDEX

NORTH ATLANTIC REGION 1973-100

LINE NO.	COST INDEX NUMBERS																						LINE NO.
	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		
	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	Jan 1	Jul 1	Jan 1	Jul 1	Jan 1	Jul 1	Jan 1	Jul 1	
1	251	256	245	248	258	260	279	282	282	282	285	283	284	285	289	287	283	282	288	290	298	304	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	304	4
5	161	471	495	480	485	490	497	502	514	520	523	528	532	537	541	543	543	547	548	553	557	562	5
6	476	485	499	504	503	503	507	518	529	541	548	555	557	564	566	570	572	576	577	581	583	578	6
7	435	445	457	457	456	458	462	474	179	485	489	494	497	503	505	509	510	513	514	519	522	533	7
8	281	286	290	286	286	288	288	290	291	294	295	296	304	307	309	315	318	322	322	324	327	330	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	633	647	11
12	389	402	417	415	418	420	415	429	433	437	433	437	439	450	449	454	454	455	457	461	464	482	12
13	162	171	184	171	169	169	170	171	173	173	164	165	166	166	171	172	172	172	173	171	171	169	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 63	0 55	0 63	0 64	0 65	0 73	0 71	0 67	0 64	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	179	17
18	24	24	25	25	25	25	25	25	26	26	26	27	27	27	27	28	28	28	28	29	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	497	502	502	509	506	21
22																							22
23	288	292	297	299	300	305	307	311	313	309	312	317	320	319	322	322	320	321	324	325	328	327	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	90	27
28	131	132	134	134	135	137	138	138	137	138	138	138	138	138	139	140	140	140	140	141	141	142	28
29	140	139	139	139	138	138	137	138	137	137	137	138	139	139	140	140	141	141	141	142	142	143	29
30	41	41	41	41	40	40	40	41	41	42	42	42	43	43	44	44	44	45	45	45	46	46	30
31																							31
32	180	179	177	178	177	177	174	175	173	174	173	174	175	175	176	176	177	177	177	179	177	179	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	652	643	652	35
36	494	507	461	473	506	509	573	582	577	576	582	572	573	573	578	570	555	551	566	568	590	604	36
37	123	124	126	127	128	130	131	133	135	136	137	138	140	142	143	144	146	148	149	151	153	155	37
38	465	481	421	435	475	476	555	562	554	552	556	544	542	540	544	533	513	506	523	524	548	563	38
39	100	100	102	103	103	105	106	108	109	110	111	112	113	114	116	116	118	119	120	122	123	125	39
40	459	475	410	425	467	467	553	590	550	547	552	538	536	533	537	524	501	493	511	511	537	552	40
41	95	96	97	98	99	100	101	103	104	105	106	107	108	109	111	111	113	114	115	116	118	120	41
42	468	479	447	458	484	486	535	541	539	540	545	539	541	542	547	544	534	532	546	548	566	578	42
43	155	157	159	161	163	164	166	168	170	172	173	174	177	179	181	183	185	187	189	191	194	196	43
44	491	504	459	471	504	507	570	578	573	573	578	569	569	570	575	567	553	549	564	566	588	602	44
45	124	125	127	128	129	131	132	134	135	137	138	139	141	142	144	145	147	148	150	152	154	156	45
46	475	488	469	478	496	501	519	528	525	527	531	530	533	538	543	543	540	541	551	556	569	580	46
47	502	507	525	530	516	521	526	532	545	550	549	552	559	565	571	577	581	586	594	596	611	618	47
48																							48
49	82	77	75	73	65	58	55	53	52	50	50	50	50	50	50	49	50	49	49	50	49	50	49
50	94	92	89	87	83	80	75	70	66	62	58	54	54	54	53	53	54	54	54	55	54 3	55 3	50
51	92	82	78	74	71	68	66	63	61	59	57	54	54	55	54	54	54	53	53	54	52 7	53 7	51
52	94	92	89	87	83	80	75	70	66	62	58	54	54	54	53	53	54	54	54	55	54 3	55 3	52
53	104	105	98	75	68	61	54	17	13	39	39	39	39	39	38	38	39	44	44	44	43 7	44 7	53
54																							54

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AUS TELEPHONE PLANT INDEX

NORTH ATLANTIC REGION 1973-100

LINE NO	PLANT IN SERVICE DESCRIPTION	ACCT	COST INDEX NUMBERS														LINE NO
			2019		2020		2021		2022		2023		2024		2025		
			Jan I	Jul I	Jan I	Jul I	Jan I	Jul I	Jan I	Jul I	Jan I	Jul I	Jan I	Jul I	Jan I	Jul I	
1	Total Plant		304	305	308	314	318										1
2																	2
3																	3
4	Motor Vehicles	2112	309	305	308	304	310										4
5	Aircraft	2113	567	574	575	581	583										5
6	Special Purpose Vehicles	2114	602	612	616	622	623										6
7	Garage Work Equipment	2115	541	550	550	555	556										7
8	Other Work Equipment	2116	333	335	336	340	343										8
9																	9
10																	10
11	Buildings	2121	647	648	664	662	662										11
12	Furniture	2122	491	497	503	512	513										12
13	Office Equipment	2123	170	172	171	170	169										13
14	General Purpose Computer	2124	0.60	0.60	0.51	0.51	0.34										14
15																	15
16																	16
17	Analog Electronic Switching	2211	179	179	181	180	180										17
18	Digital Electronic Switching	2212	29	29	30	30	30										18
19																	19
20																	20
21	Electro-Mechanical Switching	2215	513	517	518	528	529										21
22																	22
23	Operator Systems	2220	331	334	335	340	341										23
24																	24
25																	25
26																	26
27	Radio System-Analog	22311	90	90	91	91	91										27
28	Radio System-Digital	22312	143	144	146	147	147										28
29	Circuit Equipment-Analog	22321	143	144	145	145	145										29
30	Circuit Equipment-Digital	22322	47	47	48	48	49										30
31																	31
32	Public Telephone Term Eq	2351	179	180	181	181	181										32
33																	33
34																	34
35	Poles	2411	661	671	699	710	715										35
36	Aerial Cable-Metallic	24211	601	603	605	608	634										36
37	Aerial Cable-Fiber	24212	157	158	160	162	164										37
38	Underground Cable-Metallic	24221	558	557	558	559	590										38
39	Underground Cable-Fiber	24222	126	128	129	130	132										39
40	Buried Cable-Metallic	24231	545	544	544	545	577										40
41	Buried Cable-Fiber	24232	121	122	123	125	126										41
42	Submarine Cable-Metallic	24241	578	580	583	587	608										42
43	Submarine Cable-Fiber	24241	199	200	203	205	207										43
44	Intra Building Cable-Metallic	24261	599	601	603	606	632										44
45	Intra Building Cable-Fiber	24262	158	159	161	163	165										45
46	Aerial Wire	2431	583	587	592	597	612										46
47	Conduit Systems	2441	626	631	642	648	655										47
48																	48
49	Aerial Cable-FTTP (Distribution)	24213	50.5	50	50	50	50										49
50	Underground Cable-FTTP (Distr)	24223	55.8	55.1	55.1	55.1	55.1										50
51	Buried Cable-FTTP (Distribution)	24233	54.2	53.7	53.7	53.7	53.7										51
52	Submarine Cable-FTTP (Distr)	24243	55.8	55.1	55.1	55.1	55.1										52
53	Intra Building Cable-FTTP (Distr)	24263	45.2	44.7	44.7	44.7	44.7										53
54																	54

Water and Wastewater General Information

Appraisal Work Papers

Cost Indices

United States Bureau of Labor Statistics – General Inf Cost Indexes

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AUS Consultants
Bureau of Labor Statistics Indexes

Index	Table	Region	Year	Begin Date	End Date	CPI	1	2 Communic Equipment pcu3342	3 Technical Labor ecu11122I linked CIU20154
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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AUS Consultants
Bureau of Labor Statistics Indexes

Index	Table	Region	Year	Begin Date	End Date	CPI	1	2 Communic Equipment pcu3342	3 Technical Labor ecu11122l linked CIU20154
Earliest Year							1913	1986	1985
Index	Table	Region					1	2	3
BLS	BLS	All	1952	1/1/1952	12/31/1952		27	23	16
BLS	BLS	All	1953	1/1/1953	12/31/1953		27	23	16
BLS	BLS	All	1954	1/1/1954	12/31/1954		27	23	16
BLS	BLS	All	1955	1/1/1955	12/31/1955		27	23	16
BLS	BLS	All	1956	1/1/1956	12/31/1956		27	23	16
BLS	BLS	All	1957	1/1/1957	12/31/1957		28	24	17
BLS	BLS	All	1958	1/1/1958	12/31/1958		29	25	18
BLS	BLS	All	1959	1/1/1959	12/31/1959		29	25	18
BLS	BLS	All	1960	1/1/1960	12/31/1960		30	26	19
BLS	BLS	All	1961	1/1/1961	12/31/1961		30	26	19
BLS	BLS	All	1962	1/1/1962	12/31/1962		30	26	19
BLS	BLS	All	1963	1/1/1963	12/31/1963		31	27	20
BLS	BLS	All	1964	1/1/1964	12/31/1964		31	27	20
BLS	BLS	All	1965	1/1/1965	12/31/1965		32	28	21
BLS	BLS	All	1966	1/1/1966	12/31/1966		32	28	21
BLS	BLS	All	1967	1/1/1967	12/31/1967		33	29	22
BLS	BLS	All	1968	1/1/1968	12/31/1968		35	31	23
BLS	BLS	All	1969	1/1/1969	12/31/1969		37	33	24
BLS	BLS	All	1970	1/1/1970	12/31/1970		39	35	25
BLS	BLS	All	1971	1/1/1971	12/31/1971		41	37	26
BLS	BLS	All	1972	1/1/1972	12/31/1972		42	38	27
BLS	BLS	All	1973	1/1/1973	12/31/1973		44	40	28
BLS	BLS	All	1974	1/1/1974	12/31/1974		49	44	31
BLS	BLS	All	1975	1/1/1975	12/31/1975		54	49	34
BLS	BLS	All	1976	1/1/1976	12/31/1976		57	52	36
BLS	BLS	All	1977	1/1/1977	12/31/1977		61	56	38
BLS	BLS	All	1978	1/1/1978	12/31/1978		65	60	40
BLS	BLS	All	1979	1/1/1979	12/31/1979		73	67	45
BLS	BLS	All	1980	1/1/1980	12/31/1980		82	75	50
BLS	BLS	All	1981	1/1/1981	12/31/1981		91	83	55
BLS	BLS	All	1982	1/1/1982	12/31/1982		97	89	59
BLS	BLS	All	1983	1/1/1983	12/31/1983		100	92	61
BLS	BLS	All	1984	1/1/1984	12/31/1984		104	96	63
BLS	BLS	All	1985	1/1/1985	12/31/1985		108	100	65
BLS	BLS	All	1986	1/1/1986	12/31/1986		110	102	66
BLS	BLS	All	1987	1/1/1987	12/31/1987		114	104	69
BLS	BLS	All	1988	1/1/1988	12/31/1988		118	104	72
BLS	BLS	All	1989	1/1/1989	12/31/1989		124	106	76
BLS	BLS	All	1990	1/1/1990	12/31/1990		131	108	80

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AUS Consultants
Bureau of Labor Statistics Indexes

Index	Table	Region	Year	Begin Date	End Date	CPI	1	2 Communic Equipment pcu3342	3 Technical Labor ecu11122I linked CIU20154
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	95	176
BLS	BLS	All	2017	1/1/2017	12/31/2017		245.1	94	179
BLS	BLS	All	2018	1/1/2018	12/31/2018		251.1	93	183
BLS	BLS	All	2019	1/1/2019	12/31/2019		255.7	93	187
BLS	BLS	All	2020	1/1/2020	12/31/2020		258.8	94	191
BLS	BLS	All	2021	1/1/2021	12/31/2021		261.6	94	192

S:\Cost Indices\Communications Power\Central Office Power 1-1-2021

Index	Table	Region	Year	Begin Date	End Date	1 Switch Gear PCU3353 13335313 30%	2 Relays PCU3353 14335314 30%	3 Battery Systems PCU3359 12335912 40%	4 Power Systems Calculation Composite	5 Alarm Systems PCU33429 03342901	6 Motors & Generators PCU33531 2335312	7 Emergency Generators Means Ref 26 32 13.13 2600
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	106.7	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	137.6	125.2	103.4	127.5	84.1
POW	POW	All	1991	1/1/1991	12/31/1991	121.8	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	137.6	104.2	134.2	90.6
POW	POW	All	1995	1/1/1995	12/31/1995	132.4	130.7	154.5	140.7	106.6	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	165.1	157.1	110.8	142.4	103.8
POW	POW	All	2004	1/1/2004	12/31/2004	153.7	155.2	165.1	158.7	109.8	145.8	104.3
POW	POW	All	2005	1/1/2005	12/31/2005	160.4	160.0	166.9	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	198.2	194.5	192.8	194.9	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	201.1	139.8
POW	POW	All	2013	1/1/2013	12/31/2013	201.5	200.1	198.4	199.8	121.5	203.2	121.9
POW	POW	All	2014	1/1/2014	12/31/2014	200.3	202.7	198.9	200.5	122.2	206.1	106.5
POW	POW	All	2015	1/1/2015	12/31/2015	199.3	205.7	198.4	200.9	123.2	206.4	111.9
POW	POW	All	2016	1/1/2016	12/31/2016	199.6	206.9	196.6	200.6	123.9	204.6	111.9
POW	POW	All	2017	1/1/2017	12/31/2017	200.4	209.8	203.9	204.6	124.6	206.5	111.9
POW	POW	All	2018	1/1/2018	12/31/2018	204.7	211.8	215.5	211.2	123.9	211.9	119.7
POW	POW	All	2019	1/1/2019	12/31/2019	211.6	215.1	218.3	215.3	124.3	215.6	119.7
POW	POW	All	2020	1/1/2020	12/31/2020	219.1	218.5	218.8	218.8	125.5	216.2	119.7

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

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 it normal service life using the following formula:

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

or

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

Where: Remaining Life = f(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 base on the difference between the property's normal service life and its functional service life. The following formula was used to calculate the obsolescence:

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

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 Depreciation Service Life Experience in Pennsylvania

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 and depreciation studies filed with recent PAWC and Aqua America rate cases. With each of their rate case filings PAWC and Aqua America have filed depreciation studies in support of their depreciation service lives and associated depreciation expenses contained within their revenue requirements. The depreciation studies were prepared by Gannett Fleming Rate Consultants a recognized firm in the depreciation consulting area. AUS Consultants has reviewed the studies which are summarized in the following table:

Summary of PAWC Depreciation Studies Prepared for Rate Case

Account	Account Description	Iowa Curves		Service Life		Remaining Life	
		12/31/2016	12/31/2019	12/31/2016	12/31/2019	12/31/2016	12/31/2019
				years	years	years	years
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	R3	R3	45	45	39.1	33.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	R2.5	S0	50	55	45.2	32.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	R2	S0	65	55	56.6	31.7
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	S1	S1	35	35	33.3	23.2
355.00	POWER GENERATION EQUIPMENT	R2.5	S0.5	35	35	29.7	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	S2	R3	70	75	53.1	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	R2.5	R2.5	70	80	56.9	54.8
361.20	MANHOLES	S1.5	S2.5	50	50	41.3	32.2
363.00	SERVICES	R3	R3	38	47	22.9	30.2
364.00	FLOW MEASURING DEVICES	L3	L2.5	20	15	13.3	5.1
365.00	FLOW MEASURING INSTALLATIONS	S1.5	S2	30	25	23.1	10.8
370.00	RECEIVING WELLS	R3	R3	50	50	42.7	33.7
371.00	PUMPING EQUIPMENT	S0	S0.5	40	30	35.5	18.2
380.00	TREATMENT EQUIPMENT	S-R2	S1.5	45	35	37.1	20.1
381.00	PLANT SEWERS	R3	R3	50	50	43.1	32.7
382.00	OUTFALL SEWER LINES	R3	R3	50	50	37.8	28.3
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	S2.5	S2.5	20	20	13.6	11.3
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	SQ	SQ	20	5	12.3	3.5
390.00	OFFICE FURNITURE AND EQUIPMENT	L4	SQ	15	20	9.5	10.1
391.00	TRANSPORTATION EQUIPMENT	SQ	L4	25	14	19,9	9.8
392.00	STORES EQUIPMENT	SQ	SQ	20	25	16.4	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	SQ	SQ	15	20	11,3	15.4
394.00	LABORATORY EQUIPMENT	L2.5	SQ	16	15	8.7	10.4
395.00	POWER OPERATED EQUIPMENT	SQ	R2	15	22	10.3	13.2
396.00	COMMUNICATION EQUIPMENT	SQ	SQ	15	15	9.6	6.9
397.00	MISCELLANEOUS EQUIPMENT		SQ		15		12.8
398.00	OTHER TANGIBLE PLANT		SQ		25		21.5
	TOTAL DEPRECIABLE PLANT						

AUS Consultants believe this increase in service lives is attributable to the widespread use of relining older mains instead of replacing mains which are in need of repair. The practice of relining mains with a cured in place plastic liner not only repairs specific main but has the affect of extending the life of the original main by the length of time which the relining can be expected to last. Most relining vendors warranty their product and procedure for 50 years. Thus, in essence the original mains' service life will be extended by 50 plus years at the date the relining occurred. For those mains associated with relining their installation date was established at the date of their relining and their depreciation parameters were established the same as the depreciation parameters of the relining, i.e., R2.5 – 60 years.

The following table presents the depreciation parameters (Iowa-type survivor curve and service life) used in the cost approach in calculating the deprecation of the property:

Pennsylvania American Water Company
The York City Sewer Authority Wastewater System
Wastewater Collection & Treatment System
Investor-Owned Utility
April 6, 2021

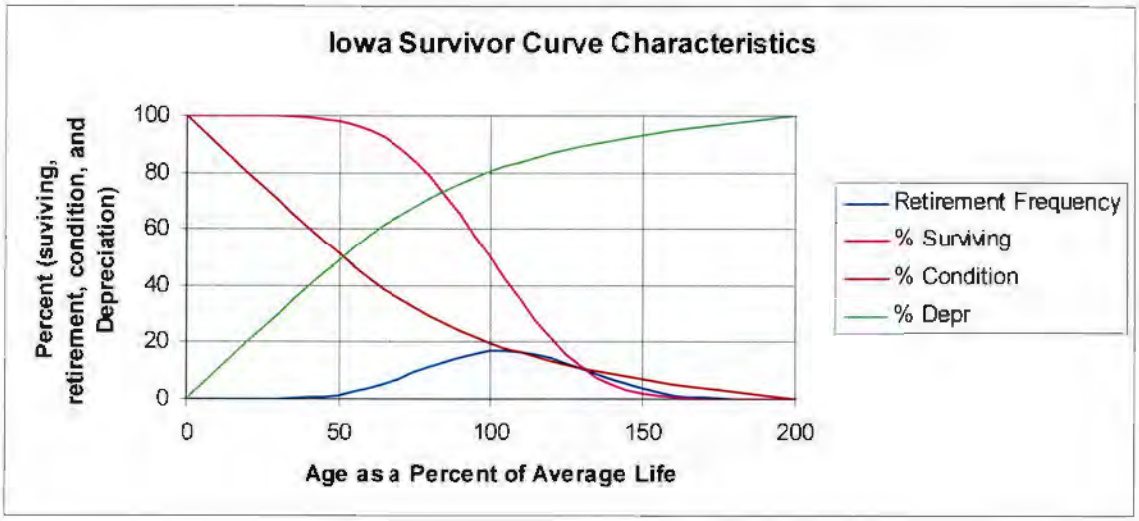
Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.00	Land & Land Rights	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.05	Land & Land Rights - Easements	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
360.21	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.00	Mains Gravity	R2.5	80.00	0.00%	MACRS	25.00
361.70	Collection Sewers - Gravity - Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	50.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	S2.0	30.00	0.00%	MACRS	25.00
371.20	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.00	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00

As the above table demonstrates the depreciation lives selected for the AUS Consultants appraisal are consistent with the industry depreciation studies' finding for wastewater plant. However due to the age of some of the property the extend of the depreciation was limited to 85% of the assets original cost and its replacement cost new.

Iowa Survivor Curves

The Iowa Survivor Curves recommended in the McKeesport 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, say1985) 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.

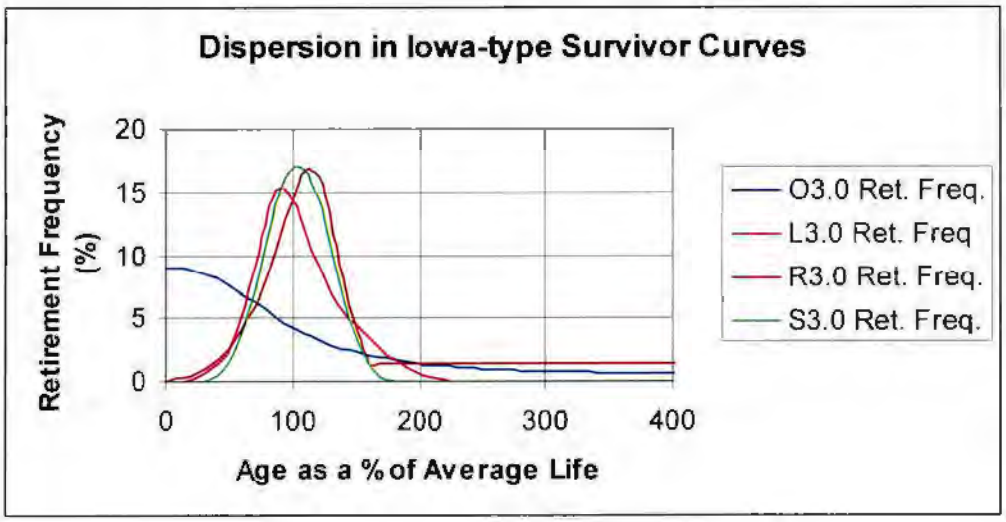


The above figure depicts a typical Iowa-type survivor curve, an S3.0 Iowa-type survivor curve. In this case the survivor curve has been generalized to a service life of 100% of the property's average life, in this generalized form the survivor curve statistics can be utilized with any individual service 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 distributes 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 depict

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:



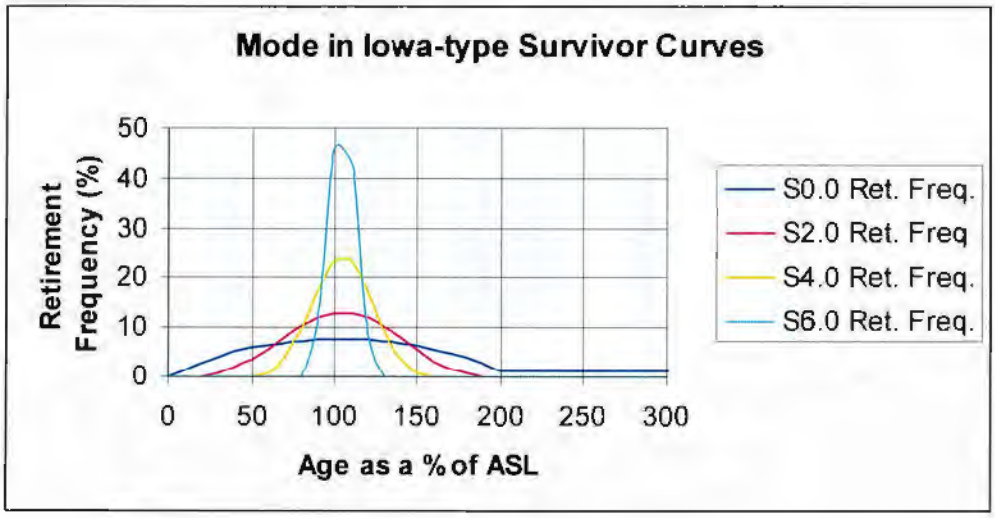
Symmetrically moded (S-type Iowa Survivor Curves) (green) – The S-type Iowa Survivor Curve is one wherein the property's retirements are symmetrically distributed about the mode. Mode in statistics is defined as the highest frequency, in this case retirement frequency. Thus an S-type Iowa curve is like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

Right moded (R-type Iowa Curves) (brown) – the R-type Iowa 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 Iowa Curve) (red) – The L-type Iowa 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 it 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 determine 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 entire life, while high peakedness numbers, 5 and 6 represent retirement patterns where the majority or all the retirement 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 Iowa 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.

Iowa-type survivor curves are parametric, as opposed to formalistic, in that they were derived from empirical survival/retirement data which Winfrey collected. There are Iowa curve equations are presented in Bulletin 125; however, in most cases users reference standardized Iowa Survivor Curve tables. The Iowa-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 Iowa-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 Iowa-type Survivor Curves

As was discussed earlier, most users of the Iowa-type survivor curves use standardized tables of Iowa 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 Iowa-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
				ASL						
		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 factor which are known to be impacting the property's

service life but may not exhibited 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
				ASL						
		years		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 statiatically 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 induatrial property retirement dispersion. Because of the very simple mnemonic coding system which suggests the varying statistical characteristice 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 Winfrey

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

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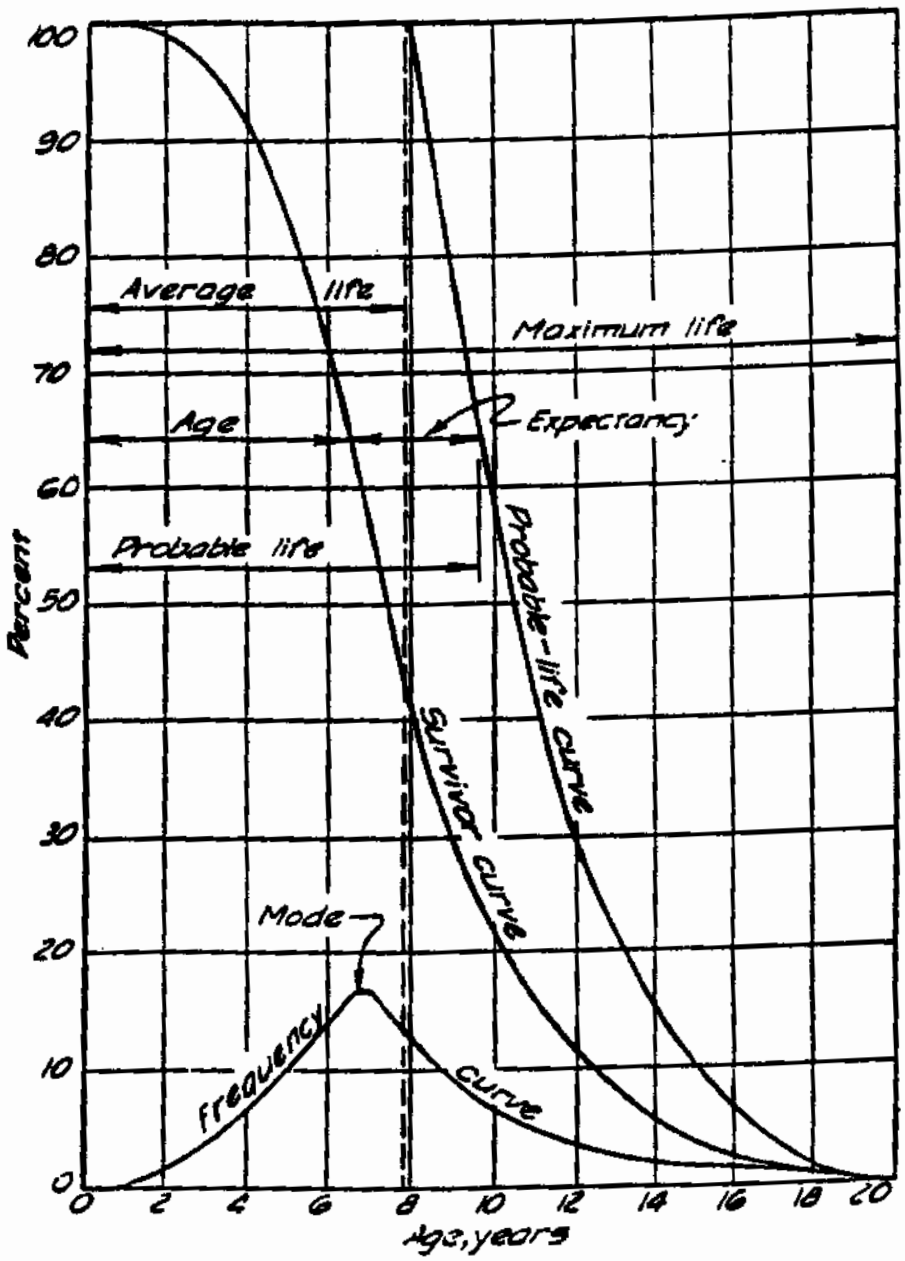


FIG. 1.—A typical survivor curve and its derived curves.

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, ton-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

CHART NO. 9

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

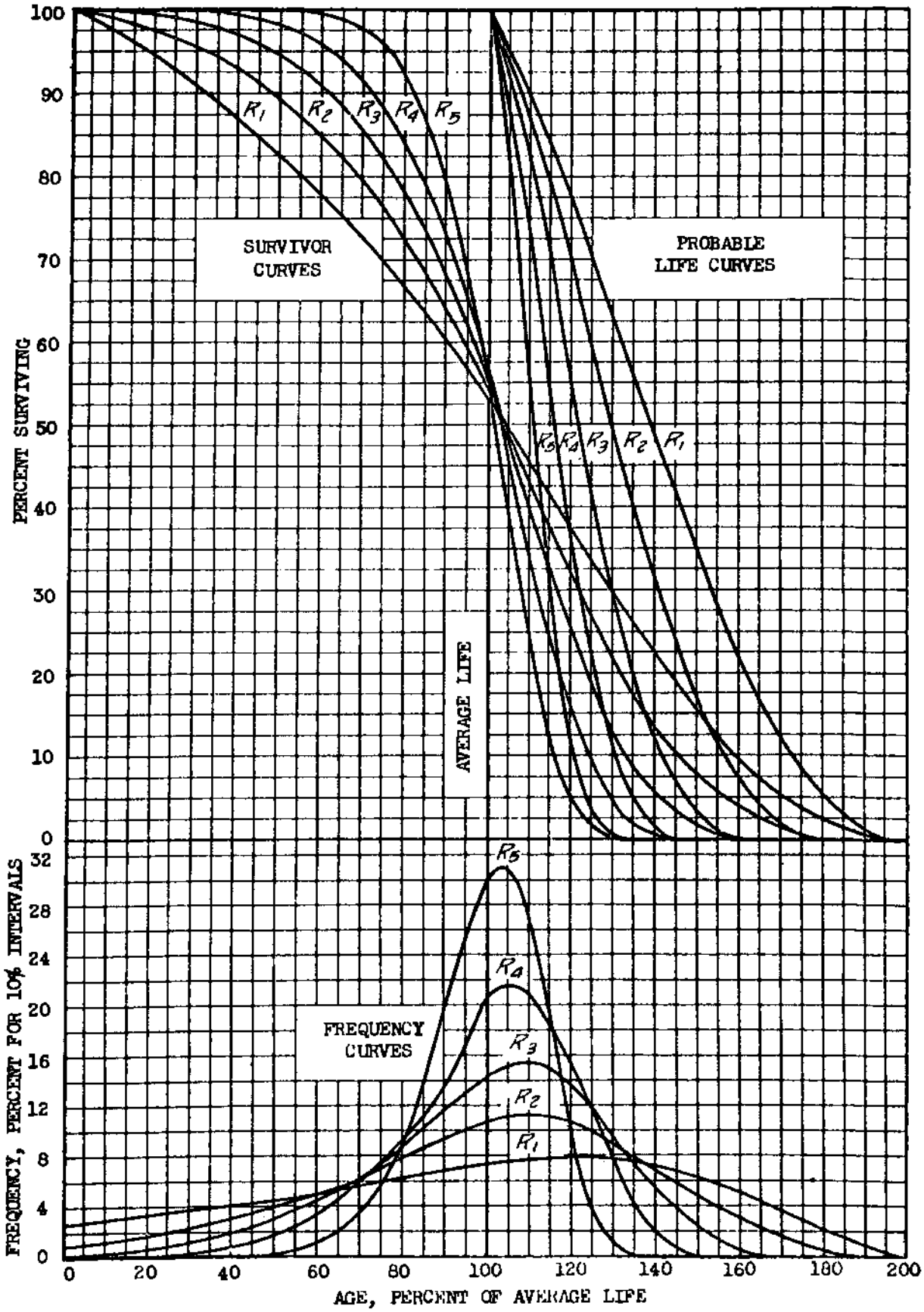


CHART NO. 8

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

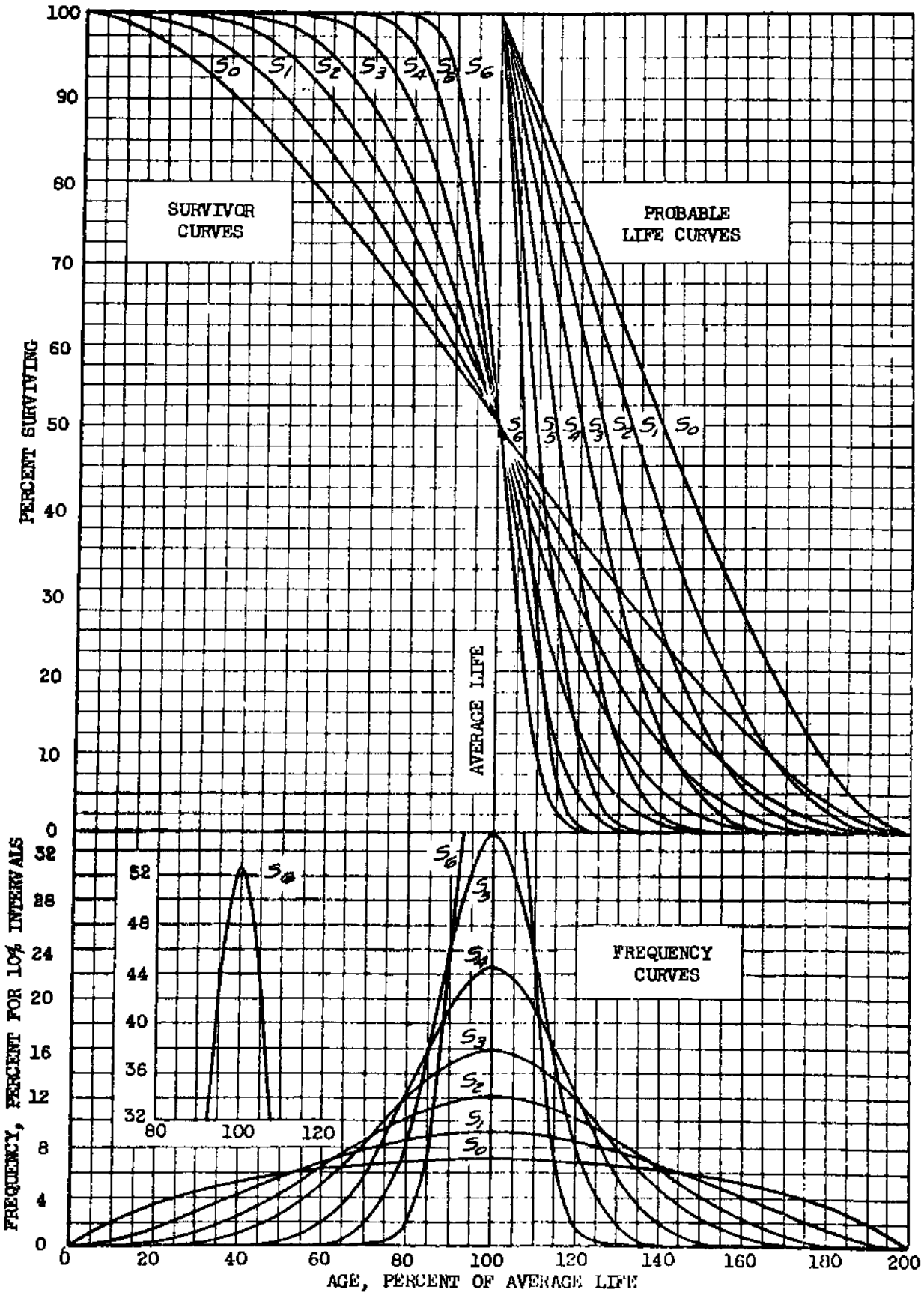


CHART NO. 7

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

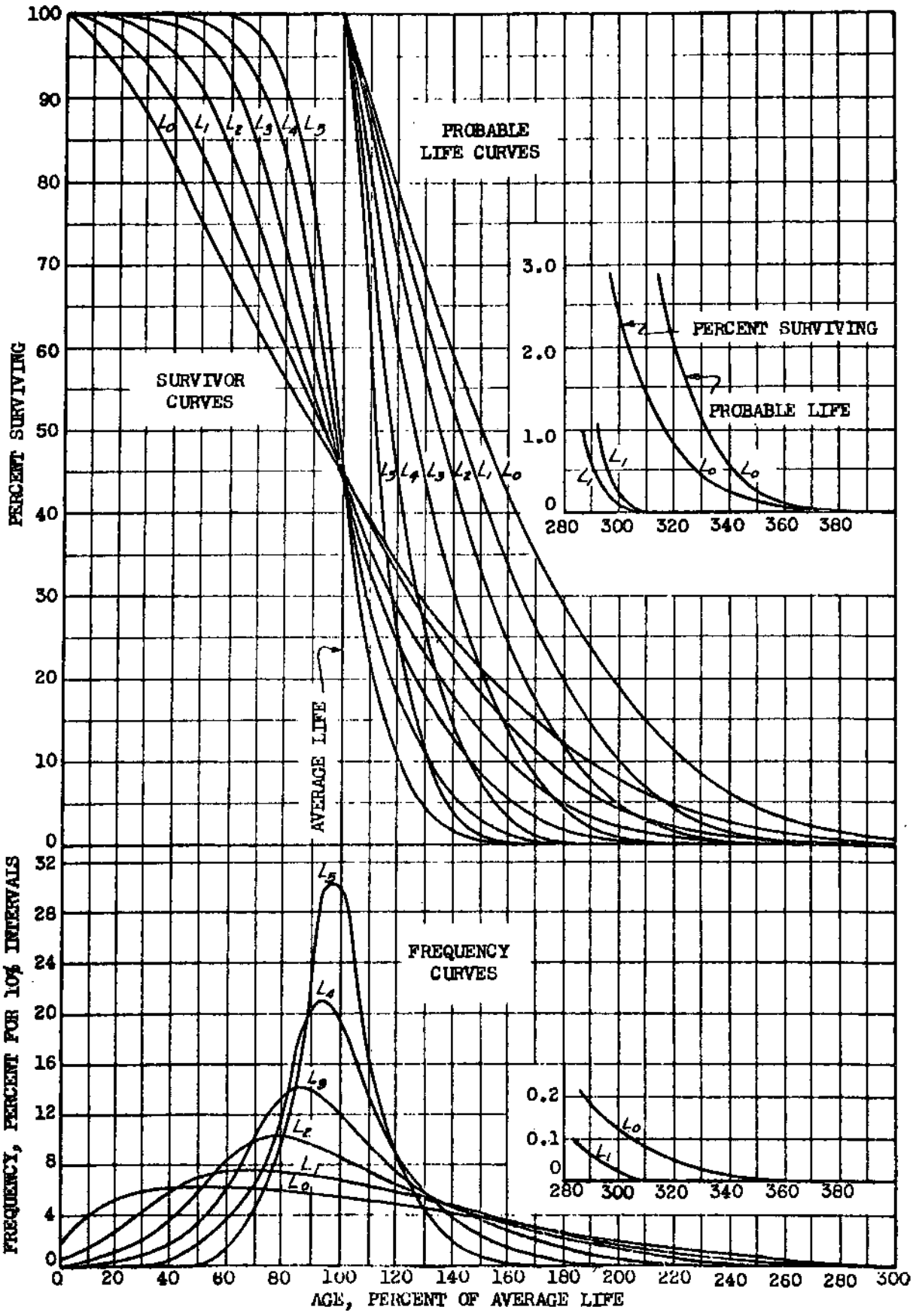
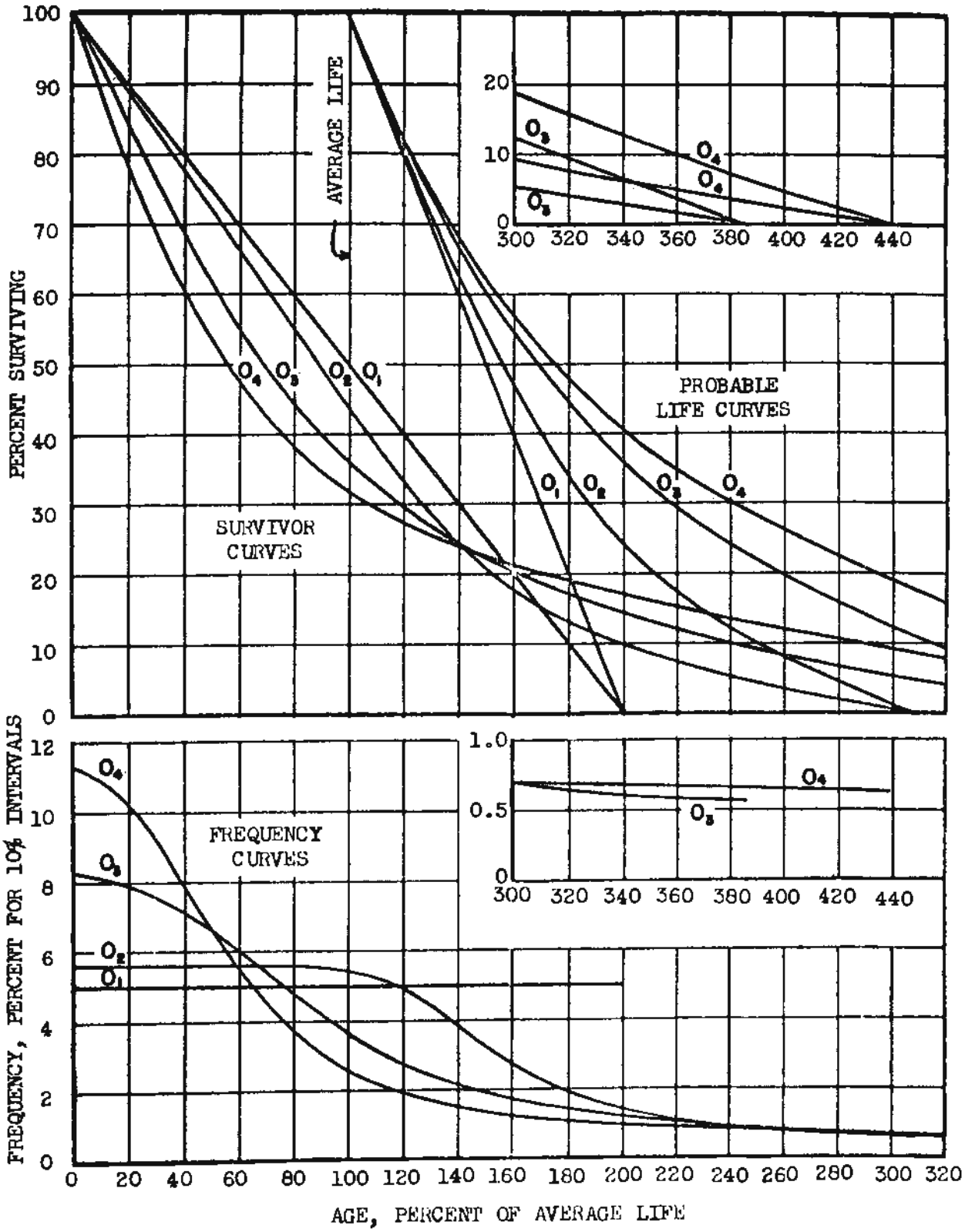


CHART NO. 10

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



Iowacurves.xls

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	0.0981016	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	91.9418526	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	97.1946471	81.5498714	18.4501286
R2.0022	R2.0	22	0.1896649	97.0106545	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	23.4777260
R2.0028	R2.0	28	0.2251892	95.7861462	75.8960373	24.3039627
R2.0029	R2.0	29	0.2315780	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	94.3363838	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	32.3715496
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

Iowacurves.xls

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	90.6354046	61.4458170	38.5541830
R2.0047	R2.0	47	0.3723984	90.2722206	60.6910148	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	0.4211368	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	86.5675259	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	51.9677110	48.0322890
R2.0060	R2.0	60	0.5085907	84.6470652	51.2699108	48.7300892
R2.0061	R2.0	61	0.5203457	84.1384745	50.5767999	49.4232001
R2.0062	R2.0	62	0.5322781	83.6181288	49.8884211	50.1115789
R2.0063	R2.0	63	0.5443878	83.0858507	49.2042208	50.7957792
R2.0064	R2.0	64	0.5566711	82.5414629	48.5260449	51.4739551
R2.0065	R2.0	65	0.5691252	81.9847918	47.8521390	52.1476610
R2.0066	R2.0	66	0.5817490	81.4156666	47.1831479	52.8168521
R2.0067	R2.0	67	0.5945339	80.8339176	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	45.2061300	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	0.6743469	77.0696106	42.6417151	57.3582849
R2.0074	R2.0	74	0.6880913	76.3952637	42.0137038	57.9882962
R2.0075	R2.0	75	0.7019453	75.7071724	41.3910160	58.6089840
R2.0076	R2.0	76	0.7158861	75.0052271	40.7736988	59.2263012
R2.0077	R2.0	77	0.7299071	74.2893410	40.1617951	59.8382049
R2.0078	R2.0	78	0.7439918	73.5594339	39.5553460	60.4446540
R2.0079	R2.0	79	0.7581263	72.8154421	38.9543939	61.0456061
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	36.6083528	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	34.9049168	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

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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	0.9248881	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	68.8611980
R2.0094	R2.0	94	0.9628930	59.9750652	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	29.1166680	70.8833320
R2.0098	R2.0	98	1.0086742	56.0527921	28.6261051	71.3738949
R2.0099	R2.0	99	1.0190200	55.0441179	26.1415110	71.8584890
R2.0100	R2.0	100	1.0286558	54.0250979	27.6628840	72.3371160
R2.0101	R2.0	101	1.0381442	52.9962421	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	46.7939611	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	45.5693660	24.0469079	75.9530921
R2.0109	R2.0	109	1.0884819	44.4845238	23.6211450	76.3788550
R2.0110	R2.0	110	1.0912700	43.3960419	23.2010810	76.7989190
R2.0111	R2.0	111	1.0931697	42.3047719	22.7866659	77.2133341
R2.0112	R2.0	112	1.0941701	41.2116022	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	21.5766909	78.4233091
R2.0115	R2.0	115	1.0914621	37.9298739	21.1842289	78.8157711
R2.0116	R2.0	116	1.0885978	36.8384118	20.7970691	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	1.0669980	32.5113101	19.2996221	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	1.0400660	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	27.2660310	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	126	0.9755079	24.2544670	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	20.4496710	15.2338660	84.7661340
R2.0133	R2.0	133	0.8893190	19.5416160	14.9185150	85.0814850
R2.0134	R2.0	134	0.8699369	18.8522970	14.6059730	85.3940270

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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	17.7823601	14.2960570	85.7039430
R2.0136	R2.0	136	0.8294290	16.9324060	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	0.7430681	13.7423871	12.7792740	87.2207260
R2.0141	R2.0	141	0.7207061	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	10.2522670	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	10.1321560	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	6.3169220	9.2598670	90.7401331
R2.0153	R2.0	153	0.4519570	5.8434700	8.9696111	91.0303890
R2.0154	R2.0	154	0.4307510	5.3915130	8.6795980	91.3204020
R2.0155	R2.0	155	0.4098480	4.9607620	8.3898460	91.6101540
R2.0156	R2.0	156	0.3892590	4.5509140	8.1003940	91.8996060
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	3.4436060	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	2.5127360	6.3740460	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	94.4778080
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	95.8698760
R2.0171	R2.0	171	0.1221950	0.6851860	3.8568020	96.1431980
R2.0172	R2.0	172	0.1077830	0.5629910	3.5853840	96.4146180
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

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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

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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-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-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-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

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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	5.8883448
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	8.8128326
R3.0010	R3.0	10	0.0339584	99.7715473	90.2160540	9.7839460
R3.0011	R3.0	11	0.0364952	99.7375889	89.2465992	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	0.0481756	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	83.4735660	16.5264320
R3.0018	R3.0	18	0.0586998	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	79.6728288	20.3271732
R3.0022	R3.0	22	0.0753794	99.1613598	78.7294428	21.2705574
R3.0023	R3.0	23	0.0800638	99.0859804	77.7889566	22.2110434
R3.0024	R3.0	24	0.0849600	99.0059166	76.8514568	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	73.1330643	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	98.2955658	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	68.5628938	31.4373084
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	60.5633340	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

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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	95.3088226	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	94.4660692	53.7920389	46.2079611
R3.0051	R3.0	51	0.3177452	94.1609917	52.9847021	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	91.2324696	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	88.3808143	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	38.2608740	61.7393260
R3.0071	R3.0	71	0.6618805	84.8530436	37.5453868	62.4546132
R3.0072	R3.0	72	0.6845751	84.1911631	36.8368242	63.1633758
R3.0073	R3.0	73	0.7078876	83.5065880	36.1345072	63.8654928
R3.0074	R3.0	74	0.7317888	82.7987204	35.4391561	64.5608439
R3.0075	R3.0	75	0.7563066	82.0689338	34.7507062	65.2492938
R3.0076	R3.0	76	0.7814388	81.3108270	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	78.8885280	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	0.9442618	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

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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	24.7672109	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	1.4869881	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	81.8282120
R3.0105	R3.0	105	1.5277629	47.3174601	17.9445670	82.0554330
R3.0106	R3.0	106	1.5365224	45.7896972	17.5286011	82.4733989
R3.0107	R3.0	107	1.5428388	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	16.3270889	83.6729131
R3.0110	R3.0	110	1.5441080	39.6180120	15.9449101	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	31.9817879	14.1582340	85.8417680
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
R3.0116	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	24.7602689	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	11.9568110	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	1.0858789	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	0.9538992	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

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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	91.5591891
R3.0136	R3.0	136	0.8928700	7.8828390	8.1829081	91.8170919
R3.0137	R3.0	137	0.6518970	7.1699690	7.9253460	92.0746540
R3.0138	R3.0	138	0.8119650	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	5.6108530	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	0.4449460	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	2.8261500	97.3738500
R3.0159	R3.0	159	0.0553160	0.1916960	2.3902580	97.6097420
R3.0180	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

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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	1.9977369
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	99.9906445	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	99.9546289	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	99.9206057	80.0689449	19.9310551
R4.0021	R4.0	21	0.0125732	99.9093828	79.0778990	20.9221010
R4.0022	R4.0	22	0.0140372	99.8967896	78.0877886	21.9122114
R4.0023	R4.0	23	0.0156517	99.8827524	77.0986939	22.9013061
R4.0024	R4.0	24	0.0174217	99.8671007	76.1106977	23.8893023
R4.0025	R4.0	25	0.0193634	99.8496790	75.1238898	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	0.0263678	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	99.7295246	70.2111445	29.7888555
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	0.0870268	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	98.8584852	56.7557492	43.2442508

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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	98.7472877	55.8190970	44.1809030
R4.0046	R4.0	46	0.1301480	98.6268950	54.8866129	45.1133871
R4.0047	R4.0	47	0.1405508	98.4967470	53.9584770	46.0415230
R4.0048	R4.0	48	0.1518085	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	50.6106439
R4.0053	R4.0	53	0.2175588	97.4738528	48.4911060	51.5088940
R4.0054	R4.0	54	0.2328536	97.2560940	47.5984602	52.4015398
R4.0055	R4.0	55	0.2497578	97.0234404	46.7115922	53.2884078
R4.0056	R4.0	56	0.2665119	96.7738826	45.8306670	54.1693330
R4.0057	R4.0	57	0.2845173	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	56.7748289
R4.0060	R4.0	60	0.3438418	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	60.1563349
R4.0064	R4.0	64	0.4357090	94.0875311	39.0156770	60.9843230
R4.0065	R4.0	65	0.4609852	93.6518221	38.1948690	61.8051310
R4.0066	R4.0	66	0.4871807	93.1908369	37.3813329	62.6186671
R4.0067	R4.0	67	0.5142860	92.7036562	36.5751538	63.4248462
R4.0068	R4.0	68	0.5422850	92.1893702	35.7764020	64.2235980
R4.0069	R4.0	69	0.5711651	91.6470852	34.9851360	65.0148640
R4.0070	R4.0	70	0.6009006	91.0759201	34.2014031	65.7985969
R4.0071	R4.0	71	0.6314631	90.4750195	33.4252348	66.5747652
R4.0072	R4.0	72	0.6628237	89.8435564	32.6568491	67.3433509
R4.0073	R4.0	73	0.6949434	89.1807327	31.8956490	68.1043510
R4.0074	R4.0	74	0.7277765	86.4857893	31.1422219	68.8577781
R4.0075	R4.0	75	0.7612782	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	85.3712854	28.2033880	71.7966120
R4.0079	R4.0	79	0.9007826	84.5060616	27.4870250	72.5129750
R4.0080	R4.0	80	0.9366550	83.6053190	26.7777820	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	80.6868722	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	75.0316076	21.3579230	78.6420770
R4.0089	R4.0	89	1.3349047	73.7550545	20.7189319	79.2810681

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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	2.0473556	55.3800368	14.6343750	85.3656250
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	87.8896390
R4.0107	R4.0	107	2.1720638	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	90.5956620
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	17.1756680	7.9483430	92.0516570
R4.0120	R4.0	120	1.4376240	15.6585280	7.6700060	92.3299940
R4.0121	R4.0	121	1.3575180	14.2209040	7.3948390	92.6051810
R4.0122	R4.0	122	1.2773730	12.8633860	7.1224760	92.8775240
R4.0123	R4.0	123	1.1976880	11.5860130	6.8528120	93.1473880
R4.0124	R4.0	124	1.1188790	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

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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	66.6848450
R4.0138	R4.0	138	0.2377380	1.0314880	3.0849780	96.9150220
R4.0139	R4.0	139	0.1969280	0.7937500	2.8585810	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	0.0981870	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	1.7862840	98.2137160
R4.0145	R4.0	145	0.0362607	0.0852487	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	0.5292780	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

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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

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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

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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

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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	6.8976320	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	0.1523660	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	0.0316033	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

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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

Appendix A-5-1 (AUS)

VOLUME 11

PENNSYLVANIA-AMERICAN WATER COMPANY

2020 GENERAL BASE RATE CASE
R-2020-3019369 (WATER)
R-2020-3019371 (WASTEWATER)

EXHIBIT NO. 11-C, 11-D
DEPRECIATION STUDY

WATER OPERATIONS EXCLUDING STEELTON
AS OF DECEMBER 31, 2021, 2022

EXHIBIT NO. 11-C - DEPRECIATION STUDY

WATER OPERATIONS EXCLUDING STEELTON

AS OF DECEMBER 31, 2021

Exhibit No. 11-C
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WATER OPERATIONS EXCLUDING STEELTON

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

Prepared by:

Gannett Fleming

Excellence Delivered ***As Promised***

Exhibit No. 11-C
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER OPERATIONS EXCLUDING STEELTON

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

Excellence Delivered ***As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention: Ashley E. Everette
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant as of December 31, 2021. The results of our study at December 31, 2020 are presented in our report titled "2020 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2020". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

066548.100

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PENNSYLVANIA-AMERICAN WATER COMPANY

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DESCRIPTION OF SUMMARY TABULATIONS

Tables 1 through 5 presented on pages 3 through 13 summarize the results of the depreciation study as of December 31, 2021. Table 1 sets forth the development of the net original cost by account as of December 31, 2021. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2021, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to December 31, 2021. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2021. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2017 through 2021.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-8. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2017 through 2021, beginning on pages III-2 through III-6.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2021

	DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2021		CUSTOMER ADVANCES		CONTRIBUTIONS IN AID OF CONSTRUCTION		EXCLUDED PROPERTY		NET ORIGINAL COST AS OF DECMEBER 31, 2021
	(1)	(2)	-	(3)	-	(4)	-	(5)	=	(6)
INTANGIBLE PLANT										
301.00	ORGANIZATION	766,405.12								766,405.12
302.00	FRANCHISES AND CONSENTS	2,404,599.20								2,404,599.20
303.00	MISCELLANEOUS INTANGIBLE PLANT	1,453,020.77								1,453,020.77
	TOTAL INTANGIBLE PLANT	**4,624,025.09**		**0.00**		**0.00**		**0.00**		**4,624,025.09**
NONDEPRECIABLE PLANT										
303.20	POWER AND PUMPING LAND	4,315,318.23								4,315,318.23
303.30	PURIFICATION LAND	15,412.25								15,412.25
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	3,724,070.21				215,927.20				3,508,143.01
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPE LAND	2,001,789.51								2,001,789.51
303.51	TRANSMISSION AND DISTRIBUTION - LAND	1,762,423.06								1,762,423.06
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	5,288,947.81								5,288,947.81
303.61	OFFICE LAND	5,260,832.58								5,260,832.58
	TOTAL NONDEPRECIABLE PLANT	**22,368,793.65**		**0.00**		**215,927.20**		**0.00**		**22,152,866.45**
DEPRECIABLE PLANT										
303.14	WATER RIGHTS - HIBERNIA	1,942,822.51								1,942,822.51
303.35	WASTE HANDLING AND TREATMENT LAND	155,025.17								155,025.17
303.99	COMPREHENSIVE PLANNING STUDIES	9,710,061.35								9,710,061.35
304.15	OTHER WATER SOURCE STRUCTURES	44,248,707.65								44,248,707.65
304.20	POWER AND PUMPING STRUCTURES	121,818,280.30				1,289,607.60		41,310.00		120,487,362.70
304.30	PURIFICATION BUILDINGS	289,983,841.49				169,605.01		230,375.00		289,583,861.48
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	11,668,886.83								11,668,886.83
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	65,958.42								65,958.42
304.39	PURIFICATION BUILDINGS - TANK PAINTING	119,362.95								119,362.95
304.61	OFFICE BUILDINGS	44,005,306.44				60,000.00		12,834.00		43,932,472.44
304.62	STORES, SHOP AND GARAGE BUILDINGS	55,111,889.86				576.00				55,111,313.86
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	4,132,815.74								4,132,815.74
305.00	COLLECTING AND IMPOUNDING RESERVOIRS	135,672,663.72				3,575.00				135,669,088.72
306.00	LAKE, RIVER AND OTHER INTAKES	18,257,338.08				41,551.00				18,215,787.08
307.00	WELLS AND SPRINGS	10,694,793.00				71,610.27				10,623,182.73
310.00	POWER GENERATION EQUIPMENT	19,954,396.50				118,273.00		26,561.00		19,809,562.50
311.20	PUMPING EQUIPMENT - ELECTRIC PUMPING EQUIPMENT	25,829,705.97				1,954,569.05		116,716.00		23,758,420.92
311.50	PUMPING EQUIPMENT - OTHER	2,389,457.83								2,389,457.83
311.52	PUMPING EQUIPMENT - SOURCE OF SUPPLY	14,212,241.21								14,212,241.21
311.53	PUMPING EQUIPMENT - WATER TREATMENT	46,865,937.19								46,865,937.19
311.54	PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION	6,787,710.63								6,787,710.63
320.10	PURIFICATION SYSTEM - LARGE STRUCTURES	278,019,906.37				27,162.27		627,852.00		277,364,892.10
320.18	PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	103,245.73								103,245.73
320.19	PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	3,522,542.77								3,522,542.77
320.20	PURIFICATION SYSTEM - CHEMICAL TREATMENT	84,745,690.42				42,367.00				84,703,323.42
320.29	PURIFICATION SYSTEM - CHEM. TREATMENT PAINT	8,167.87								8,167.87
320.30	GRANULAR ACTIVATED CARBON	8,601,165.21								8,601,165.21
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	14,969,798.93								14,969,798.93
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	117,655,216.74				2,905,114.51				114,750,102.23

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2021

	DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2021		CUSTOMER ADVANCES		CONTRIBUTIONS IN AID OF CONSTRUCTION		EXCLUDED PROPERTY		NET ORIGINAL COST AS OF DECMEBER 31, 2021
	(1)	(2)	-	(3)	-	(4)	-	(5)	=	(6)
330.10	ELEVATED TANKS AND STANDPIPES	14,100,477.17								14,100,477.17
330.20	GROUND LEVEL FACILITIES	18,929,725.89								18,929,725.89
330.30	BELOW GRADE FACILITIES	818,672.56								818,672.56
330.40	CLEARWELL	12,806,094.73								12,806,094.73
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,211,111.35								2,211,111.35
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	34,570,376.62								34,570,376.62
331.00	MAINS AND ACCESSORIES	3,064,685,925.46		63,514,361.86		200,747,868.78		502,366.00		2,799,921,328.82
333.00	SERVICES	649,550,756.85		5,782,801.70		11,851,183.63				631,916,771.52
334.00	METERS AND METER INSTALLATIONS	207,962,808.09				1,707,754.19				206,255,053.90
335.00	FIRE HYDRANTS	127,625,861.91		71,848.81		4,768,402.44				122,785,610.66
340.10	OFFICE FURNITURE AND EQUIPMENT - FURNITURE	7,475,864.68								7,475,864.68
340.20	OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL EQUIPMENT	24,511,435.46								24,511,435.46
340.30	OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE	45,994,769.94								45,994,769.94
340.31	OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	62,990,459.09								62,990,459.09
340.50	OFFICE FURNITURE AND EQUIPMENT - OTHER OFFICE EQUIPMENT	7,644.67				354.00				7,290.67
341.00	TRANSPORTATION EQUIPMENT - NOT CLASSIFIED	349.00								349.00
341.10	TRANSPORTATION EQUIPMENT - LIGHT DUTY TRUCKS	28,802,310.96								28,802,310.96
341.20	TRANSPORTATION EQUIPMENT - EQUIPMENT	23,205,811.64								23,205,811.64
341.30	TRANSPORTATION EQUIPMENT - AUTOS	3,874,730.49								3,874,730.49
341.40	TRANSPORTATION EQUIPMENT - OTHER	10,439,225.68								10,439,225.68
342.00	STORES EQUIPMENT	448,033.65								448,033.65
343.00	TOOLS AND WORK EQUIPMENT	32,097,198.82				61.00				32,097,137.82
344.00	LABORATORY EQUIPMENT	2,606,821.35								2,606,821.35
345.00	POWER OPERATED EQUIPMENT	2,405,805.64								2,405,805.64
346.00	COMMUNICATOIN EQUIPMENT - EQUIPMENT	3,459,420.00								3,459,420.00
346.10	COMMUNICATOIN EQUIPMENT - NON-TELEPHONE	6,770,729.39								6,770,729.39
346.19	COMMUNICATOIN EQUIPMENT - REMOTE CONTROL AND INSTRUMENTATION	2,790,901.75								2,790,901.75
346.20	COMMUNICATOIN EQUIPMENT - TELEPHONE	188,390.60								188,390.60
347.00	MISCELLANEOUS EQUIPMENT	11,608,430.21				4,085.00				11,604,345.21
348.00	OTHER TANGIBLE EQUIPMENT	793,796.73								793,796.73
	TOTAL DEPRECIABLE PLANT	**5,774,986,877.26**		**69,369,012.37**		**225,763,719.75**		**1,558,014.00**		**5,478,296,131.14**
	TOTAL UTILITY PLANT IN SERVICE	**5,801,979,696.00**		**69,369,012.37**		**225,979,646.95**		**1,558,014.00**		**5,505,073,022.68**

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DECEMBER 31, 2021

	DEPRECIABLE GROUP		SURVIVOR CURVE		NET ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)		(2)		(3)	(4)	(5)	(6)	(7)	(8)
INTANGIBLE PLANT										
301.00	ORGANIZATION		NONDEPR.		766,405.12					
302.00	FRANCHISES AND CONSENTS		NONDEPR.		2,404,599.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT		NONDEPR.		1,453,020.77					
	TOTAL INTANGIBLE PLANT				**4,624,025.09**					
NONDEPRECIABLE PLANT										
303.20	POWER AND PUMPING LAND		NONDEPR.		4,315,318.23					
303.30	PURIFICATION LAND		NONDEPR.		15,412.25					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY		NONDEPR.		3,508,143.01					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND		NONDEPR.		2,001,789.51					
303.51	TRANSMISSION AND DISTRIBUTION - LAND		NONDEPR.		1,762,423.06					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY		NONDEPR.		5,288,947.81					
303.61	OFFICE LAND		NONDEPR.		5,260,832.58					
	TOTAL NONDEPRECIABLE PLANT				**22,152,866.45**					
DEPRECIABLE PLANT										
303.14	WATER RIGHTS - HIBERNIA		25-SQ		1,942,822.51	1,942,823	0	0	-	-
303.35	WASTE HANDLING AND TREATMENT LAND	*	100-R2		155,025.17	150,407	4,618	4,618	2.98	1.0
303.99	COMPREHENSIVE PLANNING STUDIES		5-SQ		9,710,061.35	7,494,569	2,215,492	751,049	7.73	2.9
304.15	OTHER WATER SOURCE STRUCTURES		60-R1.5		44,248,707.65	8,283,077	35,965,631	970,351	2.19	37.1
304.20	POWER AND PUMING STRUCTURES									
	LARGE STRUCTURES	*	70-R2.5		69,567,251.92	9,280,689	60,286,563	1,787,063	2.57	33.7
	OTHER STRUCTURES		55-R3		50,920,110.78	9,270,044	41,650,067	1,298,796	2.55	32.1
	TOTAL ACCOUNT 304.2				120,487,362.70	18,550,733	101,936,630	3,085,859	2.56	33.0
304.30	PURIFICATION BUILDINGS									
	LARGE STRUCTURES	*	60-R2.5		248,267,049.87	78,898,085	169,368,965	5,619,625	2.26	30.1
	OTHER STRUCTURES		60-R3		41,316,811.61	12,978,751	28,338,061	730,378	1.77	38.8
	TOTAL ACCOUNT 304.3				289,583,861.48	91,876,836	197,707,026	6,350,003	2.19	31.1
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	*	60-S2.5		11,668,886.83	6,315,009	5,353,878	309,282	2.65	17.3
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING		10-SQ		65,958.42	57,775	8,183	2,338	3.54	3.5
304.39	PURIFICATION BUILDINGS - TANK PAINTING		10-SQ		119,362.95	107,705	11,658	3,331	2.79	3.5
304.61	OFFICE BUILDINGS									
	LARGE STRUCTURES	*	50-R1.5		31,024,747.89	5,523,525	25,501,224	970,539	3.13	26.3
	OTHER STRUCTURES		50-R3		12,907,724.55	3,482,369	9,425,356	295,081	2.29	31.9
	TOTAL ACCOUNT 304.61				43,932,472.44	9,005,894	34,926,580	1,265,620	2.88	27.6

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DECEMBER 31, 2021

	DEPRECIABLE GROUP	SURVIVOR CURVE		NET ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)
304.62	STORES, SHOP AND GARAGE BUILDINGS								
	LARGE STRUCTURES	55-S0.5	*	48,973,108.70	11,428,586	37,544,523	1,323,667	2.70	28.4
	OTHER STRUCTURES	45-R3		6,138,205.16	3,952,462	2,185,743	82,351	1.34	26.5
	TOTAL ACCOUNT 304.62			55,111,313.86	15,381,048	39,730,266	1,406,018	2.55	28.3
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	35-S0.5		4,132,815.74	2,198,599	1,934,217	86,804	2.10	22.3
	TOTAL ACCOUNT 304			569,350,742.07	151,776,676	417,574,069	13,479,606	2.37	31.0
305.00	COLLECTING AND IMPOUNDING RESERVOIRS								
	LARGE RESERVOIRS	125-R2	*	128,044,777.60	18,481,585	109,563,192	1,809,335	1.41	60.6
	OTHER RESERVOIRS	75-R3		7,624,311.12	2,729,327	4,894,984	215,147	2.82	22.8
	TOTAL ACCOUNT 305			135,669,088.72	21,210,912	114,458,176	2,024,482	1.49	56.5
306.00	LAKE, RIVER AND OTHER INTAKES								
	LARGE INTAKES	55-S1	*	14,029,064.70	4,448,923	9,580,142	336,818	2.40	28.4
	OTHER INTAKES	50-S0.5		4,186,722.38	1,524,770	2,661,952	110,315	2.63	24.1
	TOTAL ACCOUNT 306			18,215,787.08	5,973,693	12,242,094	447,133	2.45	27.4
307.00	WELLS AND SPRINGS	55-S0		10,623,182.73	3,343,133	7,280,050	246,499	2.32	29.5
310.00	POWER GENERATION EQUIPMENT	43-S1		19,809,562.50	5,157,558	14,652,004	541,291	2.73	27.1
	PUMPING EQUIPMENT								
311.20	ELECTRIC	42-S0		23,758,420.92	4,483,984	19,274,437	769,961	3.24	25.0
311.50	OTHER	42-S0		2,389,457.83	559,308	1,830,150	74,670	3.12	24.5
311.52	SOURCE OF SUPPLY	42-S0		14,212,241.21	2,191,102	12,021,139	477,564	3.36	25.2
311.53	WATER TREATMENT	42-S0		46,865,937.19	18,885,547	27,980,390	1,331,345	2.84	21.0
311.54	TRANSMISSION AND DISTRIBUTION	42-S0		6,787,710.63	2,125,816	4,661,895	197,458	2.91	23.6
	TOTAL ACCOUNT 311			94,013,767.78	28,245,757	65,768,011	2,850,998	3.03	23.1
	PURIFICATION SYSTEM								
320.10	LARGE STRUCTURES								
	LARGE STRUCTURES	60-S0.5	*	255,675,564.06	73,452,571	182,222,993	7,332,914	2.87	24.9
	OTHER STRUCTURES	55-R3		21,689,328.04	3,259,936	18,429,392	451,433	2.08	40.8
	TOTAL ACCOUNT 320.1			277,364,892.10	76,712,507	200,652,385	7,784,347	2.81	25.8
320.18	LARGE STRUCTURES PAINT	10-SQ		103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ		3,522,542.77	3,513,661	8,882	2,537	0.07	3.5
320.20	CHEMICAL TREATMENT	36-R0.5		84,703,323.42	32,767,124	51,936,199	2,724,881	3.22	19.1
320.29	CHEMICAL TREATMENT PAINT	FULLY ACCRUED		8,167.87	8,168	0	0	-	-
320.30	GRANULAR ACTIVATED CARBON	7-L2		8,601,165.21	6,864,049	1,737,116	577,102	6.71	3.0
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3		14,969,798.93	10,336,097	4,633,702	255,895	1.71	18.1
	TOTAL ACCOUNT 320			389,273,136.03	130,304,852	258,968,284	11,344,762	2.91	22.8

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DECEMBER 31, 2021

	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	114,750,102.23	37,604,850	77,145,252	2,040,752	1.78	37.8
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	14,100,477.17	1,396,944	12,703,533	302,304	2.14	42.0
330.20	GROUND LEVEL FACILITIES	65-S0.5	18,929,725.89	1,478,786	17,450,940	411,613	2.17	42.4
330.30	BELOW GRADE FACILITIES	65-S0.5	818,672.56	134,722	683,951	16,514	2.02	41.4
330.40	CLEARWELL	65-S0.5	12,806,094.73	2,241,101	10,564,994	256,016	2.00	41.3
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,211,111.35	2,124,822	86,289	24,654	1.12	3.5
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	34,570,376.62	22,983,972	11,586,405	2,403,686	6.95	4.8
	TOTAL ACCOUNT 330		198,186,560.55	67,965,197	130,221,364	5,455,539	2.75	23.9
331.00	MAINS AND ACCESSORIES	110-R2	2,799,921,328.82	327,632,397	2,472,288,932	33,559,667	1.20	73.7
333.00	SERVICES	70-R2.5	631,916,771.52	153,302,150	478,614,622	10,466,170	1.66	45.7
334.00	METERS AND METER INSTALLATIONS	21-L1	206,255,053.90	85,792,067	120,462,987	10,770,670	5.22	11.2
335.00	FIRE HYDRANTS	75-R2.5	122,785,610.66	21,454,868	101,330,743	1,959,904	1.60	51.7
340.00	OFFICE FURNITURE AND EQUIPMENT							
	FURNITURE	20-SQ	7,475,864.68	1,347,541	6,128,324	386,093	5.16	15.9
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	24,511,435.46	5,940,437	18,570,998	5,214,238	21.27	3.6
	COMPUTER SOFTWARE	5-SQ	45,994,769.94	21,924,860	24,069,910	8,444,686	18.36	2.9
	COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	10-SQ	62,990,459.09	52,072,253	10,918,206	8,099,503	12.86	1.3
	OTHER OFFICE EQUIPMENT	10-SQ	7,290.67	1,744	5,547	740	10.15	7.5
	TOTAL ACCOUNT 340		140,979,819.84	81,286,835	59,692,985	22,145,260	15.71	2.7
341.00	TRANSPORATION EQUIPMENT							
	NOT CLASSIFIED	7-L3	349.00	349	0	0	-	-
	LIGHT DUTY TRUCKS	7-L3	28,802,310.96	17,540,380	11,261,931	2,978,791	10.34	3.8
	EQUIPMENT	7-L3	23,205,811.64	13,407,514	9,798,298	2,686,946	11.58	3.6
	AUTOS	7-L3	3,874,730.49	2,379,267	1,495,463	347,892	8.98	4.3
	OTHER	7-L3	10,439,225.68	5,565,457	4,873,769	1,261,319	12.08	3.9
	TOTAL ACCOUNT 341		66,322,427.77	38,892,967	27,429,461	7,274,948	10.97	3.8
342.00	STORES EQUIPMENT	20-SQ	448,033.65	97,064	350,970	26,762	5.97	13.1
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	32,097,137.82	7,101,221	24,995,917	1,893,452	5.90	13.2
344.00	LABORATORY EQUIPMENT	20-L0.5	2,606,821.35	1,152,886	1,453,935	152,376	5.85	9.5
345.00	POWER OPERATED EQUIPMENT	19-S0.5	2,405,805.64	1,655,168	750,638	98,401	4.09	7.6
346.00	COMUNICATION EQUIPMENT							
	EQUIPMENT	15-SQ	3,459,420.00	476,123	2,983,297	226,521	6.55	13.2
	NON-TELEPHONE	15-SQ	6,770,729.39	1,148,483	5,622,246	452,423	6.68	12.4
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	2,790,901.75	1,618,957	1,171,945	256,489	9.19	4.6
	TELEPHONE	10-SQ	188,390.60	121,502	66,889	17,853	9.48	3.7
	TOTAL ACCOUNT 346		13,209,441.74	3,365,065	9,844,377	953,286	7.22	10.3

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DECEMBER 31, 2021

	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	11,604,345.21	2,121,851	9,482,494	803,731	6.93	11.8
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	793,796.73	433,683	360,114	31,961	4.03	11.3
	TOTAL DEPRECIABLE PLANT		**5,478,296,131.14**	**1,147,853,799**	**4,330,442,337**	**127,282,565**	**2.32**	
	AMORTIZATION OF NET SALVAGE					**18,150,547**		
	TOTAL UTILITY PLANT IN SERVICE		**5,505,073,022.68**	**1,147,853,799**	**4,330,442,337**	**145,433,112**		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2021, OF BOOK RESERVE AS OF DECEMBER 31, 2020

Account	BOOK RESERVE BALANCE AS OF 12/31/2020		PROJECTED DEPRECIATION ACCRUALS		PROJECTED RETIREMENTS		PROJECTED COST OF REMOVAL		PROJECTED SALVAGE		ACQUISITIONS		PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2021
(1)	(2)	+	(3)	-	(4)	-	(5)	+	(6)	+	(7)	=	(8)
303.14	1,942,823		0										1,942,823
303.35	141,137		9,270										150,407
303.99	6,351,030		1,204,524		60,985								7,494,569
304.15	7,899,182		1,048,120		390,721		285,226		11,722				8,283,077
304.20	16,349,816		2,976,022		674,004		121,321		20,220				18,550,733
304.30	88,458,520		6,134,387		2,425,064		315,258		24,251				91,876,836
304.36	5,992,818		322,191										6,315,009
304.38	55,437		2,338										57,775
304.39	104,374		3,331										107,705
304.61	7,849,697		1,216,908		55,698		5,013						9,005,894
304.62	13,999,901		1,402,722		23,709		3,319		5,453				15,381,048
304.63	2,130,689		84,121		14,220		2,844		853				2,198,599
305.00	18,943,519		2,267,393										21,210,912
306.00	5,508,799		464,894										5,973,693
307.00	3,088,287		259,686		4,840								3,343,133
310.00	4,866,142		517,290		179,265		46,609						5,157,558
311.20	3,771,805		1,021,432		264,319		44,934						4,483,984
311.50	481,982		77,326										559,308
311.52	1,945,471		445,658		170,963		29,064						2,191,102
311.53	18,177,110		1,212,264		430,621		73,206						18,885,547
311.54	1,921,773		204,043										2,125,816
320.10	76,059,881		6,303,140		5,000,455		650,059						76,712,507
320.18	103,246		0										103,246
320.19	3,511,123		2,538										3,513,661
320.20	30,554,763		2,678,001		412,071		53,569						32,767,124
320.29	8,168		0										8,168
320.30	5,943,551		920,498										6,864,049
320.37	10,000,742		335,355										10,336,097
330.00	35,124,500		3,507,933		642,239		385,344						37,604,850
330.10	1,540,919		243,438		242,133		145,280						1,396,944
330.20	1,787,324		345,686		408,890		245,334						1,478,786
330.30	117,944		16,778										134,722

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2021, OF BOOK RESERVE AS OF DECEMBER 31, 2020

Account	BOOK RESERVE BALANCE AS OF 12/31/2020		PROJECTED DEPRECIATION ACCRUALS		PROJECTED RETIREMENTS		PROJECTED COST OF REMOVAL		PROJECTED SALVAGE		ACQUISITIONS		PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2021
(1)	(2)	+	(3)	-	(4)	-	(5)	+	(6)	+	(7)	=	(8)
330.40	1,980,284		260,817										2,241,101
330.58	2,100,168		24,654										2,124,822
330.59	20,863,908		2,449,147		329,083								22,983,972
331.00	302,790,062		45,553,978		10,787,314		9,924,329						327,632,397
333.00	144,244,631		11,456,303		1,654,334		744,450						153,302,150
334.00	74,409,987		12,124,741		663,090		86,202		6,631				85,792,067
335.00	20,020,642		2,278,774		620,991		223,557						21,454,868
340.10	971,125		376,416										1,347,541
340.20	7,343,075		4,532,973		5,935,611								5,940,437
340.30	17,701,446		10,353,824		6,130,410								21,924,860
340.31	41,731,922		10,340,331										52,072,253
340.40	1,004		740										1,744
341.00	349		0										349
341.10	14,623,372		3,145,900		238,429		4,769		14,306				17,540,380
341.20	11,191,984		2,532,823		330,514		6,610		19,831				13,407,514
341.30	2,126,610		307,184		56,799		1,136		3,408				2,379,267
341.40	4,729,807		1,013,708		185,477		3,710		11,129				5,565,457
342.00	68,032		29,032										97,064
343.00	5,263,107		1,838,114										7,101,221
344.00	978,341		174,545										1,152,886
345.00	1,541,860		113,308										1,655,168
346.00	407,979		212,013		143,869								476,123
346.10	797,215		351,268										1,148,483
346.19	1,556,269		283,385		220,697								1,618,957
346.20	608,614		39,337		526,449								121,502
347.00	1,328,449		848,537		55,135								2,121,851
348.00	401,551		32,132										433,683
TOTAL	**1,054,514,266**		**145,901,271**		**39,278,399**		**13,401,143**		**117,804**		**0**		**1,147,853,799**

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2021

ACCOUNT (1)	NET ORIGINALCOST AS OF 12/31/2020 (2)	NET ORIGINALCOST AS OF 12/31/2021 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
303.14	1,942,822.51	1,942,822.51	0.00	(487)	487	0
303.35	155,025.17	155,025.17	5.98	9,270		9,270
303.99	8,413,546.31	9,710,061.35	13.83	1,203,911	613	1,204,524
304.15	40,603,116.18	44,248,707.65	2.14	906,382	141,738	1,048,120
304.20	110,059,548.11	120,487,362.70	2.56	2,930,331	45,691	2,976,022
304.30	266,957,000.42	289,583,861.48	2.15	5,850,996	283,391	6,134,387
304.36	11,668,886.83	11,668,886.83	2.69	313,454	8,737	322,191
304.38	65,958.42	65,958.42	3.54	2,338		2,338
304.39	119,362.95	119,362.95	2.79	3,331		3,331
304.61	43,412,787.39	43,932,472.44	2.97	1,298,373	(81,465)	1,216,908
304.62	54,890,101.85	55,111,313.86	2.58	1,418,230	(15,508)	1,402,722
304.63	4,000,139.23	4,132,815.74	2.06	83,448	673	84,121
305.00	135,669,088.72	135,669,088.72	1.47	1,996,136	271,257	2,267,393
306.00	18,215,787.08	18,215,787.08	2.51	456,818	8,076	464,894
307.00	9,898,022.81	10,623,182.73	2.34	235,405	24,281	259,686
310.00	18,136,948.65	19,809,562.50	2.71	495,783	21,507	517,290
311.20	21,292,217.56	23,758,420.92	3.28	725,917	295,515	1,021,432
311.50	2,389,457.83	2,389,457.83	3.24	77,326		77,326
311.52	12,617,080.84	14,212,241.21	3.35	445,658		445,658
311.53	42,848,060.38	46,865,937.19	2.80	1,212,264		1,212,264
311.54	6,787,710.63	6,787,710.63	3.01	204,043		204,043
320.10	225,716,944.63	277,364,892.10	2.44	5,905,753	397,387	6,303,140
320.18	103,245.73	103,245.73	0.00	0		0
320.19	3,522,542.77	3,522,542.77	0.07	2,538		2,538
320.20	80,858,527.99	84,703,323.42	3.26	2,678,001		2,678,001
320.29	8,167.87	8,167.87	0.00	0		0
320.30	8,601,165.21	8,601,165.21	9.68	832,282	88,216	920,498
320.37	14,969,798.93	14,969,798.93	1.81	271,256	64,099	335,355
330.00	106,929,232.38	114,750,102.23	1.80	1,970,376	1,537,557	3,507,933
330.10	10,930,110.10	14,100,477.17	2.06	243,438		243,438
330.20	15,192,040.47	18,929,725.89	2.09	345,686		345,686
330.30	818,672.56	818,672.56	2.05	16,778		16,778

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2021

ACCOUNT	NET ORIGINALCOST AS OF 12/31/2020	NET ORIGINALCOST AS OF 12/31/2021	ACCRUAL RATE	AVERAGE ACCRUALS	AMORTIZATION OF NET SALVAGE	PROJECTED DEPRECIATION ACCRUALS
(1)	(2)	(3)	(4)	(5)*	(6)	(7)=(5)+(6)
330.40	12,806,094.73	12,806,094.73	2.04	260,817		260,817
330.58	2,211,111.35	2,211,111.35	1.12	24,654		24,654
330.59	29,919,635.20	34,570,376.62	7.86	2,449,147		2,449,147
331.00	2,675,857,649.51	2,799,921,328.82	1.21	32,758,152	12,795,826	45,553,978
333.00	604,695,086.73	631,916,771.52	1.66	10,245,705	1,210,598	11,456,303
334.00	196,137,446.01	206,255,053.90	5.51	11,091,554	1,033,187	12,124,741
335.00	115,429,813.60	122,785,610.66	1.60	1,894,800	383,974	2,278,774
340.10	5,339,828.99	7,475,864.68	5.31	340,079	36,337	376,416
340.20	19,364,761.45	24,511,435.46	21.66	4,532,973		4,532,973
340.30	42,907,597.73	45,994,769.94	21.25	10,353,824		10,353,824
340.31	62,990,459.09	62,990,459.09	16.42	10,340,331		10,340,331
340.50	7,290.67	7,290.67	10.15	740		740
341.00	349.00	349.00	0.00	0		0
341.10	26,577,670.21	28,802,310.96	11.00	3,063,529	82,371	3,145,900
341.20	20,121,976.99	23,205,811.64	11.93	2,532,823		2,532,823
341.30	3,344,774.93	3,874,730.49	8.40	307,184		307,184
341.40	8,708,645.51	10,439,225.68	11.54	1,013,708		1,013,708
342.00	448,033.65	448,033.65	6.04	27,046	1,986	29,032
343.00	29,078,050.31	32,097,137.82	5.99	1,829,220	8,894	1,838,114
344.00	2,606,821.35	2,606,821.35	6.50	169,353	5,192	174,545
345.00	2,405,805.64	2,405,805.64	4.67	112,304	1,004	113,308
346.00	2,539,854.88	3,459,420.00	6.19	188,316	23,697	212,013
346.10	4,581,387.28	6,770,729.39	6.62	351,268		351,268
346.19	3,011,599.18	2,790,901.75	9.44	283,385		283,385
346.20	714,839.66	188,390.60	5.68	39,337		39,337
347.00	11,260,526.60	11,604,345.21	7.24	827,967	20,570	848,537
348.00	793,796.73	793,796.73	4.03	31,976	156	32,132
TOTAL	**5,161,654,025.49**	**5,478,296,131.14**		**127,205,227**	**18,696,044**	**145,901,271**

* Annual Accrual developed based on monthly averages.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER OPERATIONS EXCLUDING STEELTON

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

	2017		2018		2019		PROJECTED 2020		PROJECTED 2021			
ACCOUNT	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2)	- (3) +	(4)	- (5) +	(6)	- (7) +	(8)	- (9) +	(10)	- (11) =	(12)*	(13)=(12)/5
303.14				2,459.00							(2,459.00)	(492)
303.20		2,459.00		(2,459.00)							0.00	0
303.99						3,062.78					(3,062.78)	(613)
304.15		68,090.61	1,582.30	180,812.86	27,560.73	387,837.75	1,329.00	32,333.00	11,722.00	285,226.00	(912,106.19)	(182,421)
304.20		38,831.70	13,853.00	39,684.28	31,830.10	147,277.43	4,421.00	26,528.00	20,220.00	121,321.00	(303,318.31)	(60,664)
304.30		36,848.82	14,493.83	1,091,908.37	66,260.61	148,391.82	2,461.00	31,989.00	24,251.00	315,258.00	(1,516,929.57)	(303,386)
304.36				43,138.55		546.00					(43,684.55)	(8,737)
304.61		71,906.49			1,864,549.94	1,304,656.48		9,724.00		5,013.00	473,249.97	94,650
304.62		10,015.90	729.22	6,567.28	192,159.79	54,481.40	9,550.00	5,813.00	5,453.00	3,319.00	127,695.43	25,539
304.63		2,051.43		3,068.49	25,209.50	8,030.27	1,607.00	5,357.00	853.00	2,844.00	6,318.31	1,264
305.00		5,620.91				1,266,548.34					(1,272,169.25)	(254,434)
306.00		16,836.83				17,003.99					(33,840.82)	(6,768)
307.00		618.42		1,391.04		118,341.25					(120,350.71)	(24,070)
310.00		2,903.30		11,634.03		42,462.99		4,760.00		46,609.00	(108,369.32)	(21,674)
311.00	880.05	72,179.55		191,399.40	13,739.63	1,092,490.18		33,004.00		147,204.00	(1,521,657.45)	(304,331)
320.00	3.44	115,579.33	512.50	619,426.48	229.83	924,729.91		225,992.00		703,628.00	(2,588,609.95)	(517,722)
320.30		1,622.00				423,003.27					(424,625.27)	(84,925)
320.37		7,150.00		29,963.00	23.00	90,807.00					(127,897.00)	(25,579)
330.00		645,827.57	162.78	2,820,506.21		2,686,207.69		165,227.00		775,958.00	(7,093,563.69)	(1,418,713)
331.00	107,310.05	7,290,999.85	25,598.82	11,746,655.36	13,124.96	21,381,790.52		12,141,393.00		9,924,329.00	(62,339,133.90)	(12,467,827)
333.00	2,339.38	1,164,164.90	(214.01)	1,300,493.65	9,792.38	1,897,743.49		714,893.00		744,450.00	(5,809,827.29)	(1,161,965)
334.00	98,185.09	960,401.22	115,629.32	913,142.15	93,029.52	2,727,391.38	8,480.00	110,240.00	6,631.00	86,202.00	(4,475,421.82)	(895,084)
335.00	248.83	227,143.79	2,311.49	309,652.61	4,063.03	908,970.88		204,109.00		223,557.00	(1,866,809.93)	(373,362)
340.00		6,364.74	8,779.58	30,861.14	10,745.87	122,477.36					(140,177.79)	(28,036)
341.00		1,430.78	205,163.90	148,702.02	261,902.01	761,298.60	50,503.00	16,835.00	48,674.00	16,225.00	(378,248.49)	(75,650)
342.00				245.80		9,682.12					(9,927.92)	(1,986)
343.00		8,345.37		7,924.48	48,579.17	57,836.24					(25,526.92)	(5,105)
344.00		1,202.11		4,823.99		14,919.23					(20,945.33)	(4,189)
345.00		98.42		860.13	12,288.18	15,876.66					(4,547.03)	(909)
346.00		646.24	132.58	30,002.27		87,193.50					(117,709.43)	(23,542)
347.00		12,915.37		20,027.66	8,306.50	73,665.55					(98,302.08)	(19,660)
348.00				(29.21)		808.08					(778.87)	(156)
TOTAL	208,966.84	10,772,254.65	388,735.31	19,552,862.04	2,683,394.75	36,775,532.16	78,351.00	13,728,197.00	117,804.00	13,401,143.00	(90,752,736.95)	(18,150,547)

ımmation of Columns (2) through (11).

Exhibit No. 11-L
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

Prepared by:

Gannett Fleming

Excellence Delivered ***As Promised***

Exhibit No. 11-L
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF DECEMBER 31, 2022

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

Excellence Delivered ***As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2022. The results of our study at December 31, 2020 are presented in our report titled "2020 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of December 31, 2020". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

066548.100

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PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

DEPRECIATION STUDY

PART I. RESULTS OF STUDY

SUMMARY OF RESULTS

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of December 31, 2022. Table 1 sets forth the development of the net original cost by account as of December 31, 2022. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2022, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to December 31, 2022. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2022. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2018 through 2022.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-7. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2018 through 2022, beginning on pages III-2 through III-4.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2022

DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2022	- CUSTOMER ADVANCES	- CONTRIBUTIONS IN AID OF CONSTRUCTION	- EXCLUDED PROPERTY	= NET ORIGINAL COST AS OF DECMEBER 31, 2022
(1)	(2)	(3)	(4)	(5)	(6)
DEPRECIABLE PLANT					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,372,711.27				1,372,711.27
354.30 STRUCTURES AND IMPROVEMENTS - SPP	17,988,212.97		2,734,528.70		15,253,684.27
354.40 STRUCTURES AND IMPROVEMENTS - TDP	55,042,602.26		1,853,012.73		53,189,589.53
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	3,153,826.87				3,153,826.87
355.00 POWER GENERATION EQUIPMENT	4,180,589.06		144,517.16		4,036,071.90
360.10 COLLECTION SEWERS - FORCE MAINS	50,575,251.29	157,753.14	11,251,126.61		39,166,371.54
361.10 COLLECTION SEWERS - GRAVITY MAINS	120,095,333.20	133,423.53	13,295,536.11		106,666,373.56
361.20 MANHOLES	17,657,269.96		4,387,312.76		13,269,957.20
363.00 SERVICES	24,656,795.81	70,197.45	3,753,803.46		20,832,794.90
364.00 FLOW MEASURING DEVICES	371,151.65		14,726.81		356,424.84
365.00 FLOW MEASURING INSTALLATIONS	14,938.00				14,938.00
370.00 RECEIVING WELLS	143,419.77				143,419.77
371.00 PUMPING EQUIPMENT	13,374,027.20		66,626.22		13,307,400.98
380.00 TREATMENT EQUIPMENT	67,907,787.21		2,200,080.47		65,707,706.74
381.00 PLANT SEWERS	6,212,540.44		30,192.33		6,182,348.11
382.00 OUTFALL SEWER LINES	604,388.91				604,388.91
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	582,205.16				582,205.16
389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	1,707,500.00				1,707,500.00
390.00 OFFICE FURNITURE AND EQUIPMENT	168,706.08				168,706.08
391.00 TRANSPORTATION EQUIPMENT	3,034,840.81				3,034,840.81
392.00 STORES EQUIPMENT	107,351.44				107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,505,097.79				1,505,097.79
394.00 LABORATORY EQUIPMENT	729,305.71				729,305.71
395.00 POWER OPERATED EQUIPMENT	917,645.43		10,000.00		907,645.43
396.00 COMMUNICATION EQUIPMENT	1,744,213.66				1,744,213.66
397.00 MISCELLANEOUS EQUIPMENT	661,593.59		29,000.00		632,593.59
398.00 OTHER TANGIBLE PLANT	14,231.50				14,231.50
TOTAL DEPRECIABLE PLANT	**394,523,537.04**	**361,374.12**	**39,770,463.36**	**0.00**	**354,391,699.56**
NONDEPRECIABLE PLANT					
352.10 FRANCHISES	221,139.78				221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20				1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07				85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,717,020.09		125,000.00		1,592,020.09
TOTAL NONDEPRECIABLE PLANT	**3,117,203.14**	**0.00**	**125,000.00**	**0.00**	**2,992,203.14**
TOTAL UTILITY PLANT	**397,640,740.18**	**361,374.12**	**39,895,463.36**	**0.00**	**357,383,902.70**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2022	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	1,372,711.27	97,323	1,275,388	38,320	2.79	33.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	15,253,684.27	5,449,788	9,803,896	300,957	1.97	32.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	53,189,589.53	13,447,768	39,741,821	1,254,377	2.36	31.7
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	3,153,826.87	1,687,584	1,466,242	63,310	2.01	23.2
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,036,071.90	2,807,978	1,228,094	63,471	1.57	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	39,166,371.54	3,526,886	35,639,485	678,631	1.73	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	106,666,373.56	13,972,547	92,693,827	1,691,826	1.59	54.8
361.20	MANHOLES	50-S2.5	13,269,957.20	2,036,681	11,233,276	348,535	2.63	32.2
363.00	SERVICES	47-R3	20,832,794.90	4,780,861	16,051,934	531,451	2.55	30.2
364.00	FLOW MEASURING DEVICES	15-L2.5	356,424.84	170,648	185,777	36,426	10.22	5.1
365.00	FLOW MEASURING INSTALLATIONS	25-S2	14,938.00	2,513	12,425	1,154	7.73	10.8
370.00	RECEIVING WELLS	50-R3	143,419.77	34,923	108,497	3,219	2.24	33.7
371.00	PUMPING EQUIPMENT	30-S0.5	13,307,400.98	2,331,656	10,975,745	602,548	4.53	18.2
380.00	TREATMENT EQUIPMENT	35-S1.5	65,707,706.74	18,480,154	47,227,552	2,355,132	3.58	20.1
381.00	PLANT SEWERS	50-R3	6,182,348.11	1,591,522	4,590,827	140,418	2.27	32.7
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	244,690	359,698	12,727	2.11	28.3
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	582,205.16	231,563	350,642	31,102	5.34	11.3
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	5-SQ	1,707,500.00	457,989	1,249,511	357,607	20.94	3.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	168,706.08	37,591	131,115	13,043	7.73	10.1
391.00	TRANSPORTATION EQUIPMENT	14-L4	3,034,840.81	718,213	2,316,627	235,403	7.76	9.8
392.00	STORES EQUIPMENT	25-SQ	107,351.44	33,748	73,604	4,273	3.98	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,505,097.79	299,112	1,205,986	78,428	5.21	15.4
394.00	LABORATORY EQUIPMENT	15-SQ	729,305.71	275,058	454,248	43,556	5.97	10.4
395.00	POWER OPERATED EQUIPMENT	22-R2	907,645.43	389,500	518,146	39,364	4.34	13.2
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,744,213.66	998,400	745,814	107,830	6.18	6.9
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	632,593.59	205,091	427,503	33,372	5.28	12.8
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	2,461	11,771	547	3.84	21.5
	TOTAL DEPRECIABLE PLANT		**354,391,699.56**	**74,312,248**	**280,079,451**	**9,067,027**	**2.56**	**30.9**
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,592,020.09					
	TOTAL NONDEPRECIABLE PLANT		**2,992,203.14**					
	AMORTIZATION OF NET SALVAGE					**897,190**		
	TOTAL UTILITY PLANT		**357,383,902.70**	**74,312,248**	**280,079,451**	**9,964,217**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2022, OF BOOK RESERVE AS OF DECEMBER 31, 2021

ACCOUNT	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2021		PROJECTED DEPRECIATION ACCRUALS		PROJECTED RETIREMENTS		PROJECTED COST OF REMOVAL		PROJECTED SALVAGE		ACQUISITIONS		PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2022
(1)	(2)	+	(3)	-	(4)	-	(5)	+	(6)	+	(7)	=	(8)
354.20	49,219		63,092		1,401		13,587						97,323
354.30	5,144,884		325,647		18,356		2,386						5,449,788
354.40	12,232,042		1,272,456		56,167		562						13,447,768
354.70	1,613,097		88,037		3,218		10,331						1,687,584
355.00	2,739,150		68,828										2,807,978
360.10	2,894,314		759,287		62,421		64,294						3,526,886
361.10	12,678,919		1,999,555		480,223		225,705						13,972,547
361.20	1,778,786		417,490		22,832		137,220		457				2,036,681
363.00	4,422,337		604,967		122,608		123,835						4,780,861
364.00	127,900		42,748										170,648
365.00	1,315		1,198										2,513
370.00	31,682		3,241										34,923
371.00	1,690,669		652,922		9,472		2,463						2,331,656
380.00	16,084,154		2,433,983		33,913		4,070						18,480,154
381.00	1,449,946		141,576										1,591,522
382.00	231,500		13,190										244,690
389.10	199,257		32,306										231,563
389.60	106,944		351,045										457,989
390.00	24,328		13,263										37,591
391.00	533,900		218,897		29,813		4,770						718,213
392.00	29,475		4,273										33,748
393.00	227,278		71,834										299,112
394.00	233,029		42,973		859		86						275,058
395.00	361,954		35,148		7,453		149						389,500
396.00	887,391		113,680		2,450		221						998,400
397.00	176,585		28,506										205,090
398.00	1,652		809										2,461
TOTAL	65,951,706		9,800,949		851,187		589,676		457		0		74,312,248

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2022

ACCOUNT	NET ORIGINAL COST AS OF 12/31/2021	NET ORIGINAL COST AS OF 12/31/2022	ACCRUAL RATE	DEPRECIATION ACCRUALS	AMORTIZATION OF NET SALVAGE	PROJECTED DEPRECIATION ACCRUALS
(1)	(2)	(3)	(4)	(5)*	(6)	(7)=(5)+(6)
354.20	1,350,155.77	1,372,711.27	2.84	38,574	24,518	63,092
354.30	14,958,113.65	15,253,684.27	2.01	302,788	22,859	325,647
354.40	52,285,165.25	53,189,589.53	2.41	1,267,886	4,570	1,272,456
354.70	3,102,005.24	3,153,826.87	2.01	62,724	25,313	88,037
355.00	4,036,071.90	4,036,071.90	1.63	65,788	3,040	68,828
360.10	38,161,242.14	39,166,371.54	1.75	673,706	85,581	759,287
361.10	99,296,640.99	106,666,373.56	1.60	1,633,382	366,173	1,999,555
361.20	12,812,001.40	13,269,957.20	2.63	342,146	75,344	417,490
363.00	18,663,546.11	20,832,794.90	2.55	500,757	104,210	604,967
364.00	356,424.84	356,424.84	11.98	42,700	48	42,748
365.00	14,938.00	14,938.00	8.02	1,198		1,198
370.00	143,419.77	143,419.77	2.26	3,241		3,241
371.00	13,154,873.34	13,307,400.98	4.71	619,894	33,028	652,922
380.00	64,581,620.12	65,707,706.74	3.67	2,371,867	62,116	2,433,983
381.00	6,182,348.11	6,182,348.11	2.29	141,576		141,576
382.00	604,388.91	604,388.91	2.13	12,873	317	13,190
389.10	582,205.16	582,205.16	5.48	31,905	401	32,306
389.60	1,655,000.00	1,707,500.00	20.97	351,045		351,045
390.00	168,706.08	168,706.08	7.76	13,092	171	13,263
391.00	2,554,774.18	3,034,840.81	7.83	213,813	5,084	218,897
392.00	107,351.44	107,351.44	3.98	4,273		4,273
393.00	1,199,614.28	1,505,097.79	5.29	71,382	452	71,834
394.00	628,336.51	729,305.71	6.14	41,616	1,357	42,973
395.00	787,628.77	907,645.43	4.17	34,678	470	35,148
396.00	1,669,700.06	1,744,213.66	6.33	107,931	5,749	113,680
397.00	496,492.71	632,593.59	4.84	26,200	2,306	28,506
398.00	14,231.50	14,231.50	3.93	559	250	809
TOTAL	**339,566,996.23**	**354,391,699.56**		**8,977,592**	**823,357**	**9,800,949**

* Total accruals shown are based on average monthly balances.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

	2018		2019		PROJECTED 2020		PROJECTED 2021		PROJECTED 2022			
ACCOUNT	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)*	(13)=(12)/5
354.20		2,367		27,531		29,175		63,211		13,587	(135,871)	(27,174)
354.30		87		61,135		5,124		11,101		2,386	(79,833)	(15,967)
354.40		(18,539)		1,986		1,206		2,613		562	12,172	2,434
354.70		36,100		18,075		22,182		48,060		10,331	(134,747)	(26,949)
355.00		4,539		9,730							(14,269)	(2,854)
360.10		85,350		245,202		41,420		54,123		64,294	(490,390)	(98,078)
361.10		345,943		1,038,559		170,104		222,272		225,705	(2,002,583)	(400,517)
361.20				109,567	440	132,346	452	135,702	457	137,220	(513,485)	(102,697)
363.00		48,455		150,830		130,023		122,465		123,835	(575,608)	(115,122)
364.00				240							(240)	(48)
371.00		(18,885)		141,438		37,534				2,463	(162,550)	(32,510)
380.00		12,304		214,843		11,073		65,469		4,070	(307,759)	(61,552)
382.00		981									(981)	(196)
389.10		(3,678)		5,682							(2,003)	(401)
390.00		94									(94)	(19)
391.00		9,708		6,029		5,013		4,669		4,770	(30,189)	(6,038)
393.00				1,931							(1,931)	(386)
394.00		118		5,593		1,012				86	(6,809)	(1,362)
395.00				2,048		157		146		149	(2,500)	(500)
396.00				1,898		21,079		293		221	(23,491)	(4,698)
397.00		6,019		5,513							(11,532)	(2,306)
398.00				1,251							(1,251)	(250)
TOTAL	**0**	**510,964**	**0**	**2,049,082**	**440**	**607,449**	**452**	**730,122**	**457**	**589,676**	**(4,485,944)**	**(897,190)**

* Column (12) equals the summation of Columns (2) through (11).

Pennsylvania American Water Company

Valley Township, Chester County, Pennsylvania

Water System
Appraisal Work Papers
As of December 17, 2019

PAWC General Rate Cases Depreciation Studies
Water and Wastewater 2017

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

VOLUME 11

PENNSYLVANIA-AMERICAN WATER COMPANY

2017 GENERAL BASE RATE CASE

R-2017-2595853

EXHIBIT NO. 11-C - DEPRECIATION STUDY

WATER OPERATIONS AS OF

DECEMBER 31, 2018

Exhibit No. 11-C
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

HERSHEY, PENNSYLVANIA

2018 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2018

Prepared by:

*Excellence Delivered **As Promised***

Exhibit No. 11-C
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Hershey, Pennsylvania

2018 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2018

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

*Excellence Delivered **As Promised***

April 21, 2017

Pennsylvania-American Water Company
800 West Hersheypark Drive
Hershey, PA 17033

Attention: Mr. John R. Cox
Manager of Rates and Regulations

Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant as of December 31, 2018. The results of our study at December 31, 2013 are presented in our report titled "2017 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2017". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
Sr. Vice President

JJS:mlw

062027.100

Gannett Fleming Valuation and Rate Consultants, LLC
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PENNSYLVANIA-AMERICAN WATER COMPANY

DEPRECIATION STUDY

RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Tables 1 through 5 presented on pages 3 through 10 summarize the results of the depreciation study as of December 31, 2018. Table 1 sets forth the development of the net original cost by account as of December 31, 2018. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2018, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to December 31, 2018. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2018. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2014 through 2018.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2014 through 2018, beginning on pages III-2 through III-5.

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2018

	DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2018		CUSTOMER ADVANCES		CONTRIBUTIONS IN AID OF CONSTRUCTION		EXCLUDED PROPERTY		NET ORIGINAL COST AS OF DECMEBER 31, 2018
	(1)	(2)	-	(3)	-	(4)	-	(5)	=	(6)
INTANGIBLE PLANT										
301.00	ORGANIZATION	774,398.06								774,398.06
302.00	FRANCHISES AND CONSENTS	2,404,599.20								2,404,599.20
303.00	MISCELLANEOUS INTANGIBLE PLANT	15,569.16								15,569.16
	TOTAL INTANGIBLE PLANT	**3,194,566.42**		**0.00**		**0.00**		**0.00**		**3,194,566.42**
NONDEPRECIABLE PLANT										
303.20	POWER AND PUMPING LAND	3,576,428.03								3,576,428.03
303.30	PURIFICATION LAND	15,412.25								15,412.25
303.40	TRANS. AND DISTR. LAND AND RIGHTS OF WAY	4,578,480.03				215,927.20				4,362,552.83
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPE LAND	2,389,882.77								2,389,882.77
303.51	TRANSMISSION AND DISTRIBUTION - LAND	1,762,423.06								1,762,423.06
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	5,288,947.81								5,288,947.81
303.61	OFFICE LAND	3,918,022.99								3,918,022.99
	TOTAL NONDEPRECIABLE PLANT	**21,529,596.94**		**0.00**		**215,927.20**		**0.00**		**21,313,669.74**
DEPRECIABLE PLANT										
303.14	WATER RIGHTS - HIBERNIA	1,942,822.51								1,942,822.51
303.35	WASTE HANDLING AND TREATMENT LAND	155,025.17								155,025.17
303.99	COMPREHENSIVE PLANNING STUDIES	9,920,726.11								9,920,726.11
304.15	OTHER WATER SOURCE STRUCTURES	34,442,969.90								34,442,969.90
304.20	POWER AND PUMPING STRUCTURES	107,320,207.30				1,289,607.60		41,310.00		105,989,289.70
304.30	PURIFICATION BUILDINGS	274,724,337.33				169,605.01		230,375.00		274,324,357.32
304.36	WASTE HANDLING AND TREATMENT STRUCTURE	11,733,221.74								11,733,221.74
304.38	WASTE HANDLING & TREATMENT STRUCTURE PAINTING	65,958.42								65,958.42
304.39	PURIFICATION BUILDINGS - TANK PAINTING	134,806.79								134,806.79
304.61	OFFICE BUILDINGS	40,019,986.62				60,000.00		12,834.00		39,947,152.62
304.62	STORES, SHOP AND GARAGE BUILDINGS	55,222,287.14				576.00				55,221,711.14
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	4,933,374.39								4,933,374.39
305.00	COLLECTING AND IMPOUNDING RESERVOIRS	134,357,766.90				3,575.00				134,354,191.90
306.00	LAKE, RIVER AND OTHER INTAKES	20,005,870.35				41,551.00				19,964,319.35
307.00	WELLS AND SPRINGS	11,241,893.43				71,610.27				11,170,283.16
310.00	OTHER POWER PRODUCTION EQUIPMENT	18,152,052.81				118,273.00		26,561.00		18,007,218.81
311.20	ELECTRIC PUMPING EQUIPMENT	21,282,287.19				1,954,569.05		116,716.00		19,211,002.14
311.50	OTHER	1,634,152.00								1,634,152.00
311.52	SOURCE OF SUPPLY	8,509,617.14								8,509,617.14
311.53	WATER TREATMENT	47,732,222.90								47,732,222.90
311.54	TRANSMISSION AND DISTRIBUTION	8,693,988.14								8,693,988.14

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2018

	DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2018	- CUSTOMER ADVANCES	- CONTRIBUTIONS IN AID OF CONSTRUCTION	- EXCLUDED PROPERTY	= NET ORIGINAL COST AS OF DECMEBER 31, 2018
	(1)	(2)	(3)	(4)	(5)	(6)
320.10	PURIFICATION SYSTEM - LARGE STRUCTURES	203,017,958.78		27,162.27	627,852.00	202,362,944.51
320.18	PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	103,245.73				103,245.73
320.19	PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	3,770,702.48				3,770,702.48
320.20	PURIFICATION SYSTEM - CHEMICAL TREATMENT	83,453,443.30		42,367.00		83,411,076.30
320.29	PURIFICATION SYSTEM - CHEM. TREATMENT PAINT	8,167.87				8,167.87
320.30	GRANULAR ACTIVATED CARBON	8,693,834.87				8,693,834.87
320.37	WASTE HANDLING & TREATMENT - EQUIPMENT	16,075,077.23				16,075,077.23
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	101,037,841.09		2,905,114.51		98,132,726.58
330.10	ELEVATED TANKS AND STANDPIPES	17,636,401.77				17,636,401.77
330.20	GROUND LEVEL FACILITIES	22,144,158.48				22,144,158.48
330.30	BELOW GRADE FACILITIES	818,744.06				818,744.06
330.40	CLEARWELL	14,179,641.14				14,179,641.14
330.58	DISTR. RESERVOIRS AND STANDPIPES - PAINTING	2,375,281.44				2,375,281.44
330.59	DISTR. RESERVOIRS AND STANDPIPES - PAINTING	36,418,707.41				36,418,707.41
331.00	MAINS AND ACCESSORIES	2,676,234,771.44	81,810,993.14	178,351,203.78	502,366.00	2,415,570,208.52
333.00	SERVICES	578,601,077.41	1,753,981.88	9,002,408.46		567,844,687.07
334.00	METERS	203,441,435.13	305,369.35	1,653,080.42		201,482,985.36
335.00	FIRE HYDRANTS	107,503,420.52		4,275,268.25		103,228,152.27
340.10	OFFICE FURNITURE	19,179,166.67				19,179,166.67
340.20	COMPUTERS AND PERIPHERAL EQUIPMENT	18,458,835.00		354.00		18,458,481.00
340.30	COMPUTER SOFTWARE - 5 YEAR	36,694,738.71				36,694,738.71
340.31	COMPUTER SOFTWARE - 10 YEAR	62,548,894.51				62,548,894.51
341.00	NOT CLASSIFIED	16,002.14				16,002.14
341.10	LIGHT DUTY TRUCKS	18,911,227.50				18,911,227.50
341.20	EQUIPMENT	14,430,392.96				14,430,392.96
341.30	AUTOS	4,883,332.68				4,883,332.68
341.40	OTHER	5,895,986.16				5,895,986.16
342.00	STORES EQUIPMENT	400,072.70				400,072.70
343.00	TOOLS AND WORK EQUIPMENT	26,095,362.58		61.00		26,095,301.58
344.00	LABORATORY EQUIPMENT	3,323,028.15				3,323,028.15
345.00	POWER OPERATED EQUIPMENT	2,571,357.61				2,571,357.61
346.00	EQUIPMENT	2,585,584.40				2,585,584.40
346.10	NON-TELEPHONE	918,926.11				918,926.11
346.19	REMOTE CONTROL AND INSTRUMENTATION	6,460,864.86				6,460,864.86
346.20	TELEPHONE	831,870.50				831,870.50
347.00	MISCELLANEOUS EQUIPMENT	17,035,118.69		4,085.00		17,031,033.69
348.00	OTHER TANGIBLE EQUIPMENT	735,410.29				735,410.29
	TOTAL DEPRECIABLE PLANT	**5,129,715,656.65**	**83,870,344.37**	**199,970,471.62**	**1,558,014.00**	**4,844,316,826.66**
	TOTAL WATER PLANT IN SERVICE	**5,154,439,820.01**	**83,870,344.37**	**200,186,398.82**	**1,558,014.00**	**4,868,825,062.82**

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2018

	DEPRECIABLE GROUP	SURVIVOR CURVE		NET ORIGINAL COST AS OF DECEMBER 31, 2018	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)
INTANGIBLE PLANT									
301.00	ORGANIZATION	NONDEPR.		774,398.06					
302.00	FRANCHISES AND CONSENTS	NONDEPR.		2,404,599.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.		15,569.16					
	TOTAL INTANGIBLE PLANT			**3,194,566.42**					
NONDEPRECIABLE PLANT									
303.20	POWER AND PUMPING LAND	NONDEPR.		3,576,428.03					
303.30	PURIFICATION LAND	NONDEPR.		15,412.25					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.		4,362,552.83					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.		2,389,882.77					
303.51	TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.		1,762,423.06					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.		5,288,947.81					
303.61	OFFICE LAND	NONDEPR		3,918,022.99					
	TOTAL NONDEPRECIABLE PLANT			**21,313,669.74**					
DEPRECIABLE PLANT									
303.14	WATER RIGHTS - HIBERNIA	25-SQ		1,942,822.51	1,763,172	179,651	119,767	6.16	1.5
303.35	WASTE HANDLING AND TREATMENT LAND	100-R2	*	155,025.17	155,025	0	0	-	-
303.99	COMPREHENSIVE PLANNING STUDIES	5-SQ		9,920,726.11	6,716,899	3,203,827	1,251,002	12.61	2.6
304.15	OTHER WATER SOURCE STRUCTURES	60-R3		34,442,969.90	7,573,274	26,869,696	624,862	1.81	43.0
304.20	POWER AND PUMING STRUCTURES								
	LARGE STRUCTURES	70-R2.5	*	64,671,856.38	7,894,471	56,777,385	1,515,893	2.34	37.5
	OTHER STRUCTURES	55-R3		41,317,433.32	9,408,085	31,909,348	1,013,195	2.45	31.5
	TOTAL ACCOUNT 304.2			105,989,289.70	17,302,556	88,686,733	2,529,088	2.39	35.1
304.30	PURIFICATION BUILDINGS								
	LARGE STRUCTURES	60-R2.5	*	221,661,139.93	71,976,298	149,684,840	4,739,588	2.14	31.6
	OTHER STRUCTURES	55-R3		52,663,217.39	17,798,107	34,865,110	965,350	1.83	36.1
	TOTAL ACCOUNT 304.3			274,324,357.32	89,774,405	184,549,950	5,704,938	2.08	32.3
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	60-R2.5	*	11,733,221.74	5,437,209	6,296,013	317,692	2.71	19.8
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ		65,958.42	53,322	12,636	1,944	2.95	6.5
304.39	PURIFICATION BUILDINGS - TANK PAINTING	10-SQ		134,806.79	118,388	16,419	2,526	1.87	6.5
304.61	OFFICE BUILDINGS								
	LARGE STRUCTURES	50-R1.5	*	33,043,308.29	2,227,308	30,816,000	1,588,814	4.81	19.4
	OTHER OTHER STRUCTURES	45-R3		6,903,844.33	1,760,585	5,143,259	252,918	3.66	20.3
	TOTAL ACCOUNT 304.61			39,947,152.62	3,987,893	35,959,259	1,841,732	4.61	19.5
304.62	STORES, SHOP AND GARAGE BUILDINGS								
	LARGE STRUCTURES	75-R2	*	46,534,320.53	5,760,761	40,773,559	1,216,856	2.61	33.5
	OTHER OTHER STRUCTURES	45-R3		8,687,390.61	2,972,865	5,714,526	197,657	2.28	28.9
	TOTAL ACCOUNT 304.62			55,221,711.14	8,733,626	46,488,085	1,414,513	2.56	32.9

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2018

	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2018	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	50-R2.5	4,933,374.39	688,106	4,245,268	118,887	2.41	35.7
	TOTAL ACCOUNT 304		526,792,842.02	133,668,779	393,124,059	12,556,182	2.38	31.3
305.00	COLLECTING AND IMPOUNDING RESERVOIRS							
	LARGE RESERVOIRS	125-R2.5 *	127,795,628.42	12,895,938	114,899,691	1,855,378	1.45	61.9
	OTHER RESERVOIRS	75-R3	6,558,563.48	1,994,257	4,564,306	211,899	3.23	21.5
	TOTAL ACCOUNT 305		134,354,191.90	14,890,195	119,463,997	2,067,277	1.54	57.8
306.00	LAKE, RIVER AND OTHER INTAKES							
	LARGE RESERVOIRS	65-S1.5 *	14,550,654.76	4,232,561	10,318,093	281,627	1.94	36.6
	OTHER RESERVOIRS	60-S1	5,413,664.59	1,518,542	3,895,123	114,947	2.12	33.9
	TOTAL ACCOUNT 306		19,964,319.35	5,751,103	14,213,216	396,574	1.99	35.8
307.00	WELLS AND SPRINGS	55-R2	11,170,283.16	4,335,267	6,835,016	214,258	1.92	31.9
310.00	POWER GENERATION EQUIPMENT	40-R2.5	18,007,218.81	4,138,472	13,868,747	507,133	2.82	27.3
	PUMPING EQUIPMENT							
311.20	ELECTRIC PUMPING EQUIPMENT	50-R1	19,211,002.14	2,866,110	16,344,892	607,142	3.16	26.9
311.50	OTHER	50-R1	1,634,152.00	442,578	1,191,574	38,877	2.38	30.6
311.52	SOURCE OF SUPPLY	50-R1	8,509,617.14	1,490,308	7,019,309	230,180	2.70	30.5
311.53	WATER TREATMENT	50-R1	47,732,222.90	24,443,262	23,288,961	844,364	1.77	27.6
311.54	TRANSMISSION AND DISTRIBUTION	50-R1	8,693,988.14	2,116,640	6,577,348	228,997	2.63	28.7
	TOTAL ACCOUNT 311		85,780,982.32	31,358,898	54,422,084	1,949,560	2.27	27.9
	PURIFICATION SYSTEM							
320.10	PURIFICATION STRUCTURES							
	LARGE STRUCTURES	70-R2 *	184,705,299.72	68,522,614	116,182,684	3,855,315	2.09	30.1
	OTHER OTHER STRUCTURES	55-R3	17,657,644.79	6,494,933	11,162,712	326,633	1.85	34.2
	TOTAL ACCOUNT 320.1		202,362,944.51	75,017,547	127,345,396	4,181,948	2.07	30.5
320.18	LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ	3,770,702.48	3,730,550	40,152	6,177	0.16	6.5
320.20	CHEMICAL TREATMENT	32-R1	83,411,076.30	32,322,374	51,088,702	3,007,085	3.61	17.0
320.29	CHEMICAL TREATMENT PAINT	FULLY ACCRUED	8,167.87	8,168	0	0	-	-
	TOTAL PURIFICATION SYSTEM		289,656,136.89	111,181,885	178,474,250	7,195,210	2.48	24.8
320.30	GRANULAR ACTIVATED CARBON	6-L2.5	8,693,834.87	7,889,111	804,724	352,710	4.06	2.3
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	25-R3	16,075,077.23	10,177,065	5,898,012	454,920	2.83	13.0
	TOTAL ACCOUNT 320		314,425,048.99	129,248,061	185,176,986	8,002,840	2.55	23.1
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-R2	98,132,726.58	33,734,636	64,398,091	1,654,187	1.69	38.9
330.10	ELEVATED TANKS AND STANDPIPES	65-R2	17,636,401.77	1,995,151	15,641,251	351,909	2.00	44.4
330.20	GROUND LEVEL FACILITIES	65-R2	22,144,158.48	1,625,703	20,518,455	461,150	2.08	44.5
330.30	BELOW GRADE FACILITIES	65-R2	818,744.06	94,397	724,347	15,980	1.95	45.3
330.40	CLEARWELL	65-R2	14,179,641.14	1,641,824	12,537,817	277,639	1.96	45.2
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,375,281.44	2,271,962	103,319	15,895	0.67	6.5
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	36,418,707.41	23,152,151	13,266,556	1,947,156	5.35	6.8
	TOTAL ACCOUNT 330		191,705,660.88	64,515,824	127,189,836	4,723,916	2.46	26.9

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2018

	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2018	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
331.00	MAINS AND ACCESSORIES	110-R2	2,415,570,208.52	334,433,465	2,081,136,744	28,333,986	1.17	73.5
333.00	SERVICES	70-R2	567,844,687.07	138,762,554	429,082,133	9,665,934	1.70	44.4
334.00	METERS AND METER INSTALLATIONS	19-L1.5	201,482,985.36	86,722,828	114,760,157	11,361,534	5.64	10.1
335.00	FIRE HYDRANTS	72-R2	103,228,152.27	21,864,870	81,363,282	1,738,263	1.68	46.8
340.00	OFFICE FURNITURE AND EQUIPMENT							
	FURNITURE	20-SQ	19,179,166.67	10,246,557	8,932,610	1,167,381	6.09	7.7
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	18,458,481.00	10,236,065	8,222,416	4,056,320	21.98	2.0
	COMPUTER SOFTWARE - 5 YEAR	5-SQ	36,694,738.71	11,923,801	24,770,938	7,550,771	20.58	3.3
	COMPUTER SOFTWARE - 10 YEAR	10-SQ	62,548,894.51	33,663,138	28,885,757	7,051,454	11.27	4.1
	TOTAL ACCOUNT 340		136,881,280.89	66,069,561	70,811,721	19,825,926	14.48	3.6
341.00	TRANSPORATION EQUIPMENT							
	NOT CLASSIFIED	6-L3	16,002.14	16,002	0	0	-	-
	LIGHT DUTY TRUCKS	6-L3	18,911,227.50	11,779,314	7,131,914	2,386,794	12.62	3.0
	EQUIPMENT	6-L3	14,430,392.96	8,523,832	5,906,561	1,912,723	13.25	3.1
	AUTOS	6-L3	4,883,332.68	3,523,998	1,359,335	437,513	8.96	3.1
	OTHER	6-L3	5,895,986.16	3,635,257	2,260,729	740,427	12.56	3.1
	TOTAL ACCOUNT 341		44,136,941.44	27,478,403	16,658,539	5,477,457	12.41	3.0
342.00	STORES EQUIPMENT	20-SQ	400,072.70	175,368	224,705	25,808	6.45	8.7
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	26,095,301.58	6,924,992	19,170,310	1,386,538	5.31	13.8
344.00	LABORATORY EQUIPMENT	20-R0.5	3,323,028.15	1,953,912	1,369,116	149,806	4.51	9.1
345.00	POWER OPERATED EQUIPMENT	10-S2	2,571,357.61	2,356,661	214,697	54,619	2.12	3.9
346.00	COMUNICATION EQUIPMENT							
	EQUIPMENT	15-SQ	2,585,584.40	1,596,948	988,636	191,330	7.40	5.2
	NON-TELEPHONE	15-SQ	918,926.11	337,227	581,699	62,431	6.79	9.3
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	6,460,864.86	2,304,114	4,156,751	639,314	9.90	6.5
	TELEPHONE	10-SQ	831,870.50	576,271	255,600	90,692	10.90	2.8
	TOTAL ACCOUNT 346		10,797,245.87	4,814,560	5,982,686	983,767	9.11	6.1
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	17,031,033.69	7,190,728	9,840,306	740,716	4.35	13.3
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	735,410.29	336,044	399,366	29,846	4.06	13.4
	TOTAL DEPRECIABLE PLANT		**4,844,316,826.66**	**1,095,625,641**	**3,748,691,181**	**111,562,709**	**2.30**	
	AMORTIZATION OF NET SALVAGE					**10,118,367**		
	TOTAL WATER PLANT IN SERVICE		**4,868,825,062.82**	**1,095,625,641**	**3,748,691,181**	**121,681,076**		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2018, OF BOOK RESERVE AS OF DECEMBER 31, 2017

Account (1)	BOOK RESERVE BALANCE AS OF 12/31/2017 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2018 (8)
303.14	1,643,499		119,673										1,763,172
303.35	155,025		1								(1)		155,025
303.99	5,352,539		1,364,360										6,716,899
304.15	6,909,235		664,039										7,573,274
304.20	15,033,851		2,322,205		50,000		3,500						17,302,556
304.30	85,330,298		5,335,142		625,500		125,100		31,275				89,946,115
304.36	5,115,719		321,490										5,437,209
304.61	8,272,646		492,346		4,118,189		658,910						3,987,893
304.62	8,353,831		863,511		420,623		63,093						8,733,626
304.63	587,392		100,714										688,106
305.00	13,760,888		1,974,307		676,000		169,000						14,890,195
306.00	5,387,209		363,894										5,751,103
307.00	4,108,224		227,043										4,335,267
310.00	3,660,377		478,095										4,138,472
311.00	29,682,739		1,686,559		10,000		400						31,358,898
320.00	105,563,784		6,709,898		983,601		108,196						111,181,885
320.30	7,281,524		618,087		10,000		500						7,889,111
320.37	9,643,694		533,371										10,177,065
330.00	59,927,838		5,281,086		415,030		278,070						64,515,824
331.00	307,251,055		33,308,236		2,001,904		4,143,941		20,019				334,433,465
333.00	130,484,389		10,279,715		758,163		1,288,877		45,490				138,762,554
334.00	82,002,013		12,137,416		5,794,220		1,796,208		173,827				86,722,828
335.00	20,413,015		1,835,503		132,750		253,553		2,655				21,864,870
340.00	54,302,838		19,960,056		8,193,333								66,069,561
341.00	23,491,852		5,385,886		1,385,480		13,855						27,478,403
342.00	148,957		26,411										175,368
343.00	5,794,792		1,403,657		273,457								6,924,992
344.00	1,785,651		168,261										1,953,912
345.00	2,212,806		143,855										2,356,661
346.00	4,832,669		939,756		957,865								4,814,560
347.00	7,210,908		780,531		800,711								7,190,728
348.00	306,186		29,858										336,044
TOTAL	**1,016,007,443**		**115,854,962**		**27,606,826**		**8,903,203**		**273,266**		**(1)**		**1,095,625,641**

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2017 (2)	NET ORIGINAL COST AS OF 12/31/2018 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5) **	AMORTIZATION OF NET SALVAGE (6) **	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
303.14	1,942,822.51	1,942,822.51	6.16	119,678	(5)	119,673
303.35	155,025.17	155,025.17	0.00	0	1	1
303.99	9,576,726.11	9,920,726.11	13.49	1,364,360	0	1,364,360
304.15	34,442,969.90	34,442,969.90	1.83	630,306	33,733	664,039
304.20	93,905,163.70	105,989,289.70	2.43	2,294,131	28,074	2,322,205
304.30	243,136,140.53	274,525,122.53	2.04	5,060,596	274,546	5,335,142
304.36	11,733,221.74	11,733,221.74	2.74	321,490	0	321,490
304.61	17,094,819.62	39,947,152.62	2.57	463,808	28,538	492,346
304.62	32,773,506.14	55,221,711.14	2.43	827,212	36,299	863,511
304.63	3,533,821.39	4,933,374.39	2.36	84,774	15,940	100,714
305.00	104,994,473.90	134,354,191.90	1.59	1,841,311	132,996	1,974,307
306.00	17,500,498.35	19,964,319.35	2.01	362,121	1,773	363,894
307.00	11,170,283.16	11,170,283.16	1.96	218,938	8,105	227,043
310.00	16,166,661.81	18,007,218.81	2.80	459,831	18,264	478,095
311.00	75,163,955.32	85,780,982.32	2.09	1,580,172	106,387	1,686,559
320.00	249,747,732.89	289,656,136.89	2.42	6,175,354	534,544	6,709,898
320.30	8,392,061.87	8,693,834.87	6.87	577,398	40,689	618,087
320.37	16,075,077.23	16,075,077.23	3.07	493,505	39,866	533,371
330.00	175,036,176.88	191,705,660.88	2.38	4,247,686	1,033,400	5,281,086
331.00	2,266,777,896.52	2,415,570,208.52	1.18	27,309,171	5,999,065	33,308,236
333.00	544,561,188.07	567,844,687.07	1.71	9,499,159	780,556	10,279,715
334.00	190,951,156.36	201,482,985.36	5.65	11,052,527	1,084,889	12,137,416
335.00	97,220,732.27	103,228,152.27	1.69	1,691,756	143,747	1,835,503
340.00	128,187,365.27	136,881,280.89	14.81	19,947,271	12,785	19,960,056
341.00	38,595,020.44	44,136,941.44	13.47	5,380,407	5,479	5,385,886
342.00	400,072.70	400,072.70	6.57	26,285	126	26,411
343.00	24,418,459.37	26,095,301.58	5.47	1,390,131	13,526	1,403,657
344.00	3,323,028.15	3,323,028.15	4.99	165,819	2,442	168,261
345.00	2,571,357.61	2,571,357.61	5.56	142,967	888	143,855
346.00	9,582,111.31	10,797,245.87	9.36	935,813	3,943	939,756
347.00	16,642,716.36	17,031,033.69	4.55	773,172	7,359	780,531
348.00	735,410.29	735,410.29	4.06	29,858	0	29,858
TOTAL	**4,446,507,652.94**	**4,844,316,826.66**		**105,467,007**	**10,387,955**	**115,854,962**

** developed in monthly bringforward schedule

PENNSYLVANIA-AMERICAN WATER COMPANY

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

Account (1)	EXPERIENCED AND ESTIMATED NET SALVAGE 2014 (2)	2015 (3)	2016 (4)	2017 (5)	2018 (5)	5 - YEAR AMORT. (7)
	0	0	26	0	0	(5)
303.35	(4)	0	0	0	0	1
304.15	(46,636)	(46,243)	(70,089)	0	0	32,594
304.20	(53,488)	(56,757)	(26,237)	0	(3,500)	27,996
304.30	319,920	(476,945)	(191,035)	(19,080)	(93,825)	92,193
304.61	(65,824)	0	(70,936)	0	(658,910)	159,134
304.62	(80,107)	(3,615)	(48,019)	(14,400)	(63,093)	41,847
304.63	0	(59,776)	(11,676)	(8,250)	0	15,940
305.00	(317,805)	(46,348)	(84,116)	(59,314)	(169,000)	135,316
306.00	(2,002)	(324)	(6,542)	0	0	1,773
307.00	(13,938)	(16,118)	(1,054)	0	0	6,222
310.00	0	(8,915)	(45,776)	0	0	10,938
311.00	(162,341)	(159,509)	(103,119)	0	(400)	85,074
320.00	(93,583)	(182,337)	(101,953)	(91,944)	(108,196)	115,603
320.30	(27,730)	(78,144)	(16,457)	0	(500)	24,566
320.37	(6,734)	0	(192,597)	0	0	39,866
330.00	(631,746)	(1,024,942)	(1,370,181)	(475,306)	(278,070)	756,049
331.00	(3,496,437)	(7,578,550)	(11,564,326)	(4,703,868)	(4,123,922)	6,293,421
333.00	(446,624)	(606,667)	(987,614)	(1,239,963)	(1,243,387)	904,851
334.00	(764,036)	(1,258,131)	(770,084)	(1,414,519)	(1,622,381)	1,165,830
335.00	(146,091)	81,394	(276,615)	(244,260)	(250,898)	167,294
340.00	1,941	(20,871)	(41,508)	0	0	12,088
341.00	(1,555)	(13,623)	(1,158)	(11,060)	(13,855)	8,250
342.00	0	(630)	0	0	0	126
343.00	(9,640)	(19,321)	(18,941)	0	0	9,580
344.00	(983)	(3,939)	(5,015)	0	0	1,987
345.00	(201)	(3,680)	(472)	0	0	871
346.00	(1,029)	(7,472)	(777)	0	0	1,856
347.00	(9,534)	(21,448)	(4,547)	0	0	7,106
TOTAL	(6,056,209)	(11,612,910)	(16,010,818)	(8,281,964)	(8,629,937)	10,118,367

PART II. DETAILED DEPRECIATION CALCULATIONS

VOLUME 12

PENNSYLVANIA-AMERICAN WATER COMPANY

2017 GENERAL BASE RATE CASE

R-2017-2595853

EXHIBITS NO. 11-D, 11-E, 11-F

DEPRECIATION STUDY

WASTEWATER OPERATIONS

(EXCLUDING SCRANTON WASTEWATER)

AS OF DECEMBER 31, 2016, 2017, 2018

Exhibit No. 11-D
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

HERSHEY, PENNSYLVANIA

WASTEWATER OPERATIONS

(Excluding Scranton Wastewater)

2016 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF DECEMBER 31, 2016

Prepared by:

Excellence Delivered ***As Promised***

Exhibit No. 11-D
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Hershey, Pennsylvania

WASTEWATER OPERATIONS

(Excluding Scranton Wastewater)

2016 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2016

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

*Excellence Delivered **As Promised***

April 21, 2017

Pennsylvania-American Water Company
800 West Hersheypark Drive
Hershey, PA 17033

Attention Mr. John R. Cox
Manager of Rates and Regulations

Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2016. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 through 3, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2017 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of December 31, 2017".

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
Sr. Vice President

JJS:mlw

062027.100

Gannett Fleming Valuation and Rate Consultants, LLC
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PART I. RESULTS OF STUDY

PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER OPERATIONS
(Excluding Scranton Wastewater)

DEPRECIATION STUDY

PART I. RESULTS OF STUDY

SUMMARY OF RESULTS

Table 1 presents the development of net original cost used in the study. The net original cost is the original cost of wastewater plant less advances and contributions. The results of the depreciation study are summarized in Table 2, which sets forth the book reserve and the calculated annual depreciation related to net original cost as of December 31, 2016, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2012-2016.

DETAILED TABULATIONS OF DEPRECIATION CALCULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage, and cost of removal are set forth by account for the years 2012 through 2016, on pages III-2 through III-6.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER OPERATIONS (EXCLUDING SCRANTON WASTEWATER)

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2016

DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2016	- CUSTOMER ADVANCES	- CONTRIBUTIONS IN AID OF CONSTRUCTION	- EXCLUDED PROPERTY	= NET ORIGINAL COST AS OF DECMEBER 31, 2016
(1)	(2)	(3)	(4)	(5)	(6)
DEPRECIABLE PLANT					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	479,296.86				479,296.86
354.30 STRUCTURES AND IMPROVEMENTS - SPP	18,169,291.90		2,734,528.70		15,434,763.20
354.40 STRUCTURES AND IMPROVEMENTS - TDP	50,958,423.67		1,853,012.73		49,105,410.94
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	2,130,769.53				2,130,769.53
355.00 POWER GENERATING EQUIPMENT	4,881,040.73		144,517.16		4,736,523.57
360.10 COLLECTION SEWERS - FORCE MAINS	30,666,434.21	157,753.14	11,251,126.61		19,257,554.46
361.10 COLLECTION SEWERS - GRAVITY MAINS	73,305,655.63	143,423.53	9,166,636.12		63,995,595.98
361.20 MANHOLES	13,045,669.35		4,387,312.76		8,658,356.59
363.00 SERVICES	15,575,965.95	70,197.45	3,737,893.58		11,767,874.92
364.00 FLOW MEASURING DEVICES	533,521.59		14,726.81		518,794.78
365.00 FLOW MEASURING INSTALLATIONS	20,918.30				20,918.30
370.00 RECEIVING WELLS	103,531.95				103,531.95
371.00 PUMPING EQUIPMENT	7,114,659.39		66,626.22		7,048,033.17
380.00 TREATMENT EQUIPMENT	52,675,840.17		2,200,080.47		50,475,759.70
381.00 PLANT SEWERS	6,450,916.81		30,192.33		6,420,724.48
382.00 OUTFALL SEWER LINES	674,274.67				674,274.67
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	273,149.74				273,149.74
390.00 OFFICE FURNITURE AND EQUIPMENT	199,675.37				199,675.37
391.00 TRANSPORTATION EQUIPMENT	440,469.70				440,469.70
392.00 STORES EQUIPMENT	64,249.97				64,249.97
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	536,841.71				536,841.71
394.00 LABORATORY EQUIPMENT	342,757.97				342,757.97
395.00 POWER OPERATED EQUIPMENT	532,736.59		10,000.00		522,736.59
396.00 COMMUNICATION EQUIPMENT	1,522,349.38				1,522,349.38
397.00 MISCELLANEOUS EQUIPMENT	3,256,051.56		29,000.00		3,227,051.56
TOTAL DEPRECIABLE PLANT	**283,954,492.70**	**371,374.12**	**35,625,653.49**	**0.00**	**247,957,465.09**
NONDEPRECIABLE PLANT					
352.10 FRANCHISES	221,139.78				221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20				1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07				85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,677,525.60		125,000.00		1,552,525.60
TOTAL NONDEPRECIABLE PLANT	**3,077,708.65**	**0.00**	**125,000.00**	**0.00**	**2,952,708.65**
TOTAL WASTEWATER PLANT IN SERVICE	**287,032,201.35**	**371,374.12**	**35,750,653.49**	**0.00**	**250,910,173.74**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER OPERATIONS (EXCLUDING SCRANTON WASTEWATER)

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2016

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2016	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	479,296.86	49,350	429,947	11,001	2.30	39.1
354.30	STRUCTURES AND IMPROVEMENTS - SPP	50-R2.5	15,434,763.20	4,146,488	11,288,276	249,925	1.62	45.2
354.40	STRUCTURES AND IMPROVEMENTS - TDP	65-R2	49,105,410.94	9,948,199	39,157,212	691,430	1.41	56.6
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	2,130,769.53	1,306,466	824,304	24,748	1.16	33.3
355.00	POWER GENERATING EQUIPMENT	35-R2.5	4,736,523.57	2,652,039	2,084,484	70,197	1.48	29.7
360.10	COLLECTION SEWERS - FORCE MAINS	70-S2	19,257,554.46	175,918	19,081,636	359,040	1.86	53.1
361.10	COLLECTION SEWERS - GRAVITY MAINS	70-R2.5	63,995,595.98	11,371,594	52,624,002	925,253	1.45	56.9
361.20	MANHOLES	50-S1.5	8,658,356.59	1,103,203	7,555,154	183,051	2.11	41.3
363.00	SERVICES	38-R3	11,767,874.92	3,048,755	8,719,120	380,797	3.24	22.9
364.00	FLOW MEASURING DEVICES	20-L3	518,794.78	(3,852)	522,647	39,167	7.55	13.3
365.00	FLOW MEASURING INSTALLATIONS	30-S1.5	20,918.30	4,022	16,896	733	3.50	23.1
370.00	RECEIVING WELLS	50-R3	103,531.95	16,346	87,186	2,042	1.97	42.7
371.00	PUMPING EQUIPMENT	40-S0	7,048,033.17	1,267,841	5,780,192	162,743	2.31	35.5
380.00	TREATMENT EQUIPMENT	45-R2	50,475,759.70	10,681,481	39,794,279	1,072,308	2.12	37.1
381.00	PLANT SEWERS	50-R3	6,420,724.48	831,789	5,588,936	129,614	2.02	43.1
382.00	OUTFALL SEWER LINES	50-R3	674,274.67	157,760	516,515	13,676	2.03	37.8
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT	20-S2.5	273,149.74	72,881	200,268	14,747	5.40	13.6
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	199,675.37	53,384	146,291	11,861	5.94	12.3
391.00	TRANSPORTATION EQUIPMENT	15-L4	440,469.70	245,469	195,000	20,435	4.64	9.5
392.00	STORES EQUIPMENT	25-SQ	64,249.97	18,187	46,063	2,310	3.60	19.9
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	536,841.71	241,652	295,190	18,017	3.36	16.4
394.00	LABORATORY EQUIPMENT	15-SQ	342,757.97	193,677	149,081	13,157	3.84	11.3
395.00	POWER OPERATED EQUIPMENT	16-L2.5	522,736.59	242,424	280,312	32,263	6.17	8.7
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,522,349.38	854,060	668,289	65,055	4.27	10.3
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	3,227,051.56	467,686	2,759,366	288,902	8.95	9.6
	TOTAL DEPRECIABLE PLANT		**247,957,465.09**	**49,146,818**	**198,810,646**	**4,782,472**	**1.93**	
	AMORTIZATION OF NET SALVAGE					**65,222**		
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,552,525.60					
	TOTAL NONDEPRECIABLE PLANT		**2,952,708.65**					
	TOTAL WASTEWATER PLANT IN SERVICE		**250,910,173.74**	**49,146,818**	**198,810,646**	**4,847,694**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER OPERATIONS (EXCLUDING SCRANTON WASTEWATER)

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

Account (1)	EXPERIENCED NET SALVAGE 2012 (2)	2013 (3)	2014 (4)	2015 (5)	2016 (5)	5 - YEAR AMORT. (7)
354.20	0	0	(17,282)	(1,398)	(42)	3,744
354.30	(3,707)	(1,424)	(0)	(4,141)	0	1,854
354.40	(159,227)	(27,581)	(10,305)	(1,027)	(4,581)	40,544
354.70	0	0	0	(480)	0	96
355.00	(3,170)	(963)	(510)	(1,666)	(4,934)	2,248
360.10	(461)	(8,182)	(1,577)	(3,256)	(12,703)	5,236
361.10	(14,158)	(34,624)	(16,027)	(65,334)	(6,970)	27,423
361.20	0	0	0	(7,497)	(53,000)	12,099
363.00	(2,580)	(15,735)	(26,515)	(27,377)	(11,694)	16,780
364.00	0	0	(816)	0	0	163
371.00	(2,645)	(2,291)	(4,325)	(4,902)	(11,515)	5,136
380.00	(120,523)	(6,028)	(21,655)	(1,623)	(23,917)	34,749
381.00	0	0	0	0	(2,110)	422
382.00	(1)	0	0	0	0	0
390.00	0	0	0	0	(276)	55
393.00	0	(240)	(240)	0	171,552	(34,214)
394.00	0	(6)	0	0	(566)	115
395.00	0	0	0	0	44,960	(8,992)
396.00	(1,192)	(2,027)	0	(4,190)	131,476	(24,813)
397.00	0	0	0	0	87,116	(17,423)
TOTAL	(307,663)	(99,101)	(99,252)	(122,889)	302,795	65,222

PART II. DETAILED DEPRECIATION CALCULATIONS

S:\water industry\Lower Makefield Township Sewer Authority\Lower Makefield Report & Testimony\Lower Makefield Wastewater Colllection System Valuation as of 6-30-2020 - Created 3-11-2021

AQUA PENNSYLVANIA, INC.

WASTEWATER ASSETS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED

ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF MARCH 31, 2019

DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF MARCH 31, 2019	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE	ANNUAL ACCRUAL RATE, PERCENT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CONTRIBUTIONS IN AID OF CONSTRUCTION							
DEPRECIABLE PLANT							
354.00 STRUCTURES AND IMPROVEMENTS							
COLLECTION	55-S0.5	1,277,000.00	434,189	842,811	24,094	35.0	1.89
PUMPING	60-S1	1,084,876.22	143,926	940,950	21,563	43.6	1.99
TREATMENT AND DISPOSAL	50-R2	6,537,155.71	1,999,766	4,537,390	159,938	28.4	2.45
GENERAL	50-R3	14,636.81	8,877	5,760	343	16.8	2.34
TOTAL ACCOUNT 354		8,913,668.74	2,586,758	6,326,911	205,938		
360.00 COLLECTION MAINS-FORCE	75-R2.5	9,872,459.72	1,451,118	8,421,342	160,591	52.4	1.63
361.00 COLLECTION MAINS - GRAVITY	75-R2.5	4,083,815.05	835,606	3,248,209	64,804	50.1	1.59
363.00 SERVICES	70-R4	1,488,413.86	535,477	952,937	17,902	53.2	1.20
371.30 PUMPING EQUIPMENT - PUMPING	25-L0.5	464,547.60	67,831	396,717	29,081	13.6	6.26
380.00 TREATMENT AND DISPOSAL EQUIPMENT	40-S0	1,553,793.25	799,221	754,572	35,520	21.2	2.29
381.40 PLANT SEWERS - TREATMENT AND DISPOSAL	40-R1.5	1,536.55	1,252	285	30	9.5	1.95
382.00 OUTFALL LINES	40-R2.5	1,536.55	1,265	272	41	6.6	2.67
389.20 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - COLLECTION	20-L3	13,030.75	5,603	7,428	707	10.5	5.43
390.10 OFFICE FURNITURE AND EQUIPMENT - FURNITURE	20-SQ	274.98	260	15	0	-	-
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	4,449.14	4,504	(55)	0		
394.00 LABORATORY EQUIPMENT	25-SQ	1,362.82	1,383	(20)	0		
TOTAL DEPRECIABLE PLANT		26,398,889.01	6,290,278	20,108,613	514,614		
TOTAL CONTRIBUTIONS IN AID OF CONSTRUCTION		26,398,889.01	6,290,278	20,108,613	514,614		
AMORTIZATION OF NET SALVAGE					43,079		
TOTAL WASTEWATER PLANT		156,015,551.44	34,942,942	118,205,423	4,422,241		

Water and Wastewater Industry

Cost of Capital / Required Return
Water and Wastewater Industry
As of 4-1-2021

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

Cost of Capital / Required Return

The net cashflows described in the income approach section of this report were discounted to present value using a cost of capital reflective of the investor-owned water industry with particular emphasis on investor-owned water and wastewater in the Commonwealth of Pennsylvania capital costs for both debt and equity summarized as follows:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	100.0%						7.72%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.79%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Capitlization 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	Market Capital Cost (2)*(3)
Debt	29%	Market	3.52%	Market	Not Applicable	Not Applicable	1.02%
Equity	71%	Market	9.85%	Market	Not Applicable	Not Applicable	6.99%
Total Capital r	100.0%						8.01%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							6.08%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	100.0%						7.16%
Growth (g)						Not Applicable	0.00%
Rate without Growth: [(1+r)/(1+g)]-1							7.16%

The cost of capital and required return was based on the weighted cost of capital (WACC) method;

wherein the market capital cost of debt and equity at the second quarter (April 1, 2021) closest to the appraisal date are weighted based on the market capital structure typical of the industry. The inputs to the WACC required return determination are described summarized below.

Debt Cost – The market cost of debt at the study data was determined based on review of financial information published by Value Line Investment Surveys in their Selected Yield weekly publication. These sources were helpful in determining the typical debt rating for investments in water industry to be A Standard and Poor's corporate debt rating. The above sources were also useful in determining that the market cost of debt at A rating to be 3.49% on April 1, 2021. Issuance cost of 0.90% was determined based on analysis annual Public Utility Financing Tracker reports over the period 2008 through 2019 published by PUFT, Inc. The final market cost of debt of 3.52% was determined for the water industry using the following formula which incorporates the above-described issuance costs:

1	2	3	4	5
Value Line Investment Surveys **Water Industry** **As of Second Quarter 2021 (4-1-2021)**	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		574.6	22.5	3.92%
American Water	Baa1	9,329.0	354.0	3.79%
California Water		781.1	40.0	5.12%
Consolidated Water Company		0.1	-	
Essential Utilities, Inc.	Baa2	5,507.7	185.0	3.36%
Middlesex Water		273.2	7.5	2.75%
SJW Corporation		1,287.6	50.0	3.88%
York Water		123.6	5.5	4.45%
		17,876.9	664.5	3.72%
Minimum				2.75%
wtd Mean				3.72%
Mean				3.90%
Median				3.88%
Maximum				5.12%

Debt Rating and Cost of Debt

Embedded	3.72%	wtd mean col 5
Rating (S&P)	A	Input
Market Cost of Debt @Bond Rating		
Value Line Selected Yields	3.49%	Input
Use	3.49%	AUS Input
Issuance Cost PUFT Data 2018 2019	0.90%	Input
Final Cost of Debt	3.52%	

$K_d = K_u / (100\% - f)$

where:

K_d =Cost of Debt recognizing issuance costs

K_u is the market cost of debt without consideration of issuance costs

f is the cost of issuance as a percentage of the debt's par value

K_d = 3.49% / (100% -0.90%)

K_d = 3.52%

Equity Cost – The cost of equity was evaluated using the Capital Asset Pricing Model (CAPM) and the dividend growth model (DGM) which looks to market returns to quantify the cost equity capital.

Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Company	Exchange	Ticker	Valueline No	Valueline Issue	Beta	Pricing		Revenues		Cash Flows			Earnings			Dividends			Book Value		
							Past 10 yrs	Past 5 yrs	Past 3 Years to Future 3 Years	Past 10 yrs	Past 5 yrs	Past 3 years to Future 3 Years	Past 10 yrs	Past 5 yrs	Past 3 Years to Future 3 Years	Past 10 yrs	Past 5 yrs	Past 3 Years to Future 3 Years	Past 10 yrs	Past 5 yrs	Past 3 Years to Future 3 Years
American States Water	NYSE	AWR	1789	4/09/2021	0.65	1.9%	2.5%	0.5%	5.0%	5.5%	3.0%	7.0%	9.0%	5.5%	6.5%	6.5%	7.5%	9.5%	5.5%	5.0%	5.5%
American Water	NYSE	AWK	1790	4/09/2021	0.85	1.6%	3.0%	3.5%	4.5%	8.0%	7.0%	6.5%	10.5%	8.0%	8.5%	11.0%	11.5%	8.5%	3.5%	4.5%	5.0%
California Water	NYSE	CWT	1791	4/09/2021	0.65	1.6%	3.5%	4.0%	1.5%	5.0%	8.0%	2.0%	5.0%	8.0%	6.5%	3.0%	4.0%	6.5%	5.0%	5.0%	4.0%
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021	0.85	2.5%	5.0%	0.5%	12.0%	2.0%	0.5%	9.0%	-3.0%	-4.5%	15.0%	5.0%	0.0%	12.5%	5.0%	2.0%	2.5%
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	0.95	2.4%	2.0%	2.0%	10.0%	4.5%	1.0%	6.5%	5.5%	-1.5%	10.0%	7.5%	7.5%	7.5%	9.5%	11.5%	4.5%
Middlesex Water	NDQ	MSEX	1794	4/09/2021	0.7	1.4%	2.0%	2.0%	2.0%	7.5%	10.5%	3.5%	9.0%	12.5%	4.5%	3.0%	5.0%	5.5%	5.5%	8.0%	2.5%
SJW Corporation	NYSE	SJW	1795	4/09/2021	0.85	2.1%	1.0%	2.0%	5.5%	5.5%	2.0%	4.5%	7.0%	-0.5%	13.0%	6.0%	10.0%	6.0%	6.5%	12.5%	4.5%
York Water	NDQ	YORW	1796	4/09/2021	0.8	1.5%	3.0%	2.5%	4.0%	6.0%	5.5%	6.5%	6.0%	8.0%	6.5%	3.0%	4.0%	6.0%	4.5%	4.0%	4.0%
Minimum					0.65	1.40%	2.00%	0.50%	1.50%	2.00%	0.50%	2.00%	-3.00%	-4.50%	4.50%	3.00%	0.00%	5.50%	3.50%	2.00%	2.50%
Max Year																					
Mean					0.79	1.88%	3.00%	2.13%	5.50%	5.63%	4.69%	5.69%	6.13%	4.19%	8.81%	5.88%	6.19%	7.75%	5.88%	6.56%	4.06%
Median					0.83	1.75%	3.00%	2.00%	4.75%	5.75%	4.25%	6.50%	6.50%	5.75%	7.50%	5.50%	6.25%	7.00%	5.25%	5.00%	4.25%
Maximum					0.95	2.50%	5.00%	4.00%	12.00%	8.00%	10.50%	9.00%	10.50%	12.50%	15.00%	11.00%	11.50%	12.50%	9.50%	12.50%	5.50%

Capital Assets Pricing Model (CAPM) - The CAPM method estimates the cost of equity capital by quantifying the premium, or additional return required to entice investors to purchase equities, over an investment in which the investors would receive riskless return like that from a long-term U.S. government security.

The mathematical form of this model is:

Capital Asset Pricing Model

$$r_e = r_f + B_c(r_p) + r_s + r_i$$

where:

B_c is an estimation of the subject Company's risk premium relative to the risk premium of the entire market. In these equity cost estimating methods the risk premium of the entire market is defined as unity or B_m = 1.0.

The inputs to this model are developed from an analysis of the financial markets. The risk-free

government securities rate (rf) is readily available from financial sources; we have used the risk-free rate at the study date of 5.21% as determined from the average long-term income returns of government bonds over the period 1926 through 2020 as detailed on table A-7 in Ibbotson Associates' 2020 Yearbooks of Stocks, Bonds, Bills, and Inflation (SBBI).

The risk premiums (r_p) and size premiums (r_s) were established based on analysis of the data presented by Ibbotson Associates and published in Ibbotson Associates' 2010 through 2020 Yearbooks of Stocks, Bonds, Bills, and Inflation (SBBI), detailing the financial market returns of stocks, bonds, U.S. Treasury Bills, and Inflation for the period 1926 through 2020.

The total market risk premium (r_p) required to entice an investor to invest in equity securities over risk-free government securities was established at 6.60% based on the Ibbotson Associates research, while the size premiums (r_s) were established at:

1.99% for mid-capitalization companies with market equity capitalization between $2,444.7 and $13,177.8 million.

3.46% for low-capitalization companies with market equity capitalization between $451.8 and $2,444.7 million.

5.72% for micro-capitalization companies with market equity capitalization under $451.8 million.

There is no size premium (0.0%) for companies with market equity capitalization above $13,177.8 million.

Dividend Yield and Growth Model (DGM)

The dividend yield and growth model was also review in estimating the cost of equity. Two models were considered, those of:

re = Dividend Yield + Dividend Growth

re = Dividend Yield + Earnings Growth

Cost of Equity Conclusion - Based on these procedures the cost of equity using previous described cost of equity estimating techniques the cost of equity was determined as follows:

Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Cost of Equity Dividend Growth Model

Dividend 1.88% mean Col 7

Growth	Past 10 yrs	Past 5 yrs	Est'd 16-18 to 22-24	Beta
Revenues	3.00%	2.13%	5.56%	
Cash Flow	5.75%	4.69%	5.69%	
Earnings	6.13%	4.19%	8.81%	
Dividends	5.50%	5.19%	7.75%	
Book Value	5.25%	5.56%	4.06%	Input Min-Max
Mean	5.13%	4.75%	6.38%	0.79 0.65-0.95

Growth 6.38% AUS Input

Cost of Equity Dividend Growth Model

Dividend	1.88%
Growth	6.38%
Cost of Equity	8.25%

Cost of Equity Capital Asset Pricing Model (CAPM)

					Long term Government Bonds Income Return SBBI (Mean)
Risk Free Rate			5.21%	Input	
Risk Premium					
Beta			0.79		
Risk Premia	6.60%	Input SBBI	6.60%	Input	$r_p=r_m-r_f$ per PA PUC
Size Premia				$ Millions	$ Millions
Micro	5.72%	Input SBBI	-		451.8
Small	3.46%	Input SBBI	451.8		2,444.7
Mid	1.99%	Input SBBI	2,444.7		13,177.8
Large	0.00%	Input SBBI	13,177.8		
Size Premia			0.00%	Input	
Cost of Equity			10.41%		

Cost of Equity		
Dividend Growth Model	8.25%	
Capital Asset Pricing Model (CAPM)	10.41%	
Mean	9.33%	
Issuance Cost PUFT 2008-2019	3.60%	
Final Cost of Equity	9.68%	

Pennsylvania PUC 9.85%
Bureau of Technical Utility Services
Report on the Quarterly Earnings
of Jurisdictional Utilities
31-Dec-20

Cost of Equity	9.85%	AUS Input Jurisdictional Exception
Growth	6.38%	Input from Growth Above
Inflation	1.82%	SBBI Last 5-years

Equity issuance cost (f) of 3.60% was determined based on analysis annual Public Utility Financing Tracker reports over the period 2008 through 2019 published by PUFT, Inc. The final market cost of

equity of 9.33% was determined for the water industry using the following formula which incorporates the above-described issuance costs:

$K_e = K_{e'} / (100\% - f)$

where:

K_e =Cost of equity recognizing issuance costs

$K_{e'}$ is the market cost of equity without consideration of issuance costs (9.85%)

f is the cost of issuance as a percentage of the equity par value (3.60%)

$K_e = 9.33\% / (100\% - 3.60\%)$

$K_e = 9.68\%$

An equity cost of 9.85% was used in the determination of the cost of capital based on the determination of Pennsylvania PUC's Bureau of Technical Utility Services (TUS) Report on Quarterly Earnings of Jurisdictional Utilities for year-ending December 31, 2020.

Tax Rate

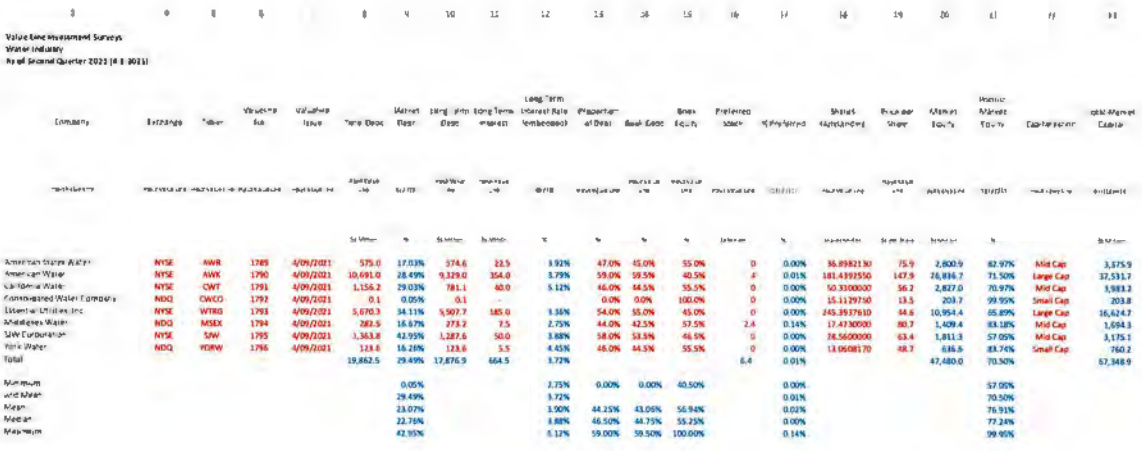
The tax rate was determined at 28.89% (State and Federal) based on the Value Line Investment Survey as follows:

1	2	3	4	5				
Value Line Investment Surveys								
Water Industry								
As of Second Quarter 2021 (4-1-2021)								
					Tax Rate			
Company	Exchange	Ticker	Valueline No.	Valueline Issue	2019	2020	2021	Future 3 Years
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	1789	4/09/2021	22.6%	24.6%	23.0%	23.0%
American Water	NYSE	AWK	1790	4/09/2021	25.5%	23.3%	23.5%	24.0%
California Water	NYSE	CWT	1791	4/09/2021	19.1%	11.1%	21.0%	21.0%
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021				
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	6.6%	6.6%	5.0%	8.0%
Middlesex Water	NDQ	MSEX	1794	4/09/2021	2.8%	2.8%	21.0%	21.0%
SJW Corporation	NYSE	SJW	1795	4/09/2021	25.3%	12.0%	21.0%	21.0%
York Water	NDQ	YORW	1796	4/09/2021	13.5%	18.5%	21.0%	21.0%
Minimum					2.80%	2.80%	5.00%	8.00%
wtd Mean								
Mean					16.49%	14.13%	19.36%	19.86%
Median					19.10%	12.00%	21.00%	21.00%
Maximum					25.50%	24.60%	23.50%	24.00%

	Historical		Current	
Embedded Tax Rate	16.49%	Mean 2019	14.13%	Mean 2020
Federal Tax Rate (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
Composite Federal and State Tax Rate	41.49%	Calculated =Federal Tax * (1-State Tax)+State Tax	28.89%	Calculated =Federal Tax * (1-State Tax)+State Tax

Capital Structure

The capital structure was determined based on the water industry market indictors published by Value Line Investment Survey published April 1, 2021 as detailed as follows:



Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Company	Exchange	Ticker	Value Line No.	Value Line Issue	Long-Term Debt	Market Debt	Long-Term Debt	Long-Term Interest	Long-Term Interest Rate (embedded)	Proportion of Debt	Book Equity	Book Equity	Preferred Stock	% Preferred	Shares Outstanding	Price per Share	Market Equity	Implied Market Equity	Capitalization	Total Market Capital
					$ Mil	%	$ Mil	$ Mil	%	%	%	%	Dollars	%				$		$ Mil
American States Water	NYSE	AWR	1789	4/09/2021	575.0	17.03%	574.6	22.5	3.92%	47.0%	45.0%	55.0%	0	0.00%	36.898213	75.9	2,800.9	62.97%	Mid Cap	3,375.9
American Water	NYSE	AWK	1790	4/09/2021	10,691.0	28.49%	9,329.0	354.0	3.79%	59.0%	59.5%	40.5%	4	0.01%	181.4392550	147.9	26,836.7	71.50%	Large Cap	37,531.7
California Water	NYSE	CWT	1791	4/09/2021	1,156.2	29.03%	781.1	40.0	5.12%	46.0%	44.5%	55.5%	0	0.00%	50.3300000	56.2	2,827.0	70.97%	Mid Cap	3,983.2
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021	0.1	0.05%	0.1	-		0.0%	0.0%	100.0%	0	0.00%	15.1129750	13.5	203.7	99.95%	Small Cap	203.8
Essential Utilities Inc	NYSE	WTRG	1793	4/09/2021	5,670.3	34.11%	5,507.7	185.0	3.36%	54.0%	55.0%	45.0%	0	0.00%	245.3937610	44.6	10,954.4	65.89%	Large Cap	16,624.7
Middlesex Water	NDQ	MSEX	1794	4/09/2021	282.5	16.67%	273.2	7.5	2.75%	44.0%	42.5%	57.5%	2.4	0.14%	17.4230000	80.7	1,409.4	83.18%	Mid Cap	1,694.3
SJW Corporation	NYSE	SJW	1795	4/09/2021	1,363.8	42.95%	1,287.6	50.0	3.88%	58.0%	58.5%	46.5%	0	0.00%	24.5600000	63.4	1,811.3	57.05%	Mid Cap	3,175.1
York Water	NDQ	YORW	1796	4/09/2021	123.6	16.26%	123.6	5.5	4.45%	48.0%	44.5%	55.5%	0	0.00%	13.0508170	48.7	636.6	83.74%	Small Cap	760.2
Total					19,862.5	29.49%	17,876.9	664.5	3.72%				6.4	0.01%			47,480.0	70.50%		67,348.9
Minimum						0.05%			2.75%	0.00%	0.00%	40.50%		0.00%				57.05%		
Weighted						29.49%			3.72%					0.01%				70.50%		
Mean						23.07%			3.90%	44.25%	43.05%	56.94%		0.02%				76.91%		
Median						22.76%			3.88%	46.50%	44.75%	55.25%		0.00%				77.24%		
Maximum						42.95%			5.12%	59.00%	59.50%	100.00%		0.14%				99.95%		

In arriving at the capital structure, the market capital structure was used in developing the market cost of capital while an embedded capital structure was used in developing the required return on rate base as follows:

Water Industry Capital Structure

Capital Structure	Market Proportion	Market Reference	Embedded Proportion	Embedded Reference
Debt	29.49%	wtd mean col 7	44.25%	mean col 11
Preferred	0.01%	wtd mean col 15	0.02%	mean col 15
Equity	70.50%	wtd mean col 19	56.94%	mean col 13
Total	100.00%		101.21%	
Use				
Debt	29%	AUS Input	44%	AUS Input Jurisdictional Execption
Equity	71%	AUS Input	56%	AUS Input Jurisdictional Execption
Total	100%		100%	

Market Cost of Capital and Required Return on Rate Base

Using the above-described cost of debt and equity, the rate of returned required for an investment in property similar to the Company's was determined to be 7.62% as follows:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input:	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.52%	Market	28.89%	71.11%	0.73%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	100.0%						7.72%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.79%

While the require return on rate base was determined to be 7.16% follows:

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capita AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	100.0%						7.16%
Growth (g)						Not Applicable	0.00%
Rate without Growth: [(1+r)/(1+g)]-1							7.16%

The statistics supporting these findings can be found in the Cost of Capital section of this report.

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Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	29%	Market	3.06%	Market	28.89%	71.11%	0.63%
Equity	71%	Market	9.85%	Market	0.0%	100.0%	6.99%
Total Capital r	100.0%						7.62%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.69%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

Weighted Cost of Capital (Capitlization 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	Market Capital Cost (2)*(3)
Debt	29%	Market	3.06%	Market	Not Applicable	Not Applicable	0.89%
Equity	71%	Market	9.85%	Market	Not Applicable	Not Applicable	6.99%
Total Capital r	100.0%						7.88%
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							5.95%

Water and Wastewater Cost of Capital
Second Quarter 2021 (04-01-2021)

As an Investor-Owned Utility

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

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	44%	Embedded	3.72%	Embedded	Not Applicable	Not Applicable	1.64%
Equity	56%	Embedded	9.85%	Market	Not Applicable	Not Applicable	5.52%
Total Capital r	100.0%						7.16%
Growth (g)						Not Applicable	0.00%
Rate without Growth: [(1+r)/(1+g)]-1							7.16%

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1	2	3	4	5
Value Line Investment Surveys				
Water Industry				
As of Second Quarter 2021 (4-1-2021)				
	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		574.6	22.5	3.92%
American Water	Baa1	9,329.0	354.0	3.79%
California Water		781.1	40.0	5.12%
Consolidated Water Company		0.1	-	
Essential Utilities, Inc.	Baa2	5,507.7	185.0	3.36%
Middlesex Water		273.2	7.5	2.75%
SJW Corporation		1,287.6	50.0	3.88%
York Water		123.6	5.5	4.45%
		17,876.9	664.5	3.72%
Minimum				2.75%
wtd Mean				3.72%
Mean				3.90%
Median				3.88%
Maximum				5.12%

Debt Rating and Cost of Debt

Embedded	3.72%	wtd mean col 5
Rating (S&P)	A	Input
Market Cost of Debt @Bond Rating		
Value Line Selected Yields	3.49%	Input
Use	3.49%	AUS Input
Issuance Cost PUFT Data 2018-2019	0.90%	Input
Final Cost of Debt	3.52%	

Value Line Analysis

Appendix A-5-1 (AUS)

Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Company	Exchange	Ticker	Valuation No.	Valuation Issue	Beta	Dividend	Revenue Past 10 yrs	Revenue Past 5 yrs	Revenue Past 5 Years to Future 3 Years	Cash Flows Past 10 yrs	Cash Flows Past 5 yrs	Cash Flows Past 5 Years to Future 3 Years	Earnings Past 10 yrs	Earnings Past 5 yrs	Earnings Past 5 Years to Future 3 Years	Dividends Past 10 yrs	Dividends Past 5 yrs	Dividends Past 5 Years to Future 3 Years	Book Value Past 10 yrs	Book Value Past 5 yrs	Book Value Past 5 Years to Future 3 Years
American States Water	NYSE	AWR	1789	4/09/2021	0.65	1.9%	2.5%	0.5%	5.0%	5.5%	3.0%	7.0%	9.0%	5.5%	6.5%	8.5%	7.5%	9.5%	5.5%	5.0%	5.5%
American Water	NYSE	AWK	1790	4/09/2021	0.85	1.6%	3.0%	3.5%	4.5%	8.0%	7.0%	6.5%	10.5%	8.0%	8.5%	11.0%	11.5%	8.5%	3.5%	4.5%	5.0%
California Water	NYSE	CWT	1791	4/09/2021	0.65	1.6%	3.5%	4.0%	1.5%	6.0%	8.0%	2.0%	5.0%	8.0%	6.5%	3.0%	4.0%	6.5%	5.0%	5.0%	4.0%
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021	0.85	2.5%	5.0%	0.5%	12.0%	2.0%	0.5%	9.0%	-3.0%	-4.5%	15.0%	5.0%	0.0%	12.5%	5.0%	2.0%	2.5%
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	0.95	2.4%	2.0%	2.0%	10.0%	4.5%	1.0%	6.5%	5.5%	-1.5%	10.0%	7.5%	7.5%	7.5%	9.5%	11.5%	4.5%
Middlesex Water	NDQ	MSEX	1794	4/09/2021	0.7	1.4%	2.0%	2.0%	2.0%	7.5%	10.5%	3.5%	9.0%	12.5%	4.5%	3.0%	5.0%	5.5%	5.5%	8.0%	2.5%
SJW Corporation	NYSE	SJW	1795	4/09/2021	0.85	2.1%	3.0%	2.0%	5.5%	5.5%	2.0%	4.5%	7.0%	-0.5%	13.0%	6.0%	10.0%	6.0%	8.5%	12.5%	4.5%
York Water	NDQ	YORW	1796	4/09/2021	0.8	1.5%	3.0%	2.5%	4.0%	6.0%	5.5%	6.5%	6.0%	6.0%	6.5%	3.0%	4.0%	6.0%	4.5%	4.0%	4.0%
Minimum					0.65	1.40%	2.00%	0.50%	1.50%	2.00%	0.50%	2.00%	-3.00%	-4.50%	4.50%	3.00%	0.00%	5.50%	3.50%	2.00%	2.50%
Wtd Mean																					
Mean					0.79	1.88%	3.00%	2.13%	5.56%	5.63%	4.69%	5.69%	6.13%	4.19%	8.81%	5.88%	6.19%	7.75%	5.88%	6.56%	4.06%
Median					0.83	1.75%	3.00%	2.00%	4.75%	5.75%	4.25%	6.50%	6.50%	5.75%	7.50%	5.50%	6.25%	7.00%	5.25%	5.00%	4.25%
Maximum					0.95	2.50%	5.00%	4.00%	12.00%	8.00%	10.50%	9.00%	10.50%	12.50%	15.00%	11.00%	11.50%	12.50%	9.50%	12.50%	5.50%

Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Cost of Equity Dividend Growth Model

Cost of Equity Capital Asset Pricing Model (CAPM)

Dividend 1.88% [illegible]

Growth	Past 10 yrs	Past 5 yrs	Est'd to [illegible]	Beta	
Revenues	3.00%	2.13%	5.56%		
Cash Flow	5.75%	4.69%	5.69%		
Earnings	6.13%	4.19%	8.81%		
Dividends	5.50%	6.19%	7.75%		
Book Value	5.25%	6.56%	4.06%	Input	Min Max
Mean	5.13%	4.75%	6.38%	0.79	0.65-0.95

Growth 6.38% AUS Input

Cost of Equity Dividend Growth Model

Dividend	1.88%
Growth	6.38%
Cost of Equity	8.25%

Cost of Equity Capital Asset Pricing Model (CAPM)

					Long-term Government Bonds Income Return [illegible] (Mean)
Risk Free Rate			5.2[illegible]%	Input	
Risk Premium					
Beta			0.79		
Risk Premium	6.60%	[illegible]	6.60%	Input	[illegible]
Size Premium				$ Million	$ Millions
Micro	5.72%	[illegible]			451.8
Small	3.46%	[illegible]		451.8	2,444.7
Mid	1.19%	[illegible]		2,444.7	13,177.8
Large	0.00%	[illegible]		13,177.8	
Size Premium			0.00%	Input	
Cost of Equity			10.41%		

Cost of Equity	
Dividend Growth Model	8.25%
Capital Asset Pricing Model (CAPM)	10.41%
Mean	9.33%
Issuance Cost [illegible] 2008 [illegible]	3.60%
Final Cost of Equity	9.68%

Pennsylvania PUC 4.85%
Bureau of Technical Utility Services
Report on the Quarterly Earnings
of Jurisdictional Utilities
[illegible] Dec. [illegible]

Cost of Equity	9.85%	AUS Input [illegible]
Growth	6.38%	Input from Growth Above
Inflation	1.82%	[illegible] Last 5 years

Value Line Analysis

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1	2	3	4	5	6	7	8	9	10

Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Company	Exchange	Ticker	Valueline No.	Valueline Issue	Total Return				
					1 year	3 Years	3 years annualized	5 Years	5 years annualized
Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Calculation	Input Value Line	Calculation
							=((1+3 year Total Return)^(1/3))-1		=((1+5 year Total Return)^(1/5))-1
American States Water	NYSE	AWR	1789	4/09/2021	-3.0%	43.9%	12.9%	88.1%	13.5%
American Water	NYSE	AWK	1790	4/09/2021	16.5%	87.7%	23.4%	139.3%	19.1%
California Water	NYSE	CWT	1791	4/09/2021	16.6%	51.7%	14.9%	142.7%	19.4%
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021	-17.7%	11.2%	3.6%	35.0%	6.2%
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	0.0%	31.0%	9.4%	53.8%	9.0%
Middlesex Water	NDQ	MSEX	1794	4/09/2021	17.2%	103.1%	26.6%	168.7%	21.9%
SJW Corporation	NYSE	SJW	1795	4/09/2021	4.5%	24.8%	7.7%	89.0%	13.6%
York Water	NDQ	YORW	1796	4/09/2021	0.0%	56.3%	16.1%	64.3%	10.4%
Total					4.3%		14.3%		14.1%
Minimum					-17.70%		3.60%		6.19%
wtd Mean									
Mean					4.26%		14.32%		14.12%
Median					2.25%		13.90%		13.52%
Maximum					17.20%		26.64%		21.86%

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1	2	3	4	5				
Value Line Investment Surveys								
Water Industry								
As of Second Quarter 2021 (4-1-2021)								
Company	Exchange	Ticker	Valueline No.	Valueline Issue	Tax Rate			
					2019	2020	2021	Future 3 Years
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	1789	4/09/2021	22.6%	24.6%	23.0%	23.0%
American Water	NYSE	AWK	1790	4/09/2021	25.5%	23.3%	23.5%	24.0%
California Water	NYSE	CWT	1791	4/09/2021	19.1%	11.1%	21.0%	21.0%
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021				
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	6.6%	6.6%	5.0%	8.0%
Middlesex Water	NDQ	MSEX	1794	4/09/2021	2.8%	2.8%	21.0%	21.0%
SJW Corporation	NYSE	SJW	1795	4/09/2021	25.3%	12.0%	21.0%	21.0%
York Water	NDQ	YORW	1796	4/09/2021	13.5%	18.5%	21.0%	21.0%
Minimum					2.80%	2.80%	5.00%	8.00%
wtd Mean								
Mean					16.49%	14.13%	19.36%	19.86%
Median					19.10%	12.00%	21.00%	21.00%
Maximum					25.50%	24.60%	23.50%	24.00%
	Historical		Current					
Embedded Tax Rate	16.49%	Mean 2019	14.13%	Mean 2020				
Federal Tax Rate (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				
Composite Federal and State Tax Rate	41.49%	Calculated =Federal Tax * (1-State Tax)+State Tax	28.89%	Calculated =Federal Tax * (1-State Tax)+State Tax				

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Value Line Investment Surveys
Water Industry
As of Second Quarter 2021 (4-1-2021)

Company	Exchange	Ticker	Valueline No.	Valueline Issue	Total Debt	Market Debt	Long Term Debt	Long Term Interest	Long Term Interest Rate (embeddec)	Proportion of Debt	Book Debt	Book Equity	Preferred Stock	% Preferred	Shares Outstanding	Price per Share	Market Equity	Portion Market Equity	Capitalization	Total Market Capital
Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	Input Value Line	(6) / (21)	Input Value Line	Input Value Line	(9) / (8)	Input Value Line	Input Value Line	Input Value Line	Input Value Line	(14) / (21)	Input Value Line	Input Value Line	Input Value Line	(18) / (21)	Input Value Line	(6)+(14)+(18)
					$s Million	%	$s Million	$s Million	%	%	%	%	$s Million	%	Shares Million	$s per Share	$s Million	%		$s Million
American States Water	NYSE	AWR	1789	4/09/2021	575.0	17.03%	574.6	22.5	3.92%	47.0%	45.0%	55.0%	0	0.00%	36.8982130	75.9	2,800.9	82.97%	Mid Cap	3,375.9
American Water	NYSE	AWK	1790	4/09/2021	10,691.0	28.49%	9,329.0	354.0	3.79%	59.0%	59.5%	40.5%	4	0.01%	181.4392550	147.9	26,836.7	71.50%	Large Cap	37,531.7
California Water	NYSE	CWT	1791	4/09/2021	1,156.2	29.03%	781.1	40.0	5.12%	46.0%	44.5%	55.5%	0	0.00%	50.3300000	56.2	2,827.0	70.97%	Mid Cap	3,983.2
Consolidated Water Company	NDQ	CWCO	1792	4/09/2021	0.1	0.05%	0.1	-		0.0%	0.0%	100.0%	0	0.00%	15.1129750	13.5	203.7	99.95%	Small Cap	203.8
Essential Utilities, Inc.	NYSE	WTRG	1793	4/09/2021	5,670.3	34.11%	5,507.7	185.0	3.36%	54.0%	55.0%	45.0%	0	0.00%	245.3937610	44.6	10,954.4	65.89%	Large Cap	16,624.7
Middlesex Water	NDQ	MSEX	1794	4/09/2021	282.5	16.67%	273.2	7.5	2.75%	44.0%	42.5%	57.5%	2.4	0.14%	17.4730000	80.7	1,409.4	83.18%	Mid Cap	1,694.3
SJW Corporation	NYSE	SJW	1795	4/09/2021	1,363.8	42.95%	1,287.6	50.0	3.88%	58.0%	53.5%	46.5%	0	0.00%	28.5600000	63.4	1,811.3	57.05%	Mid Cap	3,175.1
York Water	NDQ	YORW	1796	4/09/2021	123.6	16.26%	123.6	5.5	4.45%	46.0%	44.5%	55.5%	0	0.00%	13.0608170	48.7	636.6	83.74%	Small Cap	760.2
Total					19,862.5	29.49%	17,876.9	664.5	3.72%				6.4	0.01%			47,480.0	70.50%		67,348.9
Minimum						0.05%			2.75%	0.00%	0.00%	40.50%		0.00%				57.05%		
wtd Mean						29.49%			3.72%					0.01%				70.50%		
Mean						23.07%			3.90%	44.25%	43.06%	56.94%		0.02%				76.91%		
Median						22.76%			3.88%	46.50%	44.75%	55.25%		0.00%				77.24%		
Maximum						42.95%			5.12%	59.00%	59.50%	100.00%		0.14%				99.95%		

Water Industry Capital Structure

Capital Structure	Market Proportion	Market Reference	Embedded Proportion	Embedded Reference
Debt	29.49%	wtd mean col 7	44.25%	mean col 11
Preferred	0.01%	wtd mean col 15	0.02%	mean col 15
Equity	70.50%	wtd mean col 19	56.94%	mean col 13
Total	100.00%		101.21%	
Use				
Debt	29%	AUS Input	44%	AUS Input Jurisdictional Execption
Equity	71%	AUS Input	56%	AUS Input Jurisdictional Execption
Total	100%		100%	

Appendix A-5-1 (AUS)

S:\Cap Rate\2021 Report Telephone\2021 Cost of Capital Report\AUS Cap Rate 2021

Decile	Recent Number of Companies	Min Size $1,000s	Max Size $1,000s	Arithmetic Mean (%)	Beta	Size Premium S&P 500	Risk Premium Beta Adjusted	Size Premium
1	191	29,025,803,000	1,966,078,882,000	11.06%	0.92	-0.75%	6.60%	-0.75%
2	186	13,178,743,000	28,808,073,000	12.82%	1.04	1.01%	6.60%	1.01%
3	210	6,743,361,000	13,177,828,000	13.66%	1.11	1.85%	6.60%	1.85%
4	218	3,861,858,000	6,710,676,000	13.67%	1.13	1.86%	6.60%	1.86%
5	255	2,445,693,000	3,836,536,000	14.19%	1.17	2.68%	6.60%	2.68%
6	246	1,591,865,000	2,444,745,000	14.82%	1.18	3.01%	6.60%	3.01%
7	306	911,586,000	1,591,765,000	15.63%	1.26	3.82%	6.60%	3.82%
8	365	451,955,000	911,103,000	15.91%	1.31	4.10%	6.60%	4.10%
9	412	190,019,000	451,800,000	16.69%	1.34	4.88%	6.60%	4.88%
10 - Smallest	569	2,194,000	189,831,000	19.64%	1.40	7.86%	6.60%	7.86%
Total	2,958							
Large-Cap 1-2	385	13,178,743,000	1,966,078,882,000	11.32%	0.94	-0.48%	6.60%	-0.74%
Mid-Cap 3-5	683	2,445,693,000	13,177,828,000	13.80%	1.13	1.99%	6.60%	1.99%
Low Cap 6-8	917	451,955,000	2,444,745,000	15.27%	1.23	3.46%	6.60%	3.46%
Micro-Cap 9-10	981	2,194,000	451,800,000	17.53%	1.35	5.72%	6.60%	5.72%
	2,966		1,982,153,255,000					
1-5	1,068	2,445,693,000	1,966,078,882,000	11.64%	0.96	-0.17%	6.60%	-0.17%
6-10	1,898	2,194,000	2,444,745,000	15.49%	1.24	3.68%	6.60%	3.68%

2021 Business Valuation Resources, LLC

Historiacl Return 1928-2020	11.81%
10-Year T Bond Average Annual Return	5.21%
Risk Premium	6.60%

Appendix A-5-1 (AUS)

BVR
What It's Worth

Cost of Capital Professional

Screen & Export

RECENT SAVE RESET

User Input Download User References

Specify search criteria

Company Name
AUS Consultants

Valuation Date
12/31/2020

Returns Reference – Start Year
EARLIEST YEAR YYYY

Returns Reference – End Year
2020

Returns Calculation - Mean
- (•) Arithmetic
- ( ) Geometric

RFR ERP Size Premium IRP CoE WACC Summary

	Firms			Portfolio		Size Premium	
Decile	Count	Min size ('000)	Max Size ('000)	Annual Return	Beta	S&P 500	Beta Adjusted
1 - Largest	199	$29,025,803	$1,966,078,882	11.06%	0.92	(0.75%)	

2	186	$13,178,743	$28,808,073	12.82%	1.04	1.01%
3	210	$6,743,361	$13,177,828	13.66%	1.11	1.85%
4	218	$3,861,858	$6,710,676	13.67%	1.13	1.86%
5	255	$2,445,693	$3,836,536	14.49%	1.17	2.68%
6	246	$1,591,865	$2,444,745	14.82%	1.18	3.01%
7	306	$911,586	$1,591,765	15.63%	1.26	3.82%
8	365	$451,955	$911,103	15.91%	1.31	4.10%
9	412	$190,019	$451,800	16.69%	1.34	4.88%
10 - Smallest	569	$2,194	$189,831	19.64%	1.40	7.83%
1 through 2	385	$13,178,743	$1,966,078,882	11.32%	0.94	(0.48%)
3 through 5	683	$2,445,693	$13,177,828	13.80%	1.13	1.99%
6 through 8	917	$451,955	$2,444,745	15.27%	1.23	3.46%
9 through 10	981	$2,194	$451,800	17.53%	1.35	5.72%
1 through 5	1,068	$2,445,693	$1,966,078,882	11.64%	0.96	(0.17%)
6 through 10	1,898	$2,194	$2,444,745	15.49%	1.24	3.68%

S&P 500 Annual Return for Period 1928 - 2020 : 11.81%

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User Input Download User References

Specify search criteria

Company Name
AUS Consultants

Valuation Date
12/31/2020

Returns Reference – Start Year
EARLIEST YEAR YYYY

Returns Reference – End Year
2020

Returns Calculation - Mean
(•) Arithmetic
( ) Geometric

RFR ERP Size Premium IRP CoE WACC Summary

CRSP Equity Risk Premium

6.60%	Historical ERP (10Y T-Bond) – For Period:	1928-2020
	S&P 500 Average Annual Return:	11.81%
	10-Year T-Bond Average Annual Return:	5.21%
	(Damodaran)	

Appendix A-5-1 (AUS)

5.90%	Historical ERP (20Y T-Bond) – For Period:	1928-2020
	S&P 500 Average Annual Return:	11.81%
	20-Year T-Bond Average Annual Return (Reconstructed):	5.91%

Dr. Damodaran Equity Risk Premium

6.50%	Implied ERP - As of:	2020
6.72%	Implied ERP With Sustainable Payout - As of:	2020
6.43%	Historical ERP -- For Period:	1928-2020
	S&P 500 Average Annual Return:	11.64%
	10-Year T-Bond Average Annual Return:	5.21%

Custom Equity Risk Premium

0.00%	Add Notes Here

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Specify search criteria

Company Name
AUS Consultants

Valuation Date
12/31/2020

Returns Reference – Start Year
EARLIEST YEAR YYYY

Returns Reference – End Year
2020

Returns Calculation - Mean
(•) Arithmetic
( ) Geometric

RFR ERP Size Premium IRP CoE WACC Summary

Treasury Constant Maturity Rate

0.93%	10-Year Maturity - As of:	12/31/2020
1.45%	20-Year Maturity - As of:	12/31/2020

Custom Risk Free Rate

0.00% Add Notes Here

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PENNSYLVANIA PUBLIC UTILITY COMMISSION

Public Meeting held May 6, 2021

Docket Number: M-2021-3025288

BUREAU OF TECHNICAL UTILITY SERVICES

REPORT ON THE QUARTERLY EARNINGS

OF JURISDICTIONAL UTILITIES

FOR THE YEAR ENDED

December 31, 2020

Gladys Brown Dutrieuille, Chairman
David W. Sweet, Vice Chairman
John F. Coleman, Jr., Commissioner
Ralph V. Yanora, Commissioner

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Page No.

Introduction:

On September 20, 1991, the Commission initiated a rulemaking at L-00910061 pertaining to earnings disclosures by the public utilities subject to its jurisdiction. At that docket, the Commission stated that the submission of accurate, reliable and complete earnings disclosure reports, at regular intervals, is essential to the fulfillment of the broad regulatory oversight responsibilities entrusted to the Commission by the Legislature in the Public Utility Code. The earnings disclosure regulations promulgated by the Commission were adopted October 1, 1992, and published January 23, 1993, at 23 Pa.B. 463. Based upon those regulations, codified at 52 Pa. Code, Chapter 71, a reporting format was developed and distributed to the jurisdictional fixed utilities of Pennsylvania.

All fixed utilities having jurisdictional revenues of $1,000,000 or more, for a calendar year, are required to file the report by March 31 of each year. Such reports are to be based upon the results of operations for the 12-month period ending December 31 of the prior year. Utilities having more than $10,000,000 in jurisdictional revenues are also required to file reports for the 12 months ending on March 31, June 30, and September 30 of each year. On November 30, 2004, however, the Pennsylvania General Assembly signed into law Act 183 concerning alternative telecommunications regulation and broadband deployment. As a result of Act 183, the reporting requirements for the PUC jurisdictional telecommunications companies of Pennsylvania have been streamlined at section 3015(e) of the Public Utility Code. A quarterly earnings report is not listed among those reports now required of PUC jurisdictional telecommunications utilities in Pennsylvania and, therefore, this report does not address telephone company earnings.

The reports have been filed for the period ended December 31, 2020.[1] The Finance Staff of the Bureau of Technical Utility Services has reviewed the reports and has prepared this summary report for public release. This report sets forth the achieved return on equity for each company, the last allowed return for that utility, a market return as determined through the analysis of the barometer group data and the most recent returns allowed, per industry, by the Pennsylvania Public Utility Commission and by other regulatory bodies. Where a utility has not filed a report, the reasons for not filing are indicated.

Questions pertaining to the preparation and contents of this Report should be directed to Ms. Erin Laudenslager, Manager - Finance, Bureau of Technical Utility Services, at (717) 705-4364.

[1] UGI Utilities, Inc. – Electric Division, PECO Energy Company – Gas Operations, Columbia Gas of Pennsylvania, Inc., and UGI Utilities, Inc. – Gas Division have rate filings at Docket Nos. R-2021-3023618, R-2020-3018929, R-2020-3018835, and R-2019-3015162 respectively, and filed a letter with the Secretary in place of a report in accordance with 52 Pa. Code § 71.4.

The equity return summaries that follow in Attachment A are, for each quarter;

ACTUAL

1. Based on actual results of operations

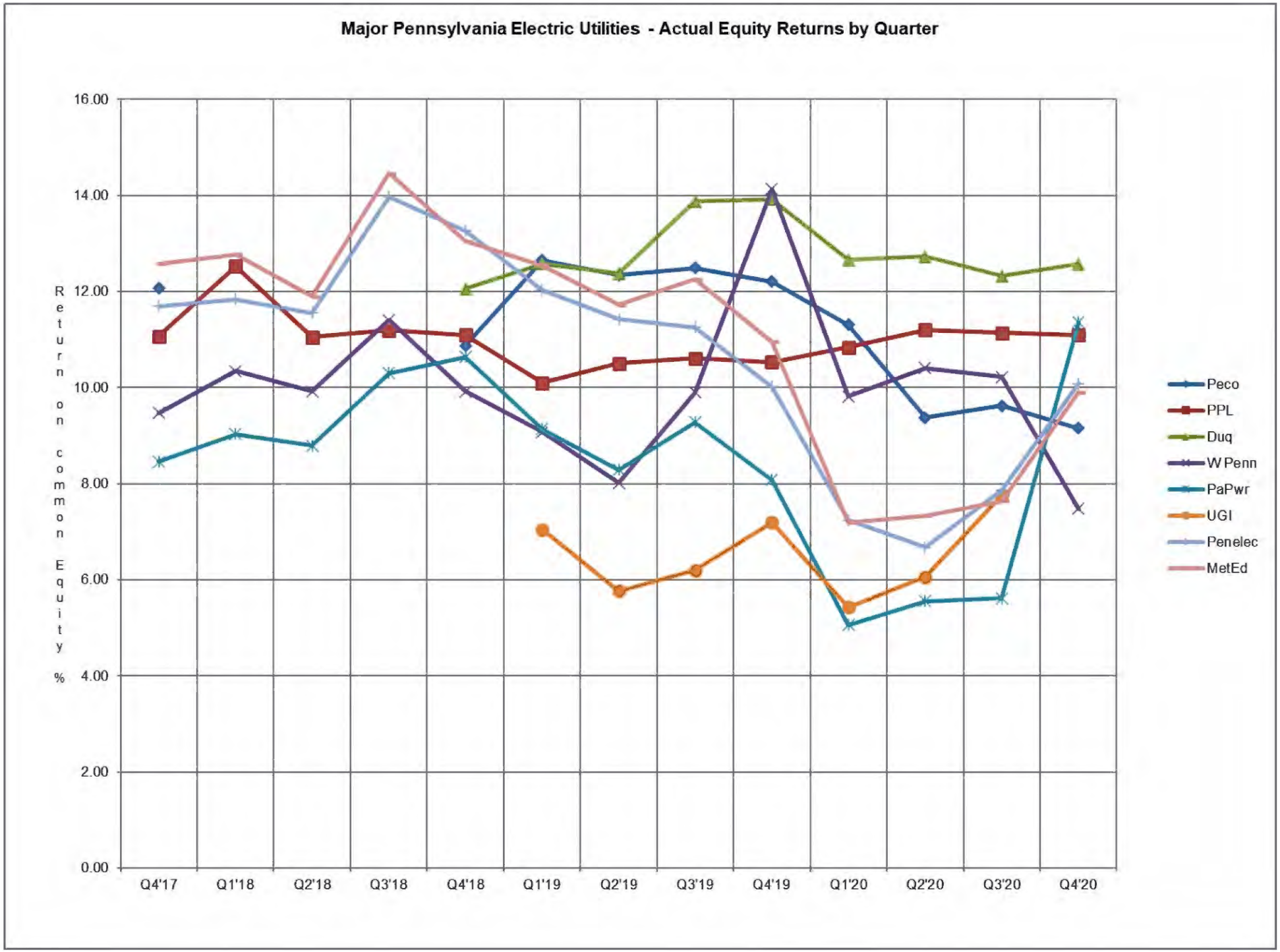
and

ADJUSTED

2. Based on company proposed pro forma and ratemaking adjustments

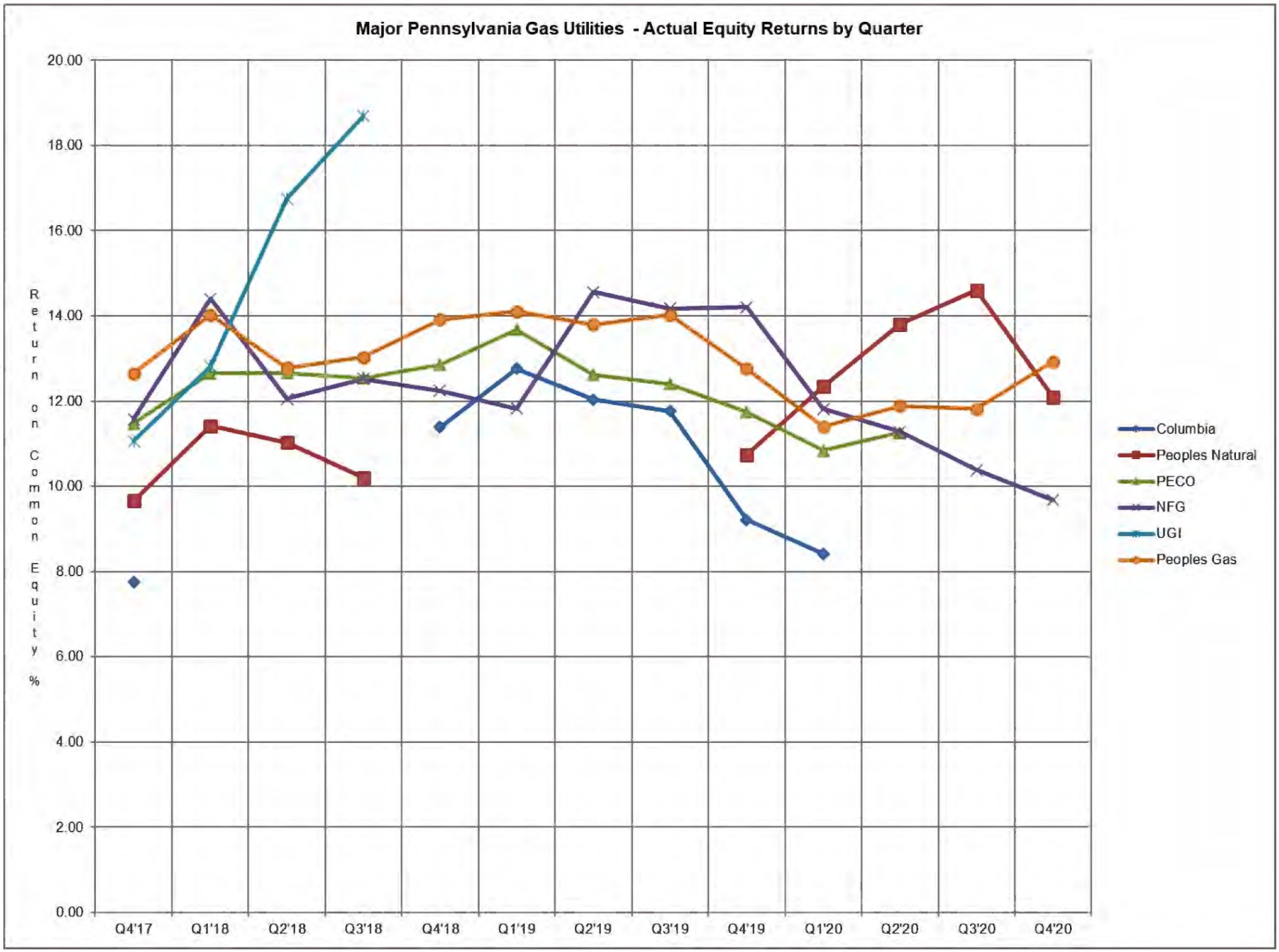
ELECTRIC UTILITIES
EQUITY RETURNS BY QUARTER

QTR		PECO		PPL		Duq		W Penn		PaPwr		UGI		Penelec		MetEd	
END		ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ
2015	1					10.08	9.65					10.88	10.39				
	2					9.80	9.42					13.57	9.49				
	3					10.11	9.73	6.45	6.45	5.77	5.77	15.93	7.57	2.94	2.94	3.69	3.69
	4	10.74	8.84	8.89	8.48	9.73	9.36	8.09	8.09	5.13	5.13	9.74	9.21	5.45	5.45	7.04	7.04
2016	1	10.86	9.74	7.75	6.94	9.87	9.89					10.41	8.69				
	2	11.46	10.15	9.15	8.51	9.57	9.47					8.29	8.10				
	3	13.42	11.44	10.15	9.59	10.12	9.46					19.18	6.99				
	4	12.52	10.65	10.45	10.29	9.71	9.01					26.07	7.30				
2017	1	13.01	11.40	9.76	8.49	9.53	8.99					22.86	6.81				
	2	12.98	11.40	10.71	9.70	9.86	9.24	8.23	7.38	7.32	7.97	21.96	6.74	9.23	9.20	9.74	9.35
	3	12.84	10.52	10.15	9.30	9.53	9.23	7.63	7.24	8.32	9.08	16.13	5.22	9.61	9.50	11.37	10.97
	4	12.07	9.11	11.07	10.63			9.47	9.12	8.46	8.19			11.70	10.93	12.58	11.67
2018	1			12.53	11.36			10.35	9.08	9.03	8.08			11.84	9.93	12.77	11.38
	2			11.05	9.49			9.92	8.52	8.79	7.57			11.56	9.39	11.90	10.26
	3			11.19	9.83			11.41	6.74	10.30	5.80			13.97	8.44	14.46	9.62
	4	10.88	7.61	11.10	10.15	12.06	9.39	9.92	6.78	10.64	7.43			13.27	9.31	13.05	7.40
2019	1	12.65	7.93	10.10	8.96	12.58	9.73	9.08	6.62	9.14	7.61	7.05	5.22	12.03	8.07	12.54	7.66
	2	12.34	7.94	10.51	8.95	12.38	9.34	8.02	5.99	8.29	7.10	5.77	3.22	11.42	8.16	11.72	7.21
	3	12.49	7.96	10.61	8.99	13.88	9.33	9.90	7.87	9.28	7.76	6.20	2.04	11.26	8.78	12.25	7.77
	4	12.21	8.50	10.53	10.40	13.92	9.08	14.13	7.07	8.08	6.90	7.20	2.38	10.02	8.54	10.96	9.27
2020	1	11.31	8.35	10.84	11.20	12.66	8.31	9.82	5.54	5.06	6.71	5.43	2.26	7.24	8.74	7.20	8.31
	2	9.38	8.17	11.20	10.81	12.73	8.56	10.41	5.53	5.56	6.55	6.06	2.01	6.68	7.94	7.34	8.04
	3	9.62	8.56	11.14	11.20	12.32	8.08	10.22	5.42	5.62	6.74	7.76	0.41	7.87	8.75	7.64	8.37
	4	9.16	7.64	11.10	11.48	12.57	8.15	7.48	5.65	11.36	7.34			10.08	8.62	9.91	8.64


Major Pennsylvania Electric Utilities - Actual Equity Returns by Quarter
Return on common Equity %
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Q4'17
Q1'18
Q2'18
Q3'18
Q4'18
Q1'19
Q2'19
Q3'19
Q4'19
Q1'20
Q2'20
Q3'20
Q4'20
Peco
PPL
Duq
W Penn
PaPwr
UGI
Penelec
MetEd

GAS UTILITIES
EQUITY RETURNS BY QUARTER

QTR		Columbia		Peoples Natural		PECO		NFG		UGI		Peoples Gas	
END		ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ
2015	1			14.22	7.90	14.60	13.01	20.17	10.31	15.76	7.87	16.36	11.23
	2			14.37	8.88	13.89	12.32	18.82	10.39	14.07	7.62	16.15	12.90
	3			13.55	8.14	13.29	11.77	16.41	10.27	15.67	6.51	15.69	12.58
	4	9.75	9.73	8.80	9.83	12.50	12.70	15.01	10.59			12.71	12.14
2016	1			7.01	10.02	10.73	13.58	12.60	10.97			8.54	10.48
	2			6.24	9.99	11.55	13.85	12.31	11.08			9.20	10.43
	3			6.93	9.34	12.09	14.40	13.00	10.34			9.07	12.02
	4	8.90	9.26	10.11	11.03	11.39	12.37	14.18	9.58			12.47	11.87
2017	1	10.52	10.17	9.96	9.27	11.45	12.55	12.84	9.26	21.08	10.09	11.82	12.34
	2	9.15	9.81	9.41	9.71	10.87	12.17	13.33	10.53	19.16	9.44	11.89	13.47
	3	8.15	8.77	6.69	6.40	11.26	10.92	10.92	10.00	13.34	9.03	12.04	13.36
	4	7.76	8.48	9.66	7.27	11.48	9.83	11.58	10.56	11.06	8.62	12.65	11.79
2018	1			11.42	7.00	12.65	9.77	14.40	10.20	12.82	7.90	14.02	10.17
	2			11.03	6.80	12.66	9.05	12.06	9.89	16.75	6.80	12.78	10.15
	3			10.21	7.43	12.54	8.36	12.52	10.12	18.69	8.04	13.03	10.20
	4	11.39	9.81			12.86	8.68	12.24	10.21			13.92	11.13
2019	1	12.76	10.22			13.68	9.06	11.83	10.93			14.10	10.71
	2	12.04	9.92			12.62	8.41	14.56	9.99			13.80	11.66
	3	11.77	9.85			12.40	8.31	14.17	9.75			14.02	11.63
	4	9.21	9.09	10.74	12.26	11.75	6.99	14.20	9.77			12.76	11.20
2020	1	8.42	9.11	12.34	12.34	10.84	7.68	11.82	9.92			11.40	11.07
	2			13.81	12.38	11.26	7.25	11.28	9.05			11.89	11.10
	3			14.60	12.77			10.39	8.25			11.82	11.50
	4			12.09	10.37			9.68	8.12			12.93	12.11


Major Pennsylvania Gas Utilities - Actual Equity Returns by Quarter
Return on Common Equity %
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Q4'17
Q1'18
Q2'18
Q3'18
Q4'18
Q1'19
Q2'19
Q3'19
Q4'19
Q1'20
Q2'20
Q3'20
Q4'20
Columbia
Peoples Natural
PECO
NFG
UGI
Peoples Gas

WATER UTILITIES
EQUITY RETURNS BY QUARTER

QTR		PAWC		AQUA		SUEZ		York	
END		ACT	ADJ	ACT	ADJ	ACT	ADJ	ACT	ADJ
2015	1	10.33	9.14	12.46	11.11	9.11	9.83	12.7	12.7
	2	10.51	9.31	12.66	11.62	8.36	9.25	12.7	12.7
	3	10.06	8.81	12.41	11.95	8.39	9.37	13.6	13.6
	4	9.80	8.48	12.61	12.16	8.54	8.77	12.50	11.10
2016	1	10.12	8.68	12.31	11.71	9.27	10.19	12.40	10.90
	2	9.99	8.47	11.71	11.21	11.00	12.37	12.20	10.80
	3	9.82	8.47	11.55	10.32	8.23	9.99	12.20	11.00
	4	9.37	8.51	11.70	10.57	9.13	9.90	11.50	10.40
2017	1			11.34	10.04	9.22	9.60	11.61	9.50
	2			10.99	9.22	9.03	9.07	11.60	9.10
	3			10.99	9.23	8.57	8.57	11.60	8.70
	4			11.05	8.63	8.75	8.73	11.30	8.40
2018	1	9.55	8.97	10.94	8.41				
	2	10.27	9.65						
	3	11.03	9.48						
	4	10.08	9.03					10.70	10.30
2019	1	9.82	8.87					11.60	11.60
	2	9.72	8.90	9.84	9.04	10.78	10.36	11.80	11.80
	3	9.13	8.41	10.69	8.84	11.55	11.75	12.00	12.00
	4	8.71	8.09	10.33	8.24	11.80	12.15	12.00	9.80
2020	1	8.74	7.56	10.47	8.31	11.30	11.30	12.39	12.39
	2			10.81	8.57	10.72	10.69	12.51	12.51
	3			10.33	8.55	11.13	10.69	13.76	13.76
	4	8.90	8.15	9.89	8.30	13.98	10.17	13.42	9.94


Major Pennsylvania Water Companies - Actual Equity Returns by Quarter
20.00
15.00
10.00
5.00
0.00
Return on common Equity %
Q4'17
Q1'18
Q2'18
Q3'18
Q4'18
Q1'19
Q2'19
Q3'19
Q4'19
Q1'20
Q2'20
Q3'20
Q4'20
PAWC
AQUA
SUEZ
York

Attachment B includes:

A. Overall Returns on rate base
1. Actual
2. Company proposed pro forma and ratemaking adjustments

and

B. Equity Returns
1. Actual
2. Company proposed pro forma and ratemaking adjustments

Summary of Returns
For the Year Ended December 31, 2020

COMPANY NAME	OVERALL RETURN ACTUAL	OVERALL RETURN ADJ	EQUITY RETURN ACTUAL	EQUITY RETURN ADJ	ROE AUTH	YEAR AUTH
ELECTRIC						
$10,000,000 Revenues						
PECO Energy - Electric Operations	6.74	5.84	9.16	7.64	Settled	2018
PPL Electric Utilities Corp.	7.89	8.10	11.10	11.48	Settled	2015
Duquesne Light Company	8.74	6.37	12.57	8.15	Settled	2018
West Penn Power Company	5.83	4.87	7.48	5.65	Settled	2017
Pennsylvania Power Company	8.40	6.32	11.36	7.34	Settled	2017
UGI Utilities, Inc. - Electric Division*					9.85	2018
Pennsylvania Electric Company	7.27	6.46	10.08	8.62	Settled	2017
Metropolitan Edison Company	7.05	6.35	9.91	8.64	Settled	2017
Over $1,000,000 Revenues						
Citizens Electric Company	4.80	6.40	4.94	6.74	9.54	2020
Pike County Light & Power Co.	3.66	2.84	3.26	1.81	Settled	2014
Wellsboro Electric Company	8.45	8.45	22.88	22.88	9.31	2020
GAS						
$10,000,000 Revenues						
Columbia Gas of PA, Inc.*					9.86	2021
Peoples Natural Gas Company LLC	8.24	7.34	12.09	10.37	Settled	2019
PECO Energy - Gas Operations*					Settled	2010
National Fuel Gas Distribution Co.	7.11	6.45	9.68	8.12	Settled	2006
UGI Utilities, Inc. – Gas Division*					Settled	2020
Peoples Gas Company, LLC	7.95	7.47	12.93	12.11	Settled	2013
$1,000,000 to $10,000,000 Revenues						
North East Heat & Light Co.	10.31	10.31	10.47	10.47	11.00	2008
Valley Energy	2.46	2.57	1.51	1.67	9.73	2020
Pike County Light & Power Co.	4.62	3.85	5.74	4.25	Settled	2014
WATER						
$10,000,000 Revenues						
PA American Water Company	6.90	6.49	8.90	8.15	Settled	2021
Aqua Pennsylvania	7.05	6.18	9.89	8.30	Settled	2018
York Water Company	9.24	7.25	13.42	9.94	Settled	2019
SUEZ Water Pennsylvania, Inc.	9.56	7.48	13.98	10.17	Settled	2018
$1,000,000 to $10,000,000 Revenues						
Newtown Artesian Water Co.	12.03	10.13	16.04	12.92	Settled	2019
Columbia Water Company	4.13	4.13	3.79	3.70	Settled	2015

UGI Utilities, Inc. – Electric Division, PECO Energy Company – Gas Operations, Columbia Gas of Pennsylvania, Inc., and UGI Utilities, Inc. – Gas Division have rate filings at Docket Nos. R-2021-3023618, R-2020-3018929, R-2020-3018835, and R-2019-3015162 respectively, and filed a letter with the Secretary in place of a report in accordance with 52 Pa. Code § 71.4.

ALLOWED RATES OF RETURN ON COMMON EQUITY

This is a historical chart that shows the most recent rate cases for select companies in electric, gas, and water. A docket number followed by their final return on equity and year is also given.

ELECTRIC	**Docket Number**	**ROE (%)**	**Year**
Recent PA PUC Allowed			
Duquesne Light Company	R-2018-3000124	Settled	2018
PECO Energy Company	R-2018-3000164	Settled	2018
UGI - Electric	R-2017-2640058	9.85	2018
Pennsylvania Electric Company	R-2016-2537352	Settled	2017
Metropolitan Edison Company	R-2016-2537349	Settled	2017
Pennsylvania Power Company	R-2016-2537355	Settled	2017
West Penn Power Company	R-2016-2537359	Settled	2017
Current Market Indicated ROE as calculated by the Bureau of Technical Utility Services.			**7.10-10.08**

GAS			
Recent PA PUC Allowed			
Columbia Gas of Pa.	R-2020-3018835	9.86	2021
UGI Utilities, Inc. – Gas Division	R-2019-3015162	Settled	2020
Peoples Natural Gas Company	R-2018-3006818	Settled	2019
PECO Energy	R-2010-2161592	Settled	2010
Peoples Gas Company	R-2013-2355886	Settled	2013
Current Market Indicated ROE as calculated by the Bureau of Technical Utility Services.			**8.24-9.84**

WATER			
Recent PA PUC Allowed			
Aqua Pennsylvania	R-2018-3003558	Settled	2018
PA American Water	R-2020-3019369	Settled	2021
Columbia Water	R-2017-2598203	Settled	2017
York Water	R-2018-3000019	Settled	2019
SUEZ Water	R-2018-3000834	Settled	2018
Current Market Indicated ROE as calculated by the Bureau of Technical Utility Services.			**6.55-11.16**

Distribution System Improvement Charge (DSIC) Eligible Utilities
Return on Equity (ROE) Summary

	Utility Adjusted ROE[2] (%)	Commission Approved ROE[3] (%)
ELECTRIC		
PECO Energy – Electric Operations	7.64	9.45
PPL Electric Utilities Corp.	11.48	9.45
Duquesne Light Company	8.15	9.45
West Penn Power Company	5.65	9.45
Pennsylvania Power Company	7.34	9.45
Pennsylvania Electric Company	8.62	9.45
Metropolitan Edison Company	8.64	9.45
UGI Utilities, Inc.- Electric Division*		9.45
GAS		
Columbia Gas of PA, Inc.*		9.86
Peoples Natural Gas Company LLC	10.37	10.20
PECO Energy – Gas Operations*		10.20
Peoples Gas Company, LLC	12.11	10.20
UGI Utilities, Inc. – Gas Division*		10.20
WATER		
PA American Water Company	8.15	9.85
PA American – Wastewater	8.15	9.85
AQUA Pennsylvania	8.30	9.85
AQUA Pennsylvania – Wastewater	8.30	9.85
York Water Company	9.94	9.85
SUEZ Water Pennsylvania Inc.	10.17	9.85
Columbia Water Company	3.70	9.85
Newtown Artesian Water	12.92	9.85

* UGI Utilities, Inc. – Electric Division, PECO Energy Company – Gas Operations, Columbia Gas of Pennsylvania, Inc., and UGI Utilities, Inc. – Gas Division have rate filings at Docket Nos. R-2021-3023618, R-2020-3018929, R-2020-3018835, and R-2019-3015162 respectively, and filed a letter with the Secretary in place of a report in accordance with 52 Pa. Code § 71.4.

2 Each utility lists adjustments on Schedule B of their quarterly financial report.

3 The ROE is approved in a utility's most recent fully litigated base rate proceeding for which a final order was entered not more than two years prior to the effective date of the DSIC. If more than two years have elapsed between the entry of a final order and the DSIC effective date, the ROE is from this report. If the base rate proceeding is settled, without a stipulated ROE, the ROE is from this report.

Explanation of Discounted Cash Flow (DCF) and Capital Asset Pricing Model (CAPM)

Barometer Group Criteria

The criteria used for determining the industry barometer groups used to calculate ROEs in this report are as follows:

- 50% or more of the company's assets must be related to the jurisdictional utility industry;
- The company's stock must be publicly traded;
- Companies involved in merger & acquisition activity will be excluded;
- Investment information for the company must be available to the Commission from more than one source; and
- Geographic Regions:
  EDCs: *Value Line* East, Central, and West Group Electric Utility companies;
  NGDCs: *Value Line* Investment Survey's Natural Gas Utility industry group companies;
  Water/Wastewater: *Value Line* Investment Survey's Water Utility industry group companies.

The barometer group companies are reviewed by staff on a quarterly basis and make any changes to these companies based upon the criteria above.

ROE Calculations

The Commission consistently uses the DCF model to determine the appropriate cost of equity for utilities. In this report, the DSIC ROE is calculated using two DCF models.

TUS uses the following formula to calculate the current dividend DCF: $K = D_1/P_0 + G$

TUS uses the following formula to calculate the 52-week average dividend DCF: $K = D_0/P_a + G$

Definitions:

K	=	Cost of equity
D_1	=	Dividend expected during the year
	=	$D_0 + ½g$
D_0	=	Latest indicated dividend, obtained from Yahoo! Finance
g	=	Expected 5-year dividend growth rate of barometer group obtained from Value Line Investment Survey.
P_0	=	Current price of the stock, obtained from Yahoo! Finance
P_a	=	Average of high and low stock price over the latest 52-week period, obtained from Yahoo! Finance
G	=	Average of 5-year expected earnings growth rate forecasts obtained from Value Line, Zacks Investment Survey, Yahoo! Finance, and Morningstar.

The CAPM uses the yield of a risk-free interest-bearing obligation plus a rate of return premium that is proportional to the systematic risk of an investment.

TUS uses the following formula to calculate CAPM: $K = \beta(R_m - R_f)$

Three components are necessary to calculate the CAPM cost of equity:

β	=	Beta, a measure of systematic risk for each stock
R_f	=	The risk-free rate of return, 10-year U.S. Treasury yields are used for R_f. Yields are taken from the previous two quarters and forecasted next four quarters.
R_m	=	Total return of the equity market as determined by the SBBI Yearbook

The Commission determines the ROE used for DSIC purposes based on the range of reasonableness from the DCF barometer group data, CAPM data, recent ROEs adjudicated by the Commission, and informed judgment.

The market indicated common equity cost rate range consists of data used from the barometer groups and is based on a series of calculations to average the DCF methods.

Market Based Returns on Common Equity[1]

April 15, 2021

Electric Company Barometer Group

	Cost Rates %
(1) Current DCF:	8.47
(2) 52-Week Average DCF:	8.72
(3) Overall DCF ((1) + (2)) / 2 :	8.59
(4) Market Indicated Common Equity Cost Rate Range: @ 1 standard deviation around the mean.[2]	7.10-10.08
(5) CAPM Check of DCF Reasonableness:	10.67
(6) Recent Commission Approved ROEs[3]: *None within last two years	*
(7) Distribution System Improvement Charge (DSIC) Return[4]:	**9.45%**

[1] As calculated by the Bureau of Technical Utility Services

[2] Standard Deviation of 56 DCF observations

[3] Base rate case ROEs within last two years, fully litigated or stipulated for DSIC purposes

[4] Commission authorized Return on Equity (ROE) for DSIC purposes

Any questions concerning DSIC should be directed to Marc Hoffer of the Bureau of Technical Utility Services at (717) 787-1869.

Historic Electric Industry Barometer Group DCF and CAPM Average ROEs

Electric		
	DCF	CAPM
Q4'18	8.56	8.39
Q1'19	8.33	8.09
Q2'19	8.31	7.74
Q3'19	8.28	7.65
Q4'19	8.78	7.22
Q1'20	8.56	10.37
Q2'20	8.57	10.56
Q3'20	8.40	10.71
Q4'20	8.59	10.67

Chart of Historic Electric Industry DCF and CAPM Average ROEs

Barometer electric companies are used to calculate a current DCF in the first chart. The second chart demonstrates the companies 52-week average DCF. A final average of the two calculations is also shown at the bottom.

Electric Company Barometer Group
Calculation of a Current Dividend Yield

	Closing Market Price (Po) 4/15/2021 ($)	Latest Indicated Dividend (Do) ($)	Ind. Div. Plus 1/2 Div. Growth Rate (D1) ($)	Current Dividend Yield(D1/Po) (%)	DCF (%)
Allete, Inc.	70.01	2.52	2.56	3.66	10.16
Alliant Energy Corp	55.68	1.61	1.67	2.99	8.87
Ameren Corp	85.38	2.20	2.28	2.67	9.72
American Electric Power	87.81	2.96	3.04	3.46	9.50
AVANGRID, Inc.	52.58	1.76	1.77	3.37	9.77
Avista Corp	47.70	1.69	1.72	3.61	8.55
CMS Energy Corp	63.40	1.74	1.80	2.84	10.02
Consolidated Edison	77.19	3.10	3.15	4.08	6.66
DTE Energy Company	139.48	4.34	4.48	3.21	7.08
Duke Energy Company	99.75	3.86	3.91	3.92	8.69
Edison International	61.44	2.65	2.70	4.40	6.43
Entergy Corp.	105.59	3.80	3.89	3.68	8.10
Eversource Energy	88.79	2.41	2.48	2.80	9.78
Exelon Corp	45.77	1.53	1.57	3.43	5.05
Fortis Inc.	43.66	1.59	1.64	3.75	8.85
IDACORP, Inc..	100.49	2.84	2.93	2.92	6.42
MGE Energy, Inc.	73.83	1.48	1.52	2.06	6.69
NextEra Energy, Inc.	80.18	1.54	1.62	2.02	10.99
NorthWestern Corp	68.18	2.48	2.53	3.71	7.54
OGE Energy Corp	33.40	1.61	1.65	4.93	8.83
Otter Tail Corp	47.22	1.56	1.60	3.39	11.39
Pinnacle West Capital Corp	84.47	3.32	3.42	4.05	7.80
Portland General Electric Co.	50.14	1.63	1.68	3.35	7.30
PPL Corporation	28.99	1.66	1.67	5.77	8.32
Public Service Enterprise Group	62.40	2.04	2.08	3.33	7.05
Southern Company	64.49	2.56	2.60	4.03	9.23
WEC Energy Group, Inc.	95.94	2.71	2.80	2.92	9.24
Xcel Energy Inc.	69.96	1.83	1.88	2.69	8.87
Group Average	70.85	2.32	2.38	3.47	8.46
Group Average G				5.00	
DCF				**8.47**	

Electric Company Barometer Group

52-week Average Dividend Yield Calculation

	High	Low	Average (Pa)	Latest Indicated Dividend (Do)	Average Dividend Yield (Do/Pa)	DCF
	($)	($)	($)	($)	(%)	(%)
Allete, Inc.	72.60	48.22	60.41	2.52	4.17	10.67
Alliant Energy Corp	58.10	44.36	51.23	1.61	3.14	9.02
Ameren Corp	86.90	66.33	76.62	2.20	2.87	9.92
American Electric Power	94.21	74.80	84.51	2.96	3.50	9.54
AVANGRID, Inc.	56.20	38.78	47.49	1.76	3.71	10.11
Avista Corp	49.14	32.26	40.70	1.69	4.15	9.09
CMS Energy Corp	67.98	52.35	60.17	1.74	2.89	10.07
Consolidated Edison	90.00	65.56	77.78	3.10	3.99	6.57
DTE Energy Company	140.79	92.39	116.59	4.34	3.72	7.58
Duke Energy Company	100.90	77.58	89.24	3.86	4.33	9.10
Edison International	66.68	48.47	57.58	2.65	4.60	6.64
Entergy Corp.	113.36	85.78	99.57	3.80	3.82	8.24
Eversource Energy	96.66	73.61	85.14	2.41	2.83	9.82
Exelon Corp	46.15	33.97	40.06	1.53	3.82	5.43
Fortis Inc.	44.25	35.53	39.89	1.59	3.99	9.09
IDACORP, Inc..	102.96	78.91	90.94	2.84	3.12	6.62
MGE Energy, Inc.	74.53	56.25	65.39	1.48	2.26	6.90
NextEra Energy, Inc.	87.69	55.65	71.67	1.54	2.15	11.12
NorthWestern Corp	69.81	47.43	58.62	2.48	4.23	8.06
OGE Energy Corp	35.24	27.96	31.60	1.61	5.09	8.99
Otter Tail Corp	47.80	35.36	41.58	1.56	3.75	11.75
Pinnacle West Capital Corp	91.88	69.29	80.59	3.32	4.12	7.87
Portland General Electric Co.	51.14	31.96	41.55	1.63	3.92	7.87
PPL Corporation	30.94	23.71	27.33	1.66	6.08	8.63
Public Service Enterprise Group	63.38	43.87	53.63	2.04	3.80	7.52
Southern Company	65.05	50.40	57.73	2.56	4.43	9.63
WEC Energy Group, Inc.	106.85	80.55	93.70	2.71	2.89	9.22
Xcel Energy Inc.	76.44	56.07	66.26	1.83	2.76	8.94
Group Average	74.56	54.55	64.55	2.32	3.72	8.71
Group Average G					5.00	
DCF					**8.72**	
			Average of Current and 52-Week		**8.59**	

Multiple sources of the Barometer companies projected 5-year Earnings Per Share are used to calculate the Group Average Dividend Growth Estimate.

Development of a Representative Dividend Growth Rate
for the Barometer Group of Electric Companies
5 Year Forecast

	Value Line DPS (%)	Value Line EPS (%)	Zack's EPS (%)	Yahoo EPS (%)	Morningstar EPS (%)	Avgerage Earnings Growth (%)	Growth Estimate (%)
Allete, Inc.	3.50	6.00	NA	7.00	NA	6.50	6.50
Alliant Energy Corp	7.00	5.50	5.80	5.50	6.70	5.88	5.88
Ameren Corp	7.00	6.00	7.30	7.50	7.40	7.05	7.05
American Electric Power	5.50	6.50	5.70	6.15	5.80	6.04	6.04
AVANGRID, Inc.	1.50	6.00	5.50	5.00	9.10	6.40	6.40
Avista Corp	4.00	1.00	6.90	6.90	NA	4.93	4.93
CMS Energy Corp	7.00	7.50	6.90	7.20	7.10	7.18	7.18
Consolidated Edison	3.00	2.50	2.00	2.95	2.90	2.59	2.59
DTE Energy Company	6.50	6.00	5.70	4.65	-0.90	3.86	3.86
Duke Energy Company	2.50	5.00	5.20	5.00	3.90	4.78	4.78
Edison International	4.00	12.00	4.30	-0.50	2.30	4.53	2.03
Entergy Corp.	4.50	3.00	5.10	5.50	4.10	4.43	4.43
Eversource Energy	6.00	6.50	6.80	7.05	7.60	6.99	6.99
Exelon Corp	5.50	4.00	2.30	-0.34	0.50	1.62	1.62
Fortis Inc.	6.00	4.00	6.20	NA	NA	5.10	5.10
IDACORP, Inc..	6.50	4.50	3.00	3.00	NA	3.50	3.50
MGE Energy, Inc.	5.50	4.50	4.70	4.70	NA	4.63	4.63
NextEra Energy, Inc.	10.50	10.50	7.80	8.49	9.10	8.97	8.97
NorthWestern Corp	4.00	2.50	4.40	4.58	NA	3.83	3.83
OGE Energy Corp	4.50	4.00	4.40	3.80	3.40	3.90	3.90
Otter Tail Corp	5.50	7.00	NA	9.00	NA	8.00	8.00
Pinnacle West Capital Corp	6.00	4.50	3.40	3.50	3.60	3.75	3.75
Portland General Electric Co.	6.00	4.00	13.40	13.40	3.90	8.68	3.95
PPL Corporation	1.50	2.50	NA	-16.20	2.60	-3.70	2.55
Public Service Enterprise Group	4.00	5.00	3.80	2.45	3.60	3.71	3.71
Southern Company	3.00	3.50	5.00	6.49	5.80	5.20	5.20
WEC Energy Group, Inc.	6.50	6.50	6.10	6.10	6.60	6.33	6.33
Xcel Energy Inc.	6.00	6.00	6.20	6.30	6.20	6.18	6.18
Group Average	5.11	5.23	5.52	4.64	4.82	5.03	4.99
USE							5.00

Sources: Value Line Investment Survey, April 15, 2021
Zacks, April 16, 2021 (www.zacks.com)
Yahoo!, April 16, 2021 (http://finance.yahoo.com/)
Morningstar, April 16, 2021 (http://financials.morningstar.com)
* NA signifies that a forecast was not available

The market indicated common equity cost rate range consists of data used from the barometer groups and is based on a series of calculations to average the DCF methods.

Market Based Returns on Common Equity[1]

April 15, 2021

Gas Distribution Company Barometer Group

		Cost Rates %
(1)	Current DCF:	8.95
(2)	52-Week Average DCF:	9.13
(3)	Overall DCF ((1) + (2)) / 2 :	9.04
(4)	Market Indicated Common Equity Cost Rate Range: @ 1 standard deviation around the mean.[2]	8.24-9.84
(5)	CAPM Check of DCF Reasonableness:	10.68
(6)	Recent Commission Approved ROEs[3]: *Columbia Gas of Pennsylvania, Inc. R-2020-3018835	9.86*
(7)	Distribution System Improvement Charge (DSIC) Return[4]:	**10.20%**

[1] As calculated by the Bureau of Technical Utility Services

[2] Standard Deviation of 18 DCF observations

[3] Base rate case ROEs within last two years, fully litigated or stipulated for DSIC purposes

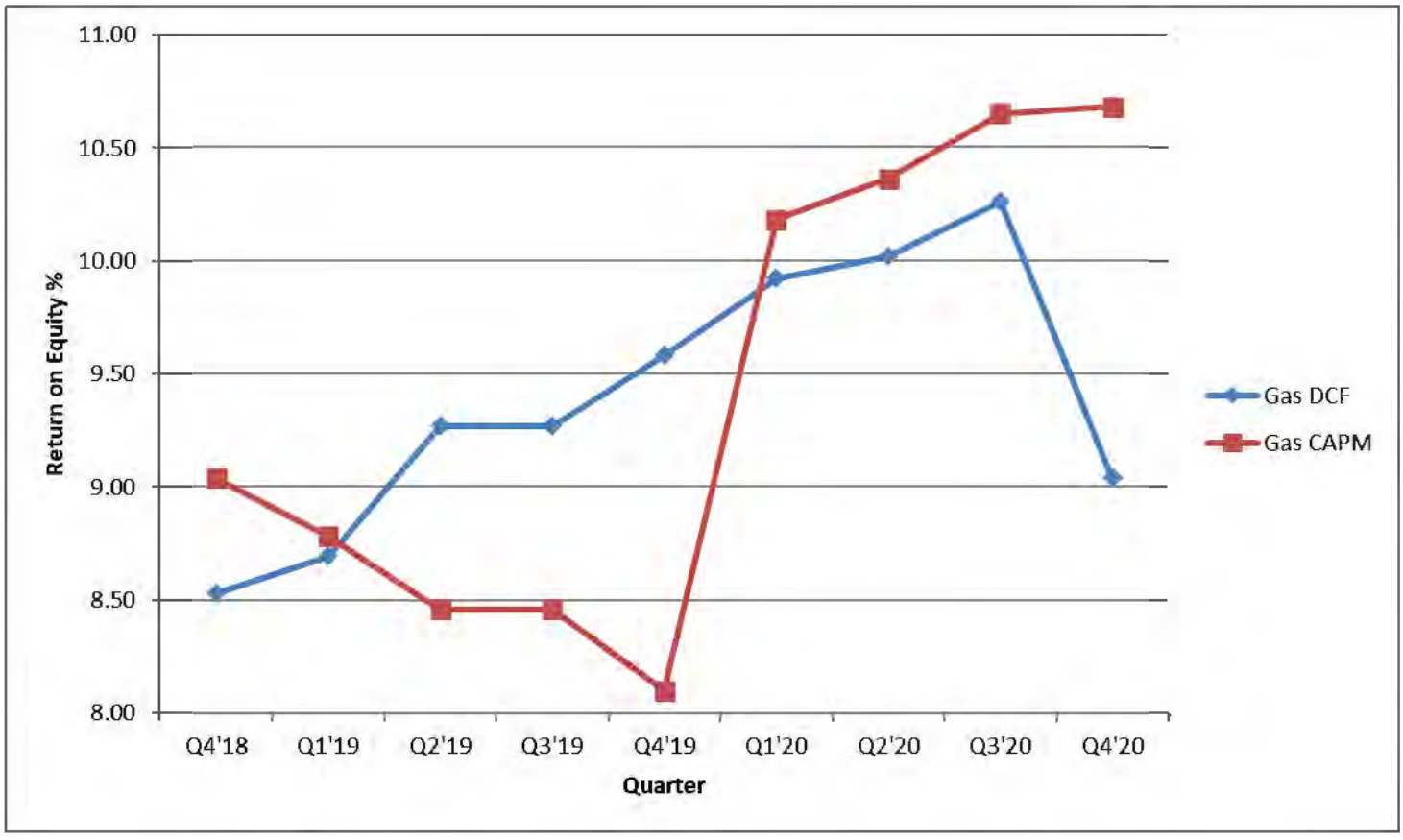
[4] Commission authorized Return on Equity (ROE) for DSIC purposes

Any questions concerning DSIC should be directed to Marc Hoffer of the Bureau of Technical Utility Services at (717) 787-1869.

Historic Gas Industry DCF and CAPM Average ROEs

Gas		
	DCF	CAPM
Q4'18	8.53	9.04
Q1'19	8.69	8.78
Q2'19	9.27	8.46
Q3'19	9.27	8.46
Q4'19	9.58	8.10
Q1'20	9.92	10.18
Q2'20	10.02	10.36
Q3'20	10.26	10.65
Q4'20	9.04	10.68

Graph of Historic Gas Industry DCF and CAPM Average ROEs



Barometer gas companies are used to calculate a current DCF in the first chart. The second chart demonstrates the companies 52-week average DCF. A final average of the two calculations is also shown at the bottom.

Gas Company Barometer Group
Calculation of a Current Dividend Yield

	Closing Market Price (Po) 4/15/2021 ($)	Latest Indicated Dividend (Do) ($)	Ind. Div. Plus 1/2 Div. Growth Rate (D1) ($)	Current Dividend Yield(D1/Po) (%)	DCF (%)
Atmos Energy	101.32	2.50	2.59	2.56	9.70
Chesapeake Utilities Corporation	119.37	1.76	1.83	1.53	8.15
New Jersey Resources	41.68	1.33	1.37	3.28	8.90
NiSource Inc.	25.58	0.88	0.90	3.52	9.51
Northwest Natural Gas	55.34	1.92	1.92	3.48	7.38
ONE Gas, Inc.	79.85	2.32	2.40	3.01	8.51
South Jersey Industries	24.52	1.21	1.23	5.03	9.43
Southwest Gas Holdings, Inc.	72.32	2.38	2.43	3.36	9.03
Spire Inc.	77.40	2.60	2.66	3.43	9.63
Group Average	66.38	1.88	1.93	3.25	8.92
Group Average G				5.70	
DCF				**8.95**	

Gas Company Barometer Group
52-week Average Dividend Yield Calculation

	High ($)	Low ($)	Average (Pa) ($)	Latest Indicated Dividend (Do) ($)	Average Dividend Yield (Do/Pa) (%)	DCF (%)
Atmos Energy	111.34	84.59	97.97	2.50	2.55	9.69
Chesapeake Utilities Corporation	121.04	72.89	96.97	1.76	1.82	8.44
New Jersey Resources	42.57	25.87	34.22	1.33	3.89	9.51
NiSource Inc.	27.24	21.09	24.17	0.88	3.64	9.63
Northwest Natural Gas	67.24	41.71	54.48	1.92	3.52	7.42
ONE Gas, Inc.	90.24	65.51	77.88	2.32	2.98	8.48
South Jersey Industries	30.25	18.24	24.25	1.21	4.99	9.39
Southwest Gas Holdings, Inc.	81.62	57.00	69.31	2.38	3.43	9.10
Spire Inc.	77.99	50.58	64.29	2.60	4.04	10.24
Group Average	72.17	48.61	60.39	1.88	3.43	9.10
Group Average G					5.70	
DCF					**9.13**	
			Average of Current and 52-Week		**9.04**	

Appendix A-5-1 (AUS)

Multiple sources of the Barometer companies projected 5-year Earnings Per Share are used to calculate the Group Average Dividend Growth Estimate.

Development of a Representative Dividend Growth Rate
for the Barometer Group of Gas Companies
5 Yr Forecast

	Value Line DPS (%)	Value Line EPS (%)	Zack's EPS (%)	Yahoo EPS (%)	Morningstar EPS (%)	Avgerage Earnings Growth (%)	Growth Estimate (%)
Atmos Energy	7.50	7.00	7.30	7.17	7.10	7.14	7.14
Chesapeake Utilities Corporation	8.00	8.50	NA	4.74	0.00	4.41	6.62
New Jersey Resources	5.50	1.50	6.00	6.00	9.00	5.63	5.63
NiSource Inc.	4.50	10.00	5.00	4.37	4.60	5.99	5.99
Northwest Natural Gas	0.50	5.50	NA	3.10	3.10	3.90	3.90
ONE Gas, Inc.	7.00	6.50	5.00	5.00	NA	5.50	5.50
South Jersey Industries	4.00	10.50	4.40	4.40	NA	6.43	4.40
Southwest Gas Holdings, Inc.	4.50	8.00	5.00	4.00	NA	5.67	5.67
Spire Inc.	4.50	9.00	5.00	5.70	5.10	6.20	6.20
Group Average	5.11	7.39	5.39	4.94	4.82	5.65	5.67
USE							5.70

Sources: Value Line Investment Survey, April 15, 2021
Zacks, April 16, 2021 (www.zacks.com)
Yahoo!, April 16, 2021 (http://finance.yahoo.com/)
Morningstar, April 16, 2021 (http://financials.morningstar.com)
* NA signifies that a forecast was not available

The market indicated common equity cost rate range consists of data used from the barometer groups and is based on a series of calculations to average the DCF methods.

Market Based Returns on Common Equity [1]

April 15, 2021

Water Company Barometer Group

	Cost Rates %
(1) Current DCF	8.79
(2) 52-Week Average DCF	8.91
(3) Average DCF	8.85
(4) Market Indicated Common Equity Cost Rate Range @ 1 standard deviation around the mean.[2]	6.55-11.16
(5) CAPM Check of DCF Reasonableness	9.64
(6) Recent Commission Approved ROEs[3]: *None within last two years	*
(7) Distribution System Improvement Charge (DSIC) Return[4]:	**9.85%**

[1] As calculated by the Bureau of Technical Utility Services

[2] Standard Deviation of 14 DCF observations

[3] ROEs from base rate cases within last two years, fully litigated or stipulated for DSIC purposes

[4] Commission authorized Return on Equity (ROE) for DSIC purposes

Any questions concerning DSIC should be directed to Marc Hoffer of the Bureau of Technical Utility Services at (717) 787-1869.

Historic Water Industry DCF and CAPM Average ROEs

Water		
	DCF	CAPM
Q4'18	9.35	9.23
Q1'19	9.30	9.02
Q2'19	9.17	8.62
Q3'19	9.16	8.55
Q4'19	8.87	7.95
Q1'20	9.10	9.46
Q2'20	9.34	9.47
Q3'20	9.40	9.68
Q4'20	8.85	9.64

Chart of Historic Water Industry DCF and CAPM Average ROEs

Barometer water companies are used to calculate a current DCF in the first chart. The second chart demonstrates the companies 52-week average DCF. A final average of the two calculations is also shown at the bottom.

Water Company Barometer Group
Calculation of a Current Dividend Yield

	Closing Market Price (Po) 4/15/2021 ($)	Latest Indicated Dividend (Do) ($)	Ind. Div. Plus 1/2 Div. Growth Rate (D1) ($)	Current Dividend Yield(D1/Po) (%)	Growth (%)	DCF (%)
American States Water Company	80.59	1.34	1.40	1.74	5.43	7.18
American Water Works Co., Inc.	159.16	2.20	2.29	1.44	8.50	9.94
California Water Service Group	60.55	0.92	0.95	1.57	9.58	11.15
Essential Utilities, Inc.	47.12	1.00	1.04	2.20	7.40	9.60
Middlesex Water Company	82.18	1.06	1.09	1.33	3.60	4.93
SJW Group	67.70	1.36	1.40	2.07	9.25	11.32
The York Water Company	51.48	0.75	0.77	1.50	5.70	7.20
Group Average	78.40	1.23	1.28	1.69	7.07	8.76
Group Average G				7.10		
DCF				**8.79**		

52-week High-Low Dividend Yield Calculation

	High ($)	Low ($)	Average (Pa) ($)	Latest Indicated Dividend (Do) ($)	Average Dividend Yield (Do/Pa) (%)	Growth (%)	DCF (%)
American States Water Company	89.96	69.25	79.61	1.34	1.68	5.43	7.12
American Water Works Co., Inc.	172.56	112.50	142.53	2.20	1.54	8.50	10.04
California Water Service Group	60.88	41.19	51.04	0.92	1.80	9.58	11.39
Essential Utilities, Inc.	48.89	37.37	43.13	1.00	2.32	7.40	9.72
Middlesex Water Company	85.92	56.44	71.18	1.06	1.49	3.60	5.09
SJW Group	71.69	50.85	61.27	1.36	2.22	9.25	11.47
The York Water Company	51.90	39.50	45.70	0.75	1.64	5.70	7.34
Group Average	83.11	58.16	70.64	1.23	1.81	7.07	8.88
Group Average G					7.10		
DCF					**8.91**		
			Average of Current and 52-Week		**8.85**		

Multiple sources of the Barometer companies projected 5-year Earnings Per Share are used to calculate the Group Average Dividend Growth Estimate.

Development of a Representative Dividend Growth Rate
for the Barometer Group of Water Companies

	5 Yr Forecast						
	Value Line DPS (%)	Value Line EPS (%)	Zacks EPS (%)	Yahoo EPS (%)	Morningstar EPS (%)	Avgerage Earnings Growth (%)	Growth Estimate (%)
American States Water Company	9.50	6.50	NA	4.60	5.20	5.43	5.43
American Water Works Co., Inc.	8.50	8.50	8.10	8.60	8.80	8.50	8.50
California Water Service Group	6.50	6.50	NA	10.75	11.50	9.58	9.58
Essential Utilities, Inc.	7.50	10.00	6.20	6.40	7.00	7.40	7.40
Middlesex Water Company	5.50	4.50	NA	2.70	NA	3.60	3.60
SJW Group	6.00	13.00	NA	5.50	47.10	21.87	9.25
The York Water Company	6.00	6.50	NA	4.90	NA	5.70	5.70
Group Average	7.07	7.93	7.15	6.21	15.92	8.87	7.07
USE							7.10

Sources: Value Line Investment Survey April 15, 2020
Zacks, April 16, 2021 (www.zacks.com)
Yahoo!, April 16, 2021 (http://finance.yahoo.com/)
Morningstar, April 16, 2021 (http://financials.morningstar.com)
* NA signifies that a forecast was not available

Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

Market Approach
Value Line Investment Surveys
Water Industry

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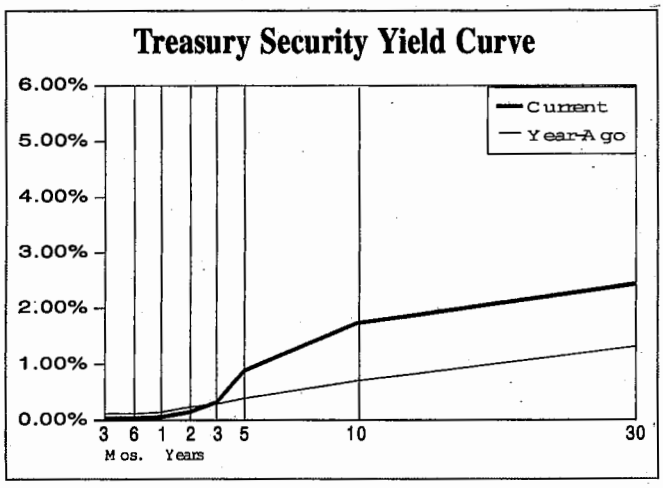
J. Weinert's Cell: 414-698-8371
J. Weinert's E-Mail: weinertj@auswest.net

Selected Yields

TAXABLE	Recent (3/29/21)	3 Months Ago (12/28/20)	Year Ago (3/30/20)
Market Rates			
Discount Rate	0.25	0.25	0.25
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25
Prime Rate	3.25	3.25	3.25
30-day CP (A1/P1)	0.07	0.09	1.47
3-month LIBOR	0.20	0.24	1.43
U.S. Treasury Securities			
3-month	0.03	0.11	0.12
6-month	0.04	0.11	0.12
1-year	0.06	0.11	0.14
5-year	0.89	0.37	0.39
10-year	1.73	0.94	0.70
10-year (inflation-protected)	-0.63	-1.03	-0.25
30-year	2.43	1.67	1.31
30-year Zero	N/A	N/A	N/A
Common Stocks			
VL Stocks (Median)	1.80	2.00	3.10
DJ Industrials (12-mo. est.)	1.90	2.00	2.80
VL Utilities	3.50	3.70	3.70

TAXABLE	Recent (3/29/21)	3 Months Ago (12/28/20)	Year Ago (3/30/20)
Corporate Bonds			
Financial (10-year) A	2.54	1.70	3.30
Industrial (25/30-year) A	3.35	2.55	3.40
Utility (25/30-year) A	3.49	2.73	3.65
Utility (25/30-year) Baa/BBB	3.77	3.03	4.43
S&P 500 High Yield Corp. Bond Index	3.76	3.52	6.70
Foreign Bonds (10-Year)			
Canada	1.53	0.72	0.78
Germany	-0.28	-0.56	-0.53
Japan	0.09	0.02	0.02
United Kingdom	0.83	0.25	0.35
Mortgage-Backed Securities			
GNMA 5.5%	2.29	2.21	3.39
FHLMC 5.5% (Gold)	1.70	2.16	3.28
FNMA 5.5%	2.22	2.57	3.23
Preferred Stock			
Utility A	6.33	6.14	6.23
Financial BBB	5.50	5.31	5.78
Financial Adjustable A	N/A	N/A	N/A



TAX-EXEMPT	Recent (3/29/21)	3 Months Ago (12/28/20)	Year Ago (3/30/20)
Bond Buyer Indexes			
20-Bond Index (GOs)	2.35	2.12	2.27
25-Bond Index (Revs)	2.71	2.57	2.77
General Obligation Bonds (GOs)			
1-year AAA	0.08	0.11	1.05
1-year A	0.40	0.47	1.18
5-year AAA	0.48	0.19	1.14
5-year A	0.88	0.58	1.32
10-year AAA	1.06	0.67	1.37
10-year A	1.56	1.05	1.68
25/30-year AAA	1.70	1.35	1.85
25/30-year A	2.28	1.74	2.58
Revenue Bonds (Revs) (15 Years)			
Education AA	1.57	1.22	1.56
Electric AA	1.51	1.09	1.60
Water/Sewer AA	1.44	1.10	1.43
Hospital AA	1.67	1.28	1.84
Toll Road AA	1.70	1.38	1.95

Source: Bloomberg Finance L.P.

Federal Reserve Data

BANK RESERVES *(One-Month Period; in Billions, Not Seasonally Adjusted)*

	Recent Levels			Average Level Over the Last...		
	2/21	1/21	Change	3 Mos.	6 Mos.	12 Mos.
Total Reserves	3345.9	3153.8	192.1	3211.6	3066.5	2935.9
Borrowed Reserves	53.5	52.6	0.9	54.9	64.0	77.9
Non-Borrowed Reserves	3292.4	3101.2	191.2	3156.6	3002.5	2858.1

MONEY SUPPLY *(One-Month Period; in Billions, Seasonally Adjusted)*

	Recent Levels			Growth Rates Over the Last...	
	2/21	1/21	Change	3 Mos.	6 Mos.
M1 (Currency+demand deposits+other liquid assets)	18421.0	18120.6	300.4	4.5%	7.2%
M2 (M1+small time deposits+retail money markets)	19669.8	19400.1	269.7	3.7%	5.7%

Source: United States Federal Reserve Bank

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THE VALUE LINE Investment Survey®

www.valueline.com

Part 3 Ratings & Reports

ISSUE 9

Pages 1700-1850

File in the binder in order of issue number, removing previous issue bearing the same number.

April 9, 2021

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

ESPECIALLY NOTEWORTHY:

This week, we welcome two new companies to the Survey. eXp World Holdings, which owns and operates a cloud-based real estate brokerage and a technology platform concern that enables a variety of businesses to operate remotely, is making its debut in the E-Commerce Industry on page 1822. What's more, ***Q2 Holdings****, which provides a secure, cloud-based platform that links financial institutions with their clients and end users, is also joining the ranks of the E-Commerce Industry on page 1832.*

salesforce.com *is slated to close on the acquisition of Slack Technologies by July. Turn to page 1834 to learn our take on the transaction and the company's alluring prospects over both the short and long term.*

The proposed acquisition of ***Aerojet Rocketdyne*** *by Lockheed Martin has hit a few bumps in the road, with Raytheon Technologies, a major competitor of Lockheed Martin and one of Aerojet's largest customers pledging to challenge the transaction. Learn more on page 1746.*

Morgan Stanley *has been rather active on the acquisition trail of late, having purchased E*TRADE and Eaton Vance during the past year. Turn to page 1811 to learn more about this timely issue.*

In three parts: Part 1 is the Summary & Index. Part 2 is Selection & Opinion. This is Part 3, Ratings & Reports. Volume LXXVI, No. 35

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See back cover for important disclosures.

The Water Utility Industry consists of eight companies that provide water services mostly to residential customers. The group continues to be highly ranked among the 97 industries that are followed by *Value Line*. Much of the appeal of owning these securities has to do with their well-defined earnings and dividend growth prospects. These equities also provide diversification for professional money managers who overseeing funds that must be put invested in regulated utilities.

Due to the small number of equities available here, they trade at high Price/Earnings ratios.

As a group, these stocks have underperformed the S&P 500 Index since the beginning of the year.

INDUSTRY TIMELINESS: 7 (of 97)

Earnings Remain Steady

COVID-19 has not caused any real problems for water utilities. This is due to two main reasons. First, the demand for water is relatively inelastic. Whether GDP is rising or falling substantially, the demand for water will not change much. (Regulators can occasionally impose price increases for emergencies, such as a drought, to reduce usage.) People just have to consume this essential resource. Secondly, because utilities must file petitions with state authorities to change rates, the price of water is typically known for the next year or two. For example, in California, the process is so lengthy that a utility will file well in advance to establish rates for the next three-year period. The end result of this is that companies' level of profitability is very predictable relative to that of other industries. Of course, there is a cost for this as investors must pay a premium for these stocks. Furthermore, because profits here are less volatile, so too is dividend growth. The average increase for water utilities is currently in the range of 5% to 10%.

Industry Fundamentals

Change in this Industry historically doesn't occur overnight. Indeed, the storyline here has been consistent for some time. Following years and years of underinvestment, the nation found itself with an aging water infrastructure that is in poor condition. Many pipelines were installed 50 to 75 years ago. In badly need of replacement, water utilities have been spending heaving to replace old assets. This high level of expenditures will have to be maintained for decades.

Regulation

As we have highlighted in the past, one of the most significant factors in determining the profitability of a utility is the regulatory climate where it operates. Fortunately for the Water Utility Industry, state authorities and water utilities both realize what needs to be done, and are working constructively to address the issues. Regulators agree that the outlays being made to upgrade the country's infrastructure are required, so they are allowing fair return on investment to be made. Having a positive relationship may seem reasonable, but this is not the case for gas and electric utilities. Conflicts are not unusual.

Balance Sheets

Internally generated funds are not sufficient for these entities to cover their capital budgets. As a result, external financing is needed to make up the difference. The trend has been to sell debt rather than issuing new equity. We attribute this primarily to the low interest rates environment that has been prevalent for some time now. Still, on the whole, balance sheets here aren't overleveraged, as Financial Strength ratings average B+ to B++.

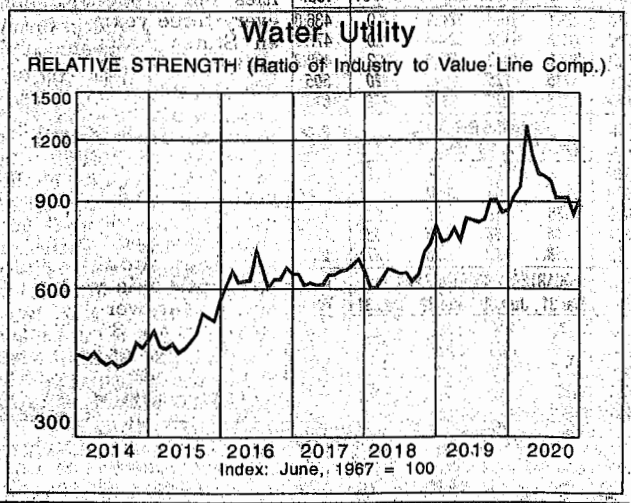
Scarcity

The market capitalization of all the stocks combined in this group total about $47 billion. (For example, Consolidated Edison, a New York-based electric utility has a market cap itself of approximately $25 billion.) Hence, water stocks always seem to be pricey because the demand outstrips supply.

Conclusion

Since the start of this year, the stock of *Middlesex Water* has been the only one out of the seven regulated water utilities to have outperformed the market averages. Still, though there are some timely stocks in the group, none can be considered inexpensive. Rather, the premium investors are willing to pay for these equities has been reduced. Certain Wall Street analysts have attributed the sluggish showing to rising yields on long-term Treasury bonds. Utilities are bought for the income they generate and this makes bonds look more attractive. In our opinion, the Water Utility Industry has not traded like electric and gas utilities for some time. Indeed, the average dividend yield of these equities is lower than the *Value Line* median. It should also be noted, that the typical member of this sector has below-average total return prospects out to 2024-2026. Nevertheless, very conservative accounts may find this a small price to pay for the low volatility and well-defined prospects. As always, we advise subscribers to read each individual report carefully before making any commitments to better understand the potential risk being assumed.

James A. Flood



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AMER. STATES WATER NYSE-AWR

RECENT PRICE 75.91 | P/E RATIO 31.5 (Trailing: 32.6 Median: 24.0) | RELATIVE P/E RATIO 1.44 | DIV'D YLD 1.9% | VALUE LINE 1789

TIMELINESS 3 Raised 3/5/21
SAFETY 2 Raised 7/20/12
TECHNICAL 4 Lowered 4/9/21
BETA .65 (1.00 = Market)

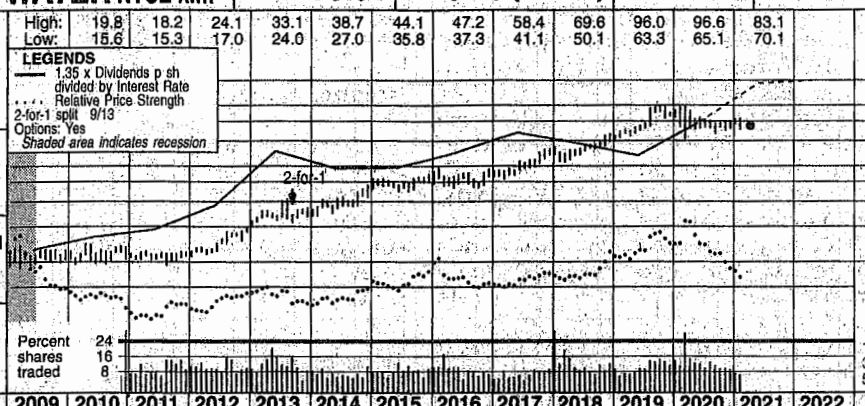
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$62-$108 $85 (10%)

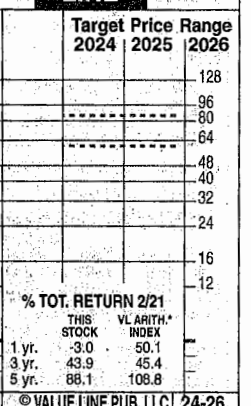
2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+10%)	5%
Low	60	(-20%)	-3%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	135	121	121
to Sell	129	135	142
Hld's(000)	25635	25731	25483





% TOT. RETURN 2/21

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.0	50.1
3 yr.	43.9	45.4
5 yr.	88.1	108.8

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	12.01	11.88	12.86	13.24	*13.55*	*13.75*	Revenues per sh	*17.20*
1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	2.70	2.96	2.84	3.26	3.34	*3.50*	*3.65*	"Cash Flow" per sh	*4.80*
.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.61	1.62	1.88	1.72	2.28	2.33	*2.40*	*2.55*	Earnings per sh [A]	*3.05*
.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	.99	1.06	1.16	1.28	*1.40*	*1.52*	Div'd Decl'd per sh [B■]	*2.00*
2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	3.55	3.08	3.44	4.12	3.54	*4.05*	*4.00*	Cap'l Spending per sh	*4.25*
7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.45	15.19	16.33	17.39	*18.95*	*20.00*	Book Value per sh [D]	*23.20*
33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	36.68	36.76	36.85	36.89	*37.25*	*37.50*	Common Shs Outst'g [C]	*37.50*
21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	25.6	25.7	34.0	34.4	34.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*24.0*
1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.34	1.29	1.84	1.83	1.78			Relative P/E Ratio	*1.35*
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%	1.8%	1.5%	1.6%			Avg Ann'l Div'd Yield	*2.8%*
419.3	466.9	472.1	465.8	458.6	436.1	440.6	436.8	473.9	488.2	*505*	*515*	Revenues ($mill)	*645*
42.0	54.1	62.7	61.1	60.5	59.7	69.4	63.9	84.3	86.4	*90.0*	*95.0*	Net Profit ($mill)	*115*
41.7%	39.9%	36.3%	38.4%	38.4%	36.8%	36.0%	22.0%	22.6%	24.6%	*23.0%*	*24.0%*	Income Tax Rate	*23.0%*
2.0%	2.5%	--	--	--	TO 3	--	--	2.5%	--	*1.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
45.4%	42.2%	39.8%	39.1%	41.1%	39.4%	38.0%	40.5%	44.4%	47.2%	*45.0%*	*45.5%*	Long-Term Debt Ratio	*53.5%*
54.6%	57.8%	60.2%	60.9%	58.9%	60.6%	62.0%	59.5%	55.6%	52.8%	*55.0%*	*54.5%*	Common Equity Ratio	*46.5%*
749.1	787.0	810.4	832.6	791.5	1015.3	854.9	938.4	1082.5	1216.2	*1280*	*1380*	Total Capital ($mill)	*1620*
896.5	913.8	981.5	1003.5	1060.8	1150.9	1205.0	1296.3	1415.7	1512.0	*1600*	*1700*	Net Plant ($mill)	*1925*
7.1%	8.3%	8.9%	8.6%	9.0%	8.6%	9.3%	7.9%	8.9%	8.0%	*8.0%*	*8.0%*	Return on Total Cap'l	*8.5%*
10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	*13.0%*	*12.5%*	Return on Shr. Equity	*13.0%*
10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	*13.0%*	*12.5%*	Return on Com Equity	*13.0%*
5.3%	6.6%	6.8%	5.7%	6.0%	5.3%	6.2%	4.5%	6.9%	6.1%	*6.0%*	*5.0%*	Retained to Com Eq	*4.5%*
49%	45%	47%	53%	54%	56%	52%	61%	51%	55%	*58%*	*60%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $575.0 mill. **Due in 5 Yrs** $136.0 mill.
LT Debt $574.6 mill. **LT Interest** $22.5 mill. (47% of Cap'l)

Leases, Uncapitalized: Annual rentals $2.6 mill.
Pension Assets-12/19 $213.1 mill. **Oblig.** $272.8 mill.

Pfd Stock None

Common Stock 36,898,213 shs. as of 2/19/20

MARKET CAP: $2.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	7.1	1.3	36.7
Accts Receivable	23.4	20.9	29.2
Other	101.0	100.3	91.2
Current Assets	131.5	122.5	157.1
Accts Payable	59.5	55.6	63.8
Debt Due	40.3	5.3	.4
Other	46.8	55.1	54.4
Current Liab.	146.6	116.0	118.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	2.5%	.5%	*5.0%*
"Cash Flow"	5.5%	3.0%	*7.0%*
Earnings	9.0%	5.5%	*6.5%*
Dividends	8.5%	7.5%	*9.5%*
Book Value	5.5%	5.0%	*5.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	94.7	106.9	124.2	111.0	436.8
2019	101.7	124.7	134.5	113.0	473.9
2020	109.1	121.3	133.6	124.2	488.2
2021	*115*	*125*	*145*	*120*	*505*
2022	*118*	*127*	*148*	*122*	*515*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.29	.44	.62	.37	1.72
2019	.35	.72	.76	.45	2.28
2020	.38	.69	.72	.54	2.33
2021	*.45*	*.67*	*.75*	*.53*	*2.40*
2022	*.48*	*.72*	*.78*	*.57*	*2.55*

Calendar	QUARTERLY DIVIDENDS PAID [B■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.242	.242	.255	.255	.99
2018	.255	.255	.275	.275	1.06
2019	.275	.275	.305	.305	1.16
2020	.305	.305	.335	.335	1.28
2021	.335				

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Co., it supplies water to 261,976 customers in 10 California counties. Service areas include the metropolitan areas of Los Angeles and Orange Counties. The company also provides electricity to 24,545 customers in Big Bear Lake and San Bernardino Cnty. Provides water & wastewater services to U.S. military bases through its ASUS subsidiary. Sold Chaparral City Wtr. of AZ. (6/11). Employs 841. BlackRock, Inc. owns 15.9% of out. shares; Vanguard, 11.9%; off. & dir. 1.0%. (4/20 Proxy). Chairman; Lloyd Ross. Pres. & CEO: Robert Sprowls. Inc: CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Shares of American States Water have not performed well lately. Over the past three-month period, the price of the stock has declined about 2%. By comparison, the S&P 500 Index has increased 7%, a difference of nearly 900 basis points. **Meanwhile, a major rate case is pending.** California is a state where water utilities file a petition to raise prices once every three years. Last summer, the Golden States Water Company (GSWC) submitted the papers for rate hikes that would cover the years 2022 to 2024. The final decision on the case is not expected until late this year, at the earliest. Our earnings assumptions are based upon a reasonable ruling, as relations with the regulators has been mostly positive. An unexpectedly harsh decision would have a negative impact on the bottom line.

Earnings should advance at a decent clip both this year and next. The company's year-over-year share net will likely only increase 3% in 2021. (Utilities often see earnings growth slow in the year before new rates are determined.) In 2022, with the assistance of higher rates, we are estimating that earnings per share will climb 6%.

Dividend growth prospects seem to be somewhat brighter. At the company's August board meeting, we think the distribution per share will be raised $0.03, a 9% increase. This is near the very high end of the range for water utilities.

The company's nonregulated operations offer some potential upside. Through its ASUS business, the company operates water systems at U.S. Army installations. ASUS has been reasonably successful in winning its share of the many contracts the military has put out for bid. With more privatizations of these facilities planned, this segment could provide higher-margined revenues. That's because returns here are not capped, so there isn't a limit on profitability.

These neutrally ranked shares do not have appeal, at this time. Despite lagging the market, AWR is only ranked to perform in line with the major indexes in the year ahead. Moreover, over the pull to 2024-2026, total return potential is well-below the *Value Line* median, as the equity is already in its Target Price Range.

James A. Flood *April 9, 2021*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢); '11, 10¢. Next earnings report due mid-May.

(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.

(C) In millions, adjusted for split.

(D) Includes intangibles. As of 12/31/20; $1.1 million/$0.03 a share.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	95
Earnings Predictability	85

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AMERICAN WATER NYSE-AWK

RECENT PRICE 147.91 | P/E RATIO 35.4 (Trailing: 37.8 Median: 24.0) | RELATIVE P/E RATIO 1.62 | DIV'D YLD 1.6% | VALUE LINE 1790

TIMELINESS 2 Lowered 11/13/20
SAFETY 3 New 7/25/08
TECHNICAL 3 Lowered 4/9/21
BETA .85 (1.00 = Market)

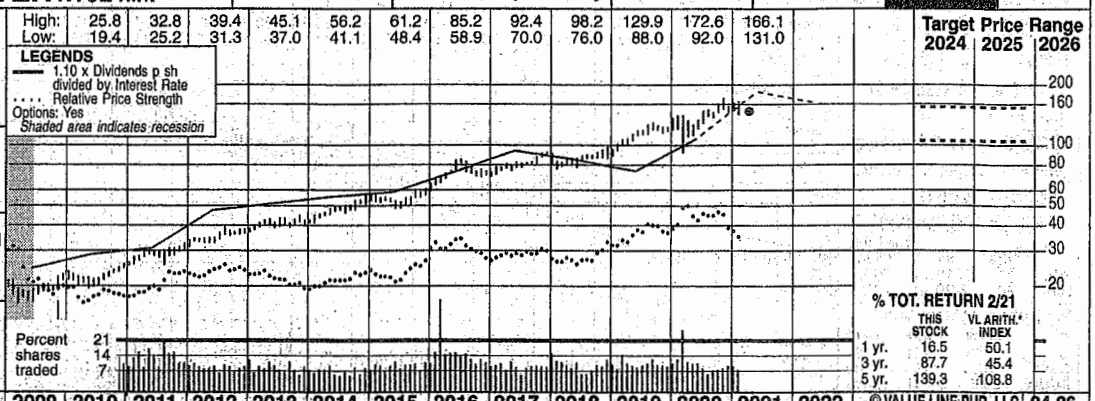
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$114-$247 $181 (20%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	155	(+5%)	3%
Low	105	(-30%)	-6%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	363	401	449
to Sell	371	337	344
Hld's(000)	151102	150689	148917



2005	2006E	2007E	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	18.81	19.04	19.97	20.83	*22.10*	*23.30*	Revenues per sh	*25.80*
--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.75	5.13	5.26	5.14	6.15	6.65	7.24	*7.70*	*8.25*	"Cash Flow" per sh	*9.70*
--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	2.38	3.15	3.43	3.91	*4.25*	*4.60*	Earnings per sh A	*5.50*
--	--	--	.40	.82	.86	.90	1.21	.84	1.21	1.33	1.47	1.62	1.78	1.96	2.15	*2.35*	*2.55*	Div'd Decl'd per sh B■	*3.10*
--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	8.04	8.78	9.15	10.05	*12.80*	*12.60*	Cap'l Spending per sh	*11.75*
--	23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.13	32.42	33.83	35.58	*37.45*	*39.40*	Book Value per sh D	*50.00*
--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.46	178.28	178.10	178.44	180.68	180.81	181.30	*181.50*	*182.00*	Common Shs Outst'g C	*190.00*
--	--	--	18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	33.8	27.3	32.9	35.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*23.5*
--	--	--	1.14	1.04	.93	1.05	1.06	1.12	1.05	1.03	1.45	1.70	1.47	1.75	1.83			Relative P/E Ratio	*1.30*
--	--	--	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.0%	2.1%	1.7%	1.6%			Avg Ann'l Div'd Yield	*2.4%*
						2666.2	2876.9	2901.9	3011.3	3159.0	3302.0	3357.0	3440.0	3610.0	3777.0	*4010*	*4240*	Revenues ($mill)	*4900*
						304.9	374.3	369.3	429.8	476.0	468.0	426.0	567.0	621.0	709.0	*770*	*835*	Net Profit ($mill)	*1045*
						39.5%	40.7%	39.1%	39.4%	39.1%	39.2%	53.3%	28.2%	25.5%	23.3%	*23.5%*	*23.5%*	Income Tax Rate	*24.0%*
						--	6.2%	5.1%	--	0.4%	--	--	--	5.1%	4.0%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
						55.7%	53.9%	52.4%	52.4%	53.7%	52.4%	54.7%	56.3%	58.5%	59.1%	*59.5%*	*61.5%*	Long-Term Debt Ratio	*61.0%*
						44.2%	46.1%	47.6%	47.4%	46.2%	47.5%	45.3%	43.6%	41.4%	40.9%	*40.5%*	*39.5%*	Common Equity Ratio	*39.0%*
						9580.3	9635.5	9940.7	10364	10911	10967	11875	13433	14760	15787	*16800*	*19000*	Total Capital ($mill)	*20000*
						11021	11739	12391	12900	13933	14992	16246	17409	18232	19710	*21150*	*22650*	Net Plant ($mill)	*24500*
						4.8%	5.4%	5.1%	5.5%	5.7%	5.6%	4.9%	5.4%	5.4%	5.7%	*6.0%*	*5.5%*	Return on Total Cap'l	*6.0%*
						7.2%	8.4%	7.8%	8.7%	9.4%	9.0%	7.9%	9.7%	10.1%	11.0%	*11.5%*	*11.5%*	Return on Shr. Equity	*11.0%*
						7.2%	8.4%	7.8%	8.7%	9.4%	9.0%	7.9%	9.7%	10.1%	11.0%	*11.5%*	*11.5%*	Return on Com Equity	*11.0%*
						3.5%	3.6%	4.7%	4.3%	4.7%	4.0%	2.5%	4.2%	4.4%	5.0%	*5.0%*	*5.0%*	Retained to Com Eq	*4.5%*
						52%	57%	40%	50%	50%	56%	68%	56%	57%	55%	*55%*	*55%*	All Div'ds to Net Prof	*56%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $10691 mil. Due in 5 Yrs $2500 mil.
LT Debt $9329 mil. LT Interest $354 mil. (59% of Cap'l)

Leases, Uncapitalized: Annual rentals $14.0 mill.
Pension Assets12/19 $1747.0 mill. Oblig. $2161.0 mill.
Pfd Stock $4.0 mill. **Pfd Div'd** $.3 mill

Common Stock 181,439,255 shares as of 2/19/21

MARKET CAP: $26.8 billion (Large Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	158	91	576
Accts Receivable	301	294	321
Other	322	900	1009
Current Assets	781	1285	1906
Accts Payable	175	203	189
Debt Due	1035	814	1611
Other	884	1028	1081
Current Liab.	2094	2045	2881

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	3.0%	3.5%	*4.5%*
"Cash Flow"	8.0%	7.0%	*6.5%*
Earnings	10.5%	8.0%	*8.5%*
Dividends	11.0%	11.5%	*8.5%*
Book Value	3.5%	4.5%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	761	853	976	850	3440
2019	813	882	1013	902	3610
2020	844	931	1079	923	3777
2021	*880*	*995*	*1140*	*995*	*4010*
2022	*935*	*1055*	*1200*	*1050*	*4240*

Calendar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.59	.91	1.03	.62	3.15
2019	.62	.94	1.33	.54	3.43
2020	.68	.97	1.46	.80	3.91
2021	*.73*	*1.05*	*1.60*	*.87*	*4.25*
2022	*.80*	*1.15*	*1.70*	*.95*	*4.60*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.375	.415	.415	.415	1.62
2018	.415	.455	.455	.455	1.78
2019	.455	.50	.50	.50	1.96
2020	.50	.55	.55	.55	2.15
2021	.55				

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to approximately 15 million people in 46 states. Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86% of 2020 revenues. New Jersey is its largest market accounting for 24.5% of regulated revenues; Pennsylvania, 22.5%; Missouri, 10.6%. Has 6,800 employees. The Vanguard Grp, owns 11.7% of outstanding shares; BlackRock, Inc., 8.1%; officers & directors, less than 1.0%. (3/21 Proxy). President & CEO: Susan N. Story. Chairman: George MacKenzie. Address: 1 Water Street, Camden, NJ 08102. Tel.: 856-346-8200. Internet: www.amwater.com.

American Water Works completed another very successful year in 2020. Due in part to a strong fourth quarter, the water utility managed to post an impressive 14% share-earnings increase over 2019. One of the most attractive qualities about this industry is that the demand for water is relatively inelastic. Hence, the pandemic has had no real impact on the company.

The earnings picture remains bright. American Water has an aggressive acquisition policy (more below). This, plus solid cost controls, an expanding rate base, and the stable need for water, should ensure solid yearly earnings per share increases for the foreseeable future. We think the company's share net will rise 8% both this year and in 2022. Through 2024 to 2026, we estimate growth here should be in the 7%-10% range, a much higher rate than the typical utility.

The company ought to continue to following what has been a successful strategy. Management has been acquiring small, independent water districts for many years. Indeed, in 2020, 23 such purchases were made. Domestically, there are literally thousands of these undersized water entities that are run by local municipalities. Often they are inefficient and undercapitalized. American Water can merge these operations into its existing business and attain significant economies of scale. As a result, the utility's margins should continue to widen annually as long as this policy is in place.

Capital expenditures are large, but manageable. Like others in the group, the company is spending heavily to upgrade its pipelines and other assets. Also, most of the acquisitions require investment to ensure that they are in compliance with federal mandates. Over the past 10 years, capital outlays have totaled $28 billion. Out to mid-decade, annual outlays may average $2.2 billion to $2.5 billion. The balance sheet will likely handle this without deteriorating much.

These shares are timely. Since our January report, the equity has underperformed the market indexes by about 750 basis points. Thus, the premium investors usually have to pay for this industry standout has declined to some degree.

James A. Flood *April 9, 2021*

(A) Diluted earnings. Excludes nonrecur. losses: '08, $4.62; '09, $2.63; '11, $0.07. Disc. oper.: '06, ($0.04); '11, $0.03; '12, ($0.10); '13,($0.01). GAAP used as of 2014. Next earnings report due mid-May.
(B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available.
(C) In millions. (D) Includes intangibles. On 12/31/20: $1.559 billion, $8.59/share.
(E) Pro forma numbers for '06 & '07.

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

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CALIFORNIA WATER NYSE-CWT

RECENT PRICE 56.17 | P/E RATIO 31.4 (Trailing: 29.0 Median: 24.0) | RELATIVE P/E RATIO 1.43 | DIV'D YLD 1.6% | VALUE LINE 1791

TIMELINESS 1 Raised 3/19/21
SAFETY 3 Lowered 7/27/07
TECHNICAL 2 Lowered 4/9/21
BETA .65 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$43-$81	$62 (10%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+15%)	6%
Low	45	(-20%)	-3%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	109	101	122
to Sell	107	106	91
Hld's(000)	35580	36492	37534

	19.8	19.4	19.3	23.4	26.4	26.0	36.8	46.2	49.1	57.5	57.4	60.5
High:	16.9	16.7	16.8	18.4	20.3	19.5	22.5	32.4	35.3	44.6	39.7	51.8

LEGENDS
1.33 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 6/11
Options: Yes
Shaded area indicates recession

Target Price Range 2024 | 2025 | 2026

% TOT. RETURN 2/21

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.6	50.1
3 yr.	51.7	45.4
5 yr.	142.7	108.8

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.70	13.89	14.53	14.72	15.78	*16.00*	*15.95*	Revenues per sh	*16.30*
1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	3.00	3.11	3.14	3.88	*3.45*	*3.55*	"Cash Flow" per sh	*3.75*
.74	.67	.75	.95	.98	.91	.86	1.02	1.02	1.19	.94	1.01	1.40	1.36	1.31	1.97	*1.90*	*2.00*	Earnings per sh A	*2.25*
.57	.58	.58	.59	.59	.60	.62	.63	.64	.65	.67	.69	.72	.75	.79	.85	*.92*	*.98*	Div'd Decl'd per sh B ■	*1.15*
2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.58	2.76	3.69	4.77	5.40	5.65	5.64	5.93	*5.25*	*5.50*	Cap'l Spending per sh	*5.85*
7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.11	13.41	13.75	14.44	15.19	16.07	18.30	*18.35*	*18.25*	Book Value per sh C	*19.80*
36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.96	47.74	47.81	47.88	47.97	48.01	48.07	48.53	50.33	*51.00*	*52.00*	Common Shs Outst'g D	*53.00*
24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	19.7	24.8	29.6	26.9	30.3	39.3	24.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*24.0*
1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.04	1.25	1.55	1.35	1.64	2.09	1.29			Relative P/E Ratio	*1.30*
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%	1.8%	1.5%	1.7%			Avg Ann'l Div'd Yield	*2.1%*
						501.8	560.0	584.1	597.5	588.4	609.4	666.9	698.2	714.6	794.3	*815*	*830*	Revenues ($mill) E	*865*
						36.1	42.6	47.3	56.7	45.0	48.7	67.2	65.6	63.1	96.8	*97.0*	*105*	Net Profit ($mill)	*120*
						40.5%	37.5%	30.3%	33.0%	36.0%	35.5%	30.1%	24.5%	19.1%	11.1%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
						7.6%	8.0%	4.3%	2.7%	4.3%	6.1%	3.5%	3.1%	5.8%	3.3%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
						51.7%	47.8%	41.6%	40.1%	44.4%	44.6%	42.7%	49.3%	50.2%	45.9%	*44.5%*	*43.5%*	Long-Term Debt Ratio	*38.0%*
						48.3%	52.2%	58.4%	59.9%	55.6%	55.4%	57.3%	50.7%	49.8%	54.1%	*55.5%*	*56.5%*	Common Equity Ratio	*62.0%*
						931.5	998.2	1024.9	1045.9	1154.4	1191.2	1209.3	1440.2	1566.7	1702.4	*1685*	*1675*	Total Capital ($mill)	*1700*
						1381.1	1457.1	1515.8	1590.4	1701.8	1689.5	2048.0	2232.7	2406.4	2650.6	*2675*	*2700*	Net Plant ($mill)	*2850*
						5.5%	6.3%	6.0%	6.3%	5.2%	5.5%	7.1%	5.9%	5.5%	7.0%	*6.5%*	*7.0%*	Return on Total Cap'l	*8.0%*
						8.0%	9.0%	7.9%	9.1%	7.0%	7.4%	9.7%	9.0%	8.1%	10.5%	*10.5%*	*11.0%*	Return on Shr. Equity	*11.5%*
						8.0%	9.0%	7.9%	9.1%	7.0%	7.4%	9.7%	9.0%	8.1%	10.5%	*10.5%*	*11.0%*	Return on Com Equity	*11.5%*
						2.3%	3.4%	3.4%	4.1%	2.0%	2.4%	4.7%	4.0%	3.2%	6.0%	*5.5%*	*5.5%*	Retained to Com Eq	*5.5%*
						71%	62%	56%	55%	71%	68%	51%	55%	60%	43%	*48%*	*49%*	All Div'ds to Net Prof	*51%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $1156.2 mill. **Due in 5 Yrs** $357.0 mill.
LT Debt $781.1 mill. **LT Interest** $40.0 mill.
(Total interest coverage: 5.2x) (46% of Cap'l)

Pension Assets-12/20 $716.8 mill.
Oblig. $833.9 mill.

Pfd Stock None

Common Stock 50,330,000 shs.

MARKET CAP: $2.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	47.2	42.7	44.6
Other	141.5	142.0	221.4
Current Assets	188.7	184.7	266.0
Accts Payable	95.6	108.5	131.7
Debt Due	170.0	197.0	375.1
Other	55.6	53.2	81.9
Current Liab.	321.2	358.7	588.7

BUSINESS: California Water Service Group provides regulated and nonregulated water service to 492,600 customers in 100 communities in the state of California. Accounts for about 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. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '20: residential, 70%; business, 18%; industrial, 4%; public authorities, 5%; other 3%. Off. and dir. own 1% of common stock (4/20 proxy). Has 1,184 employees. Pres. and CEO: Martin A. Kropelnicki. Inc.: DE. Addr.: 1720 North First St., San Jose, CA 95112-4598. Tel.: 408-367-8200. Internet: www.calwatergroup.com.

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	3.5%	4.0%	*1.5%*
"Cash Flow"	6.0%	6.0%	*2.0%*
Earnings	5.0%	8.0%	*6.5%*
Dividends	3.0%	4.0%	*6.5%*
Book Value	5.0%	5.0%	*4.0%*

Calendar	QUARTERLY REVENUES ($ mill.) E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	134.6	174.9	221.3	167.4	698.2
2019	126.1	179.0	232.6	176.9	714.6
2020	125.6	175.5	304.1	189.1	794.3
2021	*155*	*205*	*255*	*200*	*815*
2022	*160*	*205*	*260*	*205*	*830*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	d.02	.31	.75	.32	1.36
2019	d.16	.35	.88	.24	1.31
2020	d.42	.11	1.94	.31	1.97
2021	*.08*	*.45*	*.95*	*.42*	*1.90*
2022	*.10*	*.45*	*1.00*	*.45*	*2.00*

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.18	.18	.18	.18	.72
2018	.1875	.1875	.1875	.1875	.75
2019	.1975	.1975	.1975	.1975	.79
2020	.2125	.2125	.2125	.2125	.85
2021	.230				

California Water Service Group reported solid financial results to wrap up 2020. The West Coast water service provider generated revenues of $189 million in the December period, or a 7% annual increase, thanks largely to rate hikes associated with the recently approved general rate case. Meanwhile, fourth-quarter share profits of $0.31, which were also buoyed by benefits from the general rate case decision, specifically higher operating income and lower taxes, logged a healthy 29% advance compared to the year-earlier tally.

California Water is on a buying spree. The company's subsidiary, Hawaii Water Service, announced that it has received approval to acquire the assets of Kapalua Water and Kapalua Waste Treatment Company, which will add roughly 1,000 service connections in the area. In addition, a deal has been inked to purchase the water system assets of Skylanda Mutual Water Company. Pending regulatory approval, the transaction, which would add almost 19,000 service connection in California, is expected to be finalized early next year. Overall, tuck-in acquisitions will probably be a staple in the company's long-term growth strategy.

The company is in the early innings of a massive infrastructure improvement program. Indeed, management is taking an aggressive approach to upgrading and revamping its aging water delivery, transportation, and treatment facilities. For this year, its capital spending budget for infrastructure-related projects is approximately $285 million. Over the pull to 2025, the company is likely to invest upwards of $700 million. Lastly, California Water has already been given the green light by the California Public Utilities Commission to tap the debt and equity markets.

We continue to like this issue for subscribers with a short-term investment horizon. The stock has been raised one notch on our Timeliness Ranking Scale, to 1 (Highest) and, thus is slated to outpace the broader market averages over the coming six to 12 months. On the other hand, buy-and-hold accounts should turn the page, as total return potential out to 2024-2026 is unenticing at recent levels.

Nicholas P. Patrikis *April 9, 2021*

(A) Basic EPS. Excl. nonrecurring gain (loss): '11, 4¢. Next earnings report due early May.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '20 : $27.6 mill., $0.55/sh.
(D) In millions, adjusted for split.
(E) Excludes non-regulated revenues

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	70
Earnings Predictability	65

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CONSOL. WATER CO. NDQ-CWCO

RECENT PRICE 13.48 | P/E RATIO 26.4 (Trailing: 40.8 / Median: 24.0) | RELATIVE P/E RATIO 1.21 | DIV'D YLD 2.5% | VALUE LINE 1792

TIMELINESS 5 Lowered 2/12/21
SAFETY 3 New 1/17/14
TECHNICAL 4 Raised 3/26/21
BETA .85 (1.00 = Market)

18-Month Target Price Range

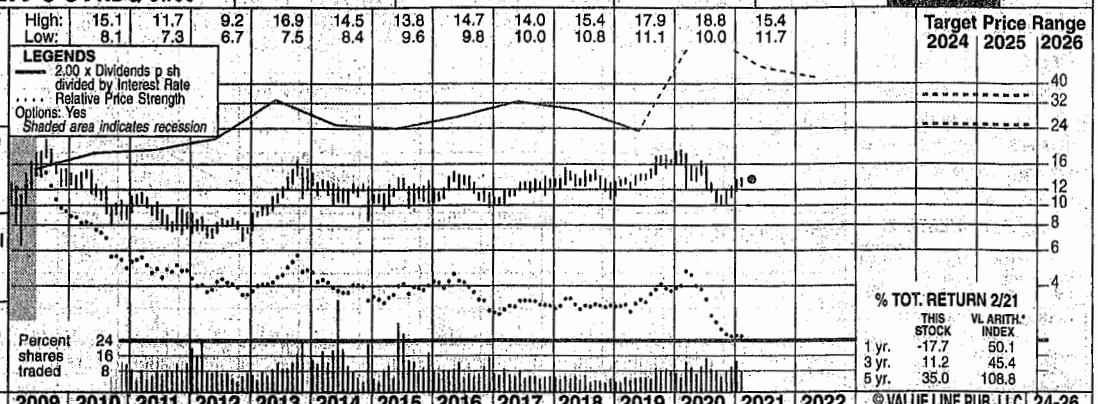
Low-High	Midpoint (% to Mid)
$9-$21	$15 (10%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+160%)	*30%*
Low	25	(+85%)	*20%*

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	48	28	40
to Sell	45	57	43
Hld's(000)	8027	7661	7487



% TOT. RETURN 2/21

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-17.7	50.1
3 yr.	11.2	45.4
5 yr.	35.0	108.8

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
1.12	2.71	3.41	4.52	3.99	3.49	3.79	4.49	4.35	4.46	3.86	3.89	4.18	4.39	4.57	*4.90*	*4.60*	*4.95*	Revenues per sh	*8.75*
.37	.87	1.20	.95	1.18	.86	.83	1.17	.96	.80	.89	.95	1.12	1.15	1.05	*.85*	*1.05*	*1.10*	"Cash Flow" per sh	*2.00*
.23	.59	.79	.50	.74	.43	.42	.64	.58	.42	.51	.27	.41	.68	.56	*.35*	*.55*	*.60*	Earnings per sh A	*1.45*
.12	.24	.20	.33	.28	.30	.30	.30	.30	.30	.30	.30	.31	.34	.34	*.34*	*.34*	*.34*	Div'd Decl'd per sh B■	*.75*
.77	1.83	.54	.46	.18	.09	.96	.31	.29	.32	.21	.23	.31	1.08	.23	*.15*	*.25*	*.25*	Cap'l Spending per sh	*.45*
2.54	7.49	8.21	8.36	8.53	8.69	8.83	9.20	9.44	9.58	9.81	9.79	9.91	10.34	10.88	*11.20*	*11.45*	*11.70*	Book Value per sh D	*12.80*
23.46	14.13	14.40	14.53	14.54	14.55	14.57	14.59	14.69	14.72	14.78	14.87	14.92	14.98	15.05	*15.20*	*15.30*	*15.40*	Common Shs Outst'g C	*16.00*
NMF	43.0	35.4	37.8	19.0	26.9	22.4	12.4	20.0	28.3	22.7	44.8	29.0	19.4	25.7	*Bold figures are Value Line estimates*			Avg Ann'l P/E Ratio	*22.0*
NMF	2.32	1.88	2.27	1.27	1.71	1.41	.79	1.12	1.49	1.14	2.35	1.46	1.05	1.37				Relative P/E Ratio	*1.20*
.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%	2.4%				Avg Ann'l Div'd Yield	*2.5%*
						55.2	65.5	63.8	65.6	57.1	57.9	62.3	65.7	68.8	*75.0*	*70.0*	*76.0*	Revenues ($mill)	*140*
						6.1	9.3	8.6	6.3	7.5	4.0	6.1	10.2	8.6	*5.5*	*8.5*	*9.0*	Net Profit ($mill)	*23.0*
						--	--	--	--	--	--	--	--	1.0%	*NMF*	*NMF*	*NMF*	Income Tax Rate	*NMF*
						4.0%	--	--	--	--	--	--	--	--	*Nil*	*Nil*	*Nil*	AFUDC % to Net Profit	*NMF*
						5.1%	3.7%	--	--	--	--	--	--	--	*Nil*	*Nil*	*Nil*	Long-Term Debt Ratio	*Nil*
						94.9%	96.3%	99.8%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	*100%*	*100%*	*100%*	Common Equity Ratio	*100%*
						135.6	139.4	138.9	141.2	145.0	145.6	147.9	155.0	163.8	*170*	*175*	*180*	Total Capital ($mill)	*205*
						64.3	61.6	58.6	56.4	53.7	53.1	50.5	64.9	61.2	*61.0*	*62.0*	*62.0*	Net Plant ($mill)	*75.0*
						5.0%	7.0%	6.2%	4.4%	5.2%	2.7%	4.2%	6.6%	5.2%	*3.0%*	*5.0%*	*5.0%*	Return on Total Cap'l	*11.0%*
						4.7%	6.9%	6.2%	4.4%	5.2%	2.7%	4.2%	6.6%	5.2%	*3.0%*	*5.0%*	*5.0%*	Return on Shr. Equity	*11.0%*
						4.7%	6.9%	6.2%	4.4%	5.2%	2.7%	4.1%	6.6%	5.2%	*3.0%*	*5.0%*	*5.0%*	Return on Com Equity	*11.0%*
						1.0%	3.6%	3.0%	1.2%	2.1%	NMF	1.1%	3.3%	2.1%	*NMF*	*2.0%*	*2.0%*	Retained to Com Eq	*5.5%*
						79%	48%	51%	73%	59%	112%	73%	50%	60%	*97%*	*62%*	*57%*	All Div'ds to Net Prof	*52%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $0.1 Due in 5 Yrs $0.1
LT Debt $0.1 LT Interest NMF (0% of Total Cap'l)
Leases, Uncapitalized: Annual rentals $.9 mill.

No Defined Benefit Pension Plan

Pfd Stock NMF (33,059 shares out.) Div'd NMF

Common Stock 15,112,975 shs. as of 11/10/20

MARKET CAP: $200 million (Small Cap)

CURRENT POSITION ($MILL.)	2018	2019	9/30/20
Cash Assets	31.3	42.9	38.2
Accts Receivable	24.2	23.2	24.4
Other	6.9	7.3	9.0
Current Assets	62.4	73.4	71.6
Accts Payable	4.6	3.7	3.1
Debt Due	--	--	--
Other	3.3	4.5	4.6
Current Liab.	7.9	8.2	7.7

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '24-'26
Revenues	5.0%	.5%	*12.0%*
"Cash Flow"	2.0%	.5%	*9.0%*
Earnings	-3.0%	-4.5%	*15.0%*
Dividends	5.0%	--	*12.5%*
Book Value	5.0%	2.0%	*2.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	14.3	15.9	18.8	16.7	65.7
2019	17.0	18.3	15.9	17.6	68.8
2020	20.8	19.1	17.7	*17.4*	*75.0*
2021	*19.0*	*17.0*	*17.0*	*17.0*	*70.0*
2022	*21.0*	*18.0*	*19.0*	*18.0*	*76.0*

Calendar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.14	.14	.30	.10	.68
2019	.17	.16	.11	.12	.56
2020	.19	d.04	.09	*.11*	*.35*
2021	*.13*	*.15*	*.12*	*.15*	*.55*
2022	*.15*	*.16*	*.14*	*.15*	*.60*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.075	.075	.075	.075	.30
2018	.085	.085	.085	.085	.34
2019	.085	.085	.085	.085	.34
2020	.085	.085	.085	.085	.34
2021	.085				

BUSINESS: Consolidated Water Co. Ltd. develops and operates desalination plants and water distribution systems in areas where naturally occurring supplies of water are scarce. It provides water in the Cayman Islands, the Bahamas, and the British Virgin Islands. At 12/31/19, it operated 12 plants with a capacity of 25.6 million gallons per day. Sold Bali operations and divested Belize assets in '19. Also manufactures products for the industry through Aerex sub. Inc.: Cayman Is. Employs 105. Pres./CEO: F. McTaggart. Based on 4/19 proxy Offs./ Dirs. own 4.8% of stock; Amundi Asset; 7.7%; BlackRock, 5.6%. (No proxy filed in 2020). Addr.: Regatta Off. Pk. Windward Three, West Bay Rd., P.O. Box 1114 Grand Cayman, KYI-1102, Cayman Is. Tel.: (345) 945-4277. Int.: www.cwco.com.

Investors will have to wait for Consolidated Water's full-year 2020 results. The company will not file its fourth-quarter results until after this report goes to press. Since the value of certain assets must be evaluated quarterly (with the largest changes usually occurring at year end), we have less confidence in our December period's bottom-line estimate.

Meanwhile, Consolidated is looking to recover from a significant blow suffered last year. In 2016, the builder and operator of desalination plants began development of the Rosarito project, which was a proposed Mexico-based facility that would provide badly needed water to the city of Tijuana. Despite some bumps in the road, progress seemed on track. However, Mexican authorities terminated the contract. Thus, four years of management's efforts and funds were wasted. Rosarito was classified as a discontinued operation, removing losses from its 2020 earnings. This also marked the second-straight time that Consolidated wrote off a major desalination facility, as was the case with Indonesia-based CW-Bali.

The focus seems to be shifting toward the United States. California has persistently struggled to provide residents with potable water. With its large coastline, there are ample opportunities to build new desalination facilities in the state. Currently, there are 11 such projects that are in operation and 10 proposed. We expect to see the company make its next major push here. This would also improve its exposure to regulatory risk (more below). In Arizona, research is underway on how to treat a large amount of brackish water deposits using the desalination process.

The main regulated foreign operations should remain the same. Consolidated provides clean water to the Cayman Islands, the Bahamas, and the British Virgin Islands. Basically, operations are sound. However, there has been sometimes difficult relationships with the countries' regulators, who determine what rates can be charged.

These shares carry our lowest rank for Timeliness (5). Conservative water utility investors should also note that this equity carries a much different risk profile than others in the industry.

James A. Flood *April 9, 2021*

(A) Fully diluted earnings. Excludes gains from discontinued operations: '17, $0.07 a share; '18, $0.07 a share; '19, $0.24 a share; losses in 2020 of $0.30 a share. Next earnings report due late May.
(B) Dividends historically paid in late January, April, July, and October. ■ Dividend reinvestment plan available.
(C) In millions, adjusted for stock split.
(D) Includes intangibles. As of 9/30/20, $17.7 million/$1.17 a share.

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

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ESSENTIAL UTIL. NYSE-WTRG

RECENT PRICE 44.64 | P/E RATIO 27.4 (Trailing: 39.9 Median: 23.0) | RELATIVE P/E RATIO 1.25 | DIV'D YLD 2.4% | VALUE LINE 1793

TIMELINESS 2 Raised 2/5/21
SAFETY 3 Lowered 1/8/21
TECHNICAL 3 Lowered 4/9/21
BETA .95 (1.00 = Market)

18-Month Target Price Range

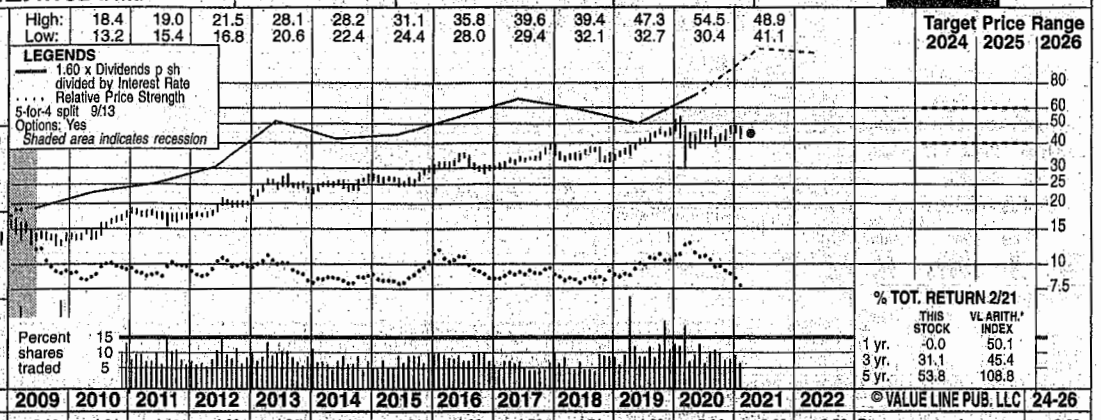
Low-High	Midpoint (% to Mid)
$32-$77	$55 (20%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+35%)	10%
Low	40	(-10%)	Nil

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	250	237	264
to Sell	235	227	221
Hld's(000)	161504	167838	169334



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.62	4.56	4.71	4.03	5.96	*8.00*	*8.50*	Revenues per sh	*8.60*
.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.89	1.87	2.07	2.12	1.90	1.73	2.21	*2.40*	*2.65*	"Cash Flow" per sh	*2.85*
.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	1.32	1.35	1.08	1.04	1.12	*1.65*	*1.80*	Earnings per sh A	*1.90*
.32	.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	.74	.79	.85	.91	.97	*1.03*	*1.10*	Div'd Decl'd per sh B■	*1.40*
1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.16	2.69	2.78	2.49	3.41	*4.00*	*4.00*	Cap'l Spending per sh	*3.75*
5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	11.02	11.28	17.58	19.09	*19.70*	*20.30*	Book Value per sh	*23.35*
161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	178.59	176.54	177.39	177.71	178.09	220.76	245.39	*250.00*	*252.50*	Common Shs Outst'g C	*270.00*
31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	24.7	32.6	39.1	39.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*27.0*
1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.25	1.24	1.76	2.08	2.06			Relative P/E Ratio	*1.50*
1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	2.3%	2.4%	2.4%	2.2%	2.2%			Avg Ann'l Div'd Yield	*2.8%*
712.0	757.8	768.6	779.9	814.2	819.9	809.5	838.1	889.7	1462.7	*2000*	*2150*	Revenues ($mill)	*2320*
144.8	153.1	205.0	213.9	201.8	234.2	239.7	192.0	224.5	284.8	*310*	*365*	Net Profit ($mill)	*515*
32.9%	39.0%	10.0%	10.5%	6.9%	8.2%	6.6%	--	6.6%	6.6%	*5.0%*	*6.0%*	Income Tax Rate	*8.0%*
--	--	1.1%	2.4%	3.1%	3.8%	6.3%	6.8%	7.2%	4.5%	*7.0%*	*7.5%*	AFUDC % to Net Profit	*7.0%*
52.7%	52.7%	48.9%	48.5%	50.3%	48.4%	50.6%	54.4%	43.1%	54.0%	*55.0%*	*56.0%*	Long-Term Debt Ratio	*56.0%*
47.3%	47.3%	51.1%	51.5%	49.7%	51.6%	49.4%	45.6%	56.9%	46.0%	*45.0%*	*44.0%*	Common Equity Ratio	*44.0%*
2646.8	2929.7	3003.6	3216.0	3469.5	3587.7	3965.4	4407.8	6824.2	10192	*11000*	*11775*	Total Capital ($mill)	*14300*
3612.9	3936.2	4167.3	4402.0	4688.9	5001.6	5399.9	5930.3	6345.8	9512.9	*10175*	*10800*	Net Plant ($mill)	*12100*
6.9%	6.6%	8.0%	7.8%	6.9%	7.6%	7.1%	5.5%	4.2%	3.7%	*3.5%*	*4.5%*	Return on Total Cap'l	*5.5%*
11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.2%	9.6%	5.8%	6.1%	*6.0%*	*7.0%*	Return on Shr. Equity	*9.5%*
11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.2%	9.6%	5.8%	6.1%	*6.0%*	*7.0%*	Return on Com Equity	*9.5%*
4.6%	4.3%	6.7%	6.1%	4.7%	5.6%	5.1%	2.1%	.9%	1.1%	*1.5%*	*1.5%*	Retained to Com Eq	*2.0%*
60%	61%	50%	52%	60%	56%	58%	79%	84%	82%	*76%*	*76%*	All Div'ds to Net Prof	*74%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $5670.3 mill. **Due in 5 Yrs** $1032 mill.
LT Debt $5507.7 mill. **LT Interest** $185.0 mill. (54% of Cap'l)

Pension Assets-12/20 $426.8 mill. **Oblig.** $486.2 mill.

Pfd Stock None
Common Stock 245,393,761 shares as of 2/15/21

MARKET CAP: $11.0 billion (Large Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	3.6	1868.9	4.8
Receivables	101.2	67.1	154.8
Inventory (AvgCst)	15.8	18.4	58.4
Other	26.6	58.3	162.2
Current Assets	147.2	2012.7	380.2
Accts Payable	77.3	74.9	177.5
Debt Due	160.0	130.8	162.6
Other	161.7	113.1	263.8
Current Liab.	399.0	318.8	603.9

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	2.0%	2.0%	*10.0%*
"Cash Flow"	4.5%	1.0%	*6.5%*
Earnings	5.5%	-1.5%	*10.0%*
Dividends	7.5%	7.5%	*7.5%*
Book Value	9.5%	11.5%	*4.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	194.3	211.9	226.2	205.7	838.1
2019	201.1	218.9	243.6	226.1	889.7
2020	255.6	384.5	348.6	474.0	1462.7
2021	*650*	*385*	*430*	*535*	*2000*
2022	*690*	*415*	*460*	*585*	*2150*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.29	.37	.44	d.02	1.08
2019	.09	.25	.38	.28	1.04
2020	.21	.29	.22	.40	1.12
2021	*.63*	*.30*	*.30*	*.42*	*1.65*
2022	*.67*	*.33*	*.35*	*.45*	*1.80*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.1913	.1913	.2047	.2047	.79
2018	.2047	.2047	.219	.219	.85
2019	.219	.219	.2343	.2343	.91
2020	.2343	.2343	.2507	.2507	.97
2021	.2507				

BUSINESS: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2020, Aqua Amer. provided water and wastewater services to about 5 million people in PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Employed 3,180 Acquired AquaSource, 7/13; North Maine Utilities, 7/15; and others. Water respn. for 65% of revenues in 2020; residential, 39%; commercial, 10%; industrial, wastewater & other, 26%. Gas 35%. Off. & dir. own less than 1% of the common stock; BlackRock, 10.5%; Vanguard, 10.4%; (4/20 proxy). Canadian Pension Plan about 8.8%. Pres. & CEO: Christopher Franklin. Inc.: PA Addr.: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.

Starting in the June quarter, Essential Utilities' figures ought to be comparable to 2020's. In mid-March of last year, Essential became a much different company (including taking on a new name), when it made the large acquisition of Peoples Gas for total consideration of about $5.3 billion. The purchase turned the new entity into one that is not totally water based. Despite not generating revenues for almost 85% of the first quarter, which is usually an important period for a gas entity, Peoples still accounted for 35% of Essential's revenues last year.

The outlook for earnings is positive. The company was able to increase its share net last year even though it had to absorb many merger-related charges. The process is mostly completed now. So, aided by cost-containment efforts, we expect WTRG to have a very strong share-net showing in 2021 and 2022.

The balance sheet is more leveraged. As a result of the merger, Essential's debt load increased significantly. As can be seen in the numbers array, long-term debt-to-equity rose from 43% to 54% during 2020. Capital expenditures are estimated to be $1 billion this year, which means that more borrowing will be required. Following 2022, we think the situation will likely stabilize, and Essential's finances should remain average for a water utility.

Essential's regulatory treatment will probably not be on par with other members of the group. Gas and electric utilities have historically not had great relations with the authorities that determine the rates they can charge customers. On the other hand, water utilities and the authorities have worked well together. Part of this is due to water regulators' understanding that there has been under investment in the domestic infrastructure and large amounts of capital spending are required to make upgrades.

These share have moved up a notch in rank, to 2 (Above Average), since our January report. The equity is pegged to outperform the market averages in the year ahead. Long-term total return potential is still unattractive even though WTRG has trailed the S&P 500 Index significantly over the past three months.

James A. Flood *April 9, 2021*

(A) Diluted egs. Excl. nonrec. gains: '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. Quarterly EPS do not add in '19 due to a large change in the number of shares outstanding in the Dec. period. Next earnings report May 5th. (B) Dividends historically paid in early March, June, Sept., & Dec. ■ Div'd. reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits. (D) Includes intangibles: 12/31/20, $2,325 bill./$9.47 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	60

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MIDDLESEX WATER NDQ-MSEX

RECENT PRICE 80.66 | P/E RATIO 36.7 (Trailing: 37.0 Median: 23.0) | RELATIVE P/E RATIO 1.68 | DIV'D YLD 1.4% | VALUE LINE 1794

TIMELINESS 1 Raised 11/13/20
SAFETY 2 New 10/21/11
TECHNICAL 4 Lowered 4/9/21
BETA .70 (1.00 = Market)

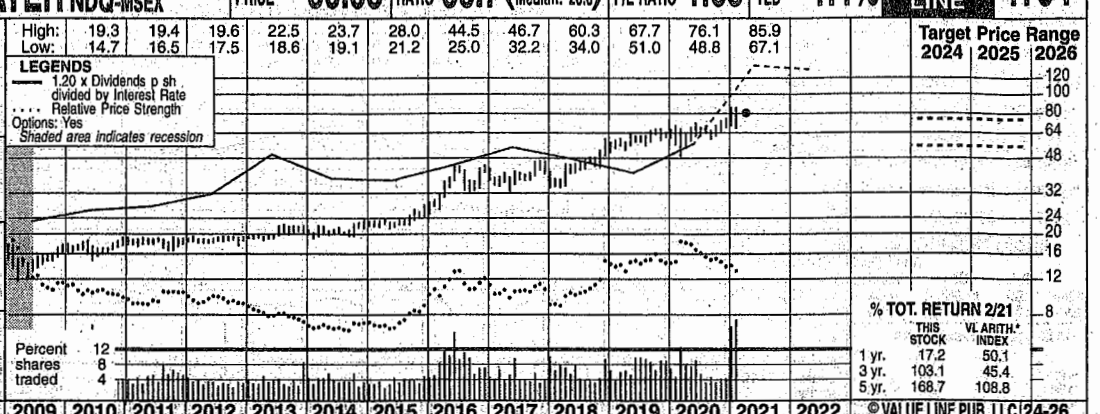
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$58-$106 $82 (0%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(-5%)	Nil
Low	55	(-30%)	-7%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	68	52	67
to Sell	55	69	49
Hld's(000)	10359	10357	10675



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.00	8.42	7.72	8.10	*8.45*	*8.70*	Revenues per sh	*9.15*
1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	1.97	2.17	2.24	2.89	2.90	3.25	*3.15*	*3.25*	"Cash Flow" per sh	*3.70*
.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	1.38	1.38	1.96	2.01	2.18	*2.25*	*2.35*	Earnings per sh A	*2.70*
.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	.98	1.04	*1.10*	*1.15*	Div'd Decl'd per sh B■	*1.35*
2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.59	2.91	3.08	4.40	5.11	6.04	*5.50*	*5.50*	Cap'l Spending per sh	*6.25*
8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	14.02	15.17	18.57	19.81	*19.45*	*19.60*	Book Value per sh	*20.85*
11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	16.35	16.40	17.43	17.47	*17.75*	*17.85*	Common Shs Outst'g C	*18.00*
27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.4	22.2	29.7	30.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*24.0*
1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.34	1.43	1.20	1.58	1.56			Relative P/E Ratio	*1.30*
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%	2.1%	1.6%	1.6%			Avg Ann'l Div'd Yield	*2.1%*
102.1	110.4	114.8	117.1	126.0	132.9	130.8	138.1	134.6	141.6	*150*	*155*	Revenues ($mill)	*165*
13.4	14.4	16.6	18.4	20.0	22.7	22.8	32.5	33.9	38.4	*40.0*	*42.0*	Net Profit ($mill)	*49.0*
32.7%	33.9%	34.1%	35.0%	34.5%	34.0%	32.7%	2.8%	2.8%	2.8%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
6.1%	3.4%	1.9%	1.7%	1.9%	2.7%	3.1%	1.4%	3.4%	3.9%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
42.3%	41.5%	40.4%	40.5%	39.4%	37.9%	37.5%	37.8%	41.5%	44.0%	*42.5%*	*41.5%*	Long-Term Debt Ratio	*40.0%*
56.6%	57.4%	58.7%	58.8%	59.8%	61.5%	61.8%	61.6%	58.2%	55.7%	*57.0%*	*58.0%*	Common Equity Ratio	*60.0%*
312.5	316.5	321.4	335.8	345.4	355.4	370.7	404.1	556.7	621.5	*610*	*600*	Total Capital ($mill)	*630*
422.2	435.2	446.5	465.4	481.9	517.8	557.2	618.5	705.7	796.6	*800*	*815*	Net Plant ($mill)	*835*
5.2%	5.4%	5.9%	6.3%	6.6%	7.1%	6.9%	8.9%	6.7%	6.8%	*7.0%*	*7.5%*	Return on Total Cap'l	*8.0%*
7.5%	7.8%	8.7%	9.2%	9.6%	10.3%	9.8%	12.9%	10.4%	11.0%	*11.5%*	*12.0%*	Return on Shr. Equity	*13.0%*
7.5%	7.8%	8.7%	9.3%	9.6%	10.3%	9.9%	13.0%	10.4%	11.1%	*11.5%*	*12.0%*	Return on Com Equity	*13.0%*
1.0%	1.4%	2.4%	3.1%	3.5%	4.3%	3.8%	7.0%	5.4%	5.8%	*6.0%*	*6.0%*	Retained to Com Eq	*6.5%*
87%	83%	73%	67%	63%	58%	62%	46%	48%	48%	*49%*	*49%*	All Div'ds to Net Prof	*50%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $282.5 mill. Due in 5 Yrs $43.7 mill.
LT Debt $273.2 mill. LT Interest $7.5 mill.
(Total interest coverage: 7.3x)
(44% of Cap'l)

Pension Assets-12/20 $88.9 mill.
Oblig. $115.9 mill.
Pfd Stock $2.4 mill. Pfd Div'd: $.1 mill.

Common Stock 17,473,000 shs.

MARKET CAP: $1.4 billion (Mid-Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	3.7	2.2	4.5
Other	27.1	26.9	29.6
Current Assets	30.8	29.1	34.1
Accts Payable	19.3	23.3	30.4
Debt Due	55.8	27.2	9.3
Other	19.3	14.5	17.1
Current Liab.	94.4	65.0	56.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	2.0%	2.0%	*2.0%*
"Cash Flow"	7.5%	10.5%	*3.5%*
Earnings	9.0%	12.5%	*4.5%*
Dividends	3.0%	5.0%	*5.5%*
Book Value	5.5%	8.0%	*2.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	31.2	34.9	38.7	33.3	138.1
2019	30.7	33.4	37.8	32.7	134.6
2020	31.8	35.3	39.9	34.6	141.6
2021	*33.0*	*37.0*	*44.0*	*36.0*	*150*
2022	*34.0*	*38.0*	*45.0*	*38.0*	*155*

Calendar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.27	.52	.74	.43	1.96
2019	.39	.49	.66	.46	2.01
2020	.44	.55	.72	.47	2.18
2021	*.45*	*.55*	*.73*	*.52*	*2.25*
2022	*.47*	*.57*	*.76*	*.55*	*2.35*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.21125	.21125	.21125	.22375	.86
2018	.22375	.22375	.22375	.24	.91
2019	.24	.24	.24	.2562	.98
2020	.2562	.2562	.2562	.2725	1.04
2021	.2725				

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 2020, the Middlesex System accounted for 59% of operating revenues. At 12/31/20, the company had 348 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.1% of the com. stock; BlackRock Inst. Trust Co., 7.7% (4/20 proxy). Add.: 485 C Route 1 South, Suite 400, Iselin, NJ 08830. Tel.: 732-634-1500. Int.: www.middlesexwater.com.

Shares of Middlesex Water continue to march higher. The equity established yet another all-time high in early February, but has since retracted modestly to slightly above $80 per share. Still, the stock is up about 10% in price since our early-January review, keeping intact its enviable multiyear price ascent. Based on our Timeliness ranking scale, MSEX shares are slated to outperform (1: Highest) the broader market over the coming six to 12 months. Thus, they may pique the interest of near-term accounts.

The stage is set for respectable top- and bottom-line growth this year. Favorable operating trends, which were evident in the fourth quarter, are likely to persist over the near- to intermediate-terms. These include increased residential and wholesale water consumption owing to more people staying at home and greater handwashing frequency, as well as an expanding customer base in its Delaware water system. A recently inked contract with Highland Park in its New Jersey system is a positive, too. Adding it all up, revenues are poised to expand 6%, to $150 million, and will likely be accompanied by a 3% earnings advance, to $2.25 per share.

From a financial perspective, the company ought to be a stable performer over the pull to mid-decade. Modest revenue and earnings growth is likely on tap for 2022. Meanwhile, significant infrastructure spending may well overflow into the 3- to 5-year time frame. Management has laid out a budget of nearly $300 million through its Water For Tomorrow program, which aims to upgrade watermains, piping, and wastewater treatment facilities. Most recently, the company announced a $10 million investment to improve its drinking water infrastructure in New Jersey. Overall, aggressive spending ought to eventually curb unnecessary operating costs, and may well facilitate additional rate hikes going forward.

Shares of Middlesex Water are currently trading beyond the upper end of our 3- to 5-year Target Price parameters. This is so even after modestly lifting our P/E multiple to 24x. All in all, subscribers with an investment horizon of 18 months or longer can find more-attractive options elsewhere, at this juncture.

Nicholas P. Patrikis *April 9, 2021*

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

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	85

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SJW GROUP NYSE-SJW

RECENT PRICE 63.42 | P/E RATIO 26.9 (Trailing: 29.6 Median: 21.0) | RELATIVE P/E RATIO 1.23 | DIV'D YLD 2.1% | VALUE LINE 1795

TIMELINESS — E
SAFETY 3 New 4/22/11
TECHNICAL — E
BETA .85 (1.00 = Market)

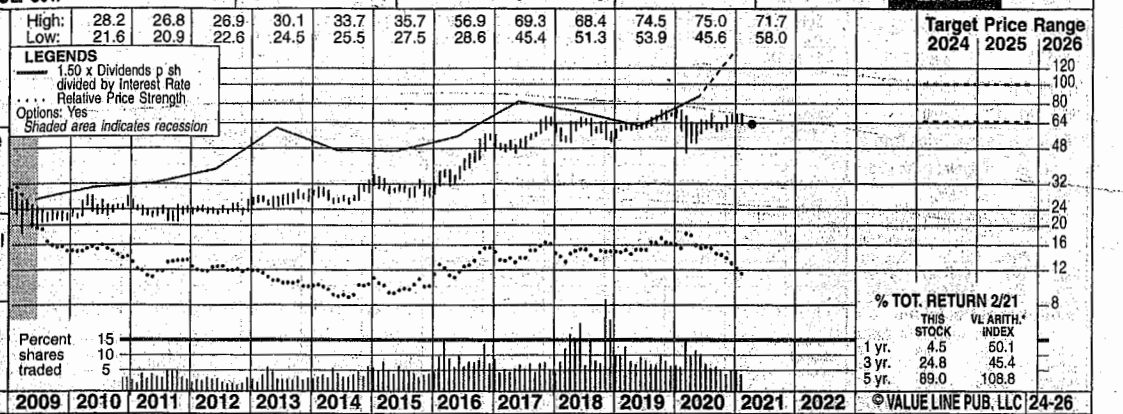
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$53-$123 $88 (40%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+60%)	14%
Low	65	(Nil)	3%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	78	62	80
to Sell	75	77	68
Hld's(000)	19939	19827	19850



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	©VALUE LINE PUB. LLC	24-26
9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.97	14.00	14.78	19.77	*20.00*	*20.65*	Revenues per sh	*22.15*
2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	5.24	3.29	3.67	5.28	*4.25*	*4.40*	"Cash Flow" per sh	*5.30*
1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.86	1.82	1.35	2.14	*2.55*	*2.70*	Earnings per sh [A]	*3.65*
.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	1.12	1.20	1.28	*1.36*	*1.44*	Div'd Decl'd per sh [B■]	*1.72*
2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	7.26	5.08	6.25	7.44	*6.75*	*7.00*	Cap'l Spending per sh	*7.50*
10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	22.57	31.31	31.27	32.12	*35.60*	*36.95*	Book Value per sh	*40.85*
18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	20.52	28.40	28.46	28.56	*29.50*	*29.75*	Common Shs Outst'g [C]	*30.00*
19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	18.8	32.7	47.8	30.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*23.0*
1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	.82	.95	1.77	2.55	1.56			Relative P/E Ratio	*1.30*
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%	2.0%			Avg Ann'l Div'd Yield	*2.1%*
239.0	261.5	276.9	319.7	305.1	339.7	389.2	397.7	420.5	564.5	*590*	*615*	Revenues ($mill)	*665*
20.9	22.3	23.5	51.8	37.9	52.8	59.2	38.8	38.7	61.5	*75.0*	*80.0*	Net Profit ($mill)	*110*
41.1%	41.1%	38.7%	32.5%	38.1%	38.8%	36.7%	20.6%	25.3%	12.0%	*21.0%*	*21.5%*	Income Tax Rate	*21.0%*
--	--	--	--	--	--	--	--	2.0%	1.5%	*1.5%*	*1.5%*	AFUDC % to Net Profit	*1.5%*
56.6%	55.0%	51.1%	51.6%	49.8%	50.7%	48.2%	32.7%	59.1%	58.4%	*53.5%*	*51.0%*	Long-Term Debt Ratio	*38.0%*
43.4%	45.0%	48.9%	48.4%	50.2%	49.3%	51.8%	67.3%	40.9%	41.6%	*46.5%*	*49.0%*	Common Equity Ratio	*62.0%*
607.9	610.2	656.2	744.5	764.6	855.0	894.3	1320.7	2173.6	2204.7	*2250*	*2250*	Total Capital ($mill)	*1975*
756.2	831.6	898.7	963.0	1036.8	1146.4	1239.3	1328.8	2206.5	2334.9	*2450*	*2565*	Net Plant ($mill)	*2775*
4.9%	5.0%	5.0%	8.3%	6.3%	7.4%	7.5%	3.9%	2.5%	4.0%	*4.0%*	*4.0%*	Return on Total Cap'l	*6.0%*
7.9%	8.1%	7.3%	14.4%	9.9%	12.5%	12.8%	4.4%	4.3%	6.7%	*7.0%*	*7.5%*	Return on Shr. Equity	*9.0%*
7.9%	8.1%	7.3%	14.4%	9.9%	12.5%	12.8%	4.4%	4.3%	6.7%	*7.0%*	*7.5%*	Return on Com Equity	*9.0%*
3.1%	3.3%	2.6%	10.2%	5.7%	8.6%	8.2%	1.8%	.5%	2.7%	*3.5%*	*3.5%*	Retained to Com Eq	*4.5%*
61%	59%	62%	29%	42%	31%	36%	60%	88%	59%	*53%*	*53%*	All Div'ds to Net Prof	*47%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $1363.8 mill. **Due in 5 Yrs** $22.4 mill.
LT Debt $1287.6 mill. **LT Interest** $50.0 mill.
(LT Interest Coverage: 3.8x)
(58% of Cap'l)

Pension Assets-12/20 $278.1 mill.
Oblig. $386.1 mill.
Pfd Stock None.
Common Stock 28,560,000 shs.

MARKET CAP: $1.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	420.7	17.9	9.3
Accts Receivable	19.2	36.3	58.1
Other	62.8	67.8	59.9
Current Assets	502.7	122.0	127.3
Accts Payable	24.9	34.9	34.2
Debt Due	--	22.3	76.2
Other	139.1	177.4	240.4
Current Liab.	164.0	234.6	350.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	3.0%	2.0%	*5.5%*
"Cash Flow"	5.5%	2.0%	*4.5%*
Earnings	7.0%	-.5%	*13.0%*
Dividends	6.0%	10.0%	*6.0%*
Book Value	8.5%	12.5%	*4.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	75.0	99.1	124.9	98.7	397.7
2019	77.7	103.0	114.0	126.0	420.5
2020	115.8	147.2	165.9	135.6	564.5
2021	*120*	*150*	*175*	*145*	*590*
2022	*125*	*155*	*185*	*150*	*615*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.06	.62	.76	.38	1.82
2019	.21	.47	.33	.34	1.35
2020	.08	.69	.91	.46	2.14
2021	*.20*	*.75*	*.95*	*.65*	*2.55*
2022	*.23*	*.77*	*1.00*	*.70*	*2.70*

Calendar	QUARTERLY DIVIDENDS PAID [BD■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.2175	.2175	.2175	.3875	1.04
2018	.28	.28	.28	.28	1.12
2019	.30	.30	.30	.30	1.20
2020	.32	.32	.32	.32	1.28
2021	.34				

BUSINESS: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 231,000 connections with a total population of roughly one million people in the San Jose area and 16,000 connections that reach about 49,000 residents in the region between San Antonio and Austin, Texas. The company merged with Connecticut Water (10/19) which provides service to approx. 138,000 connections with a total population of 450,000 people. Has 361 employees. Officers and directors own 8.3% of outstanding shares (3/21 proxy). Chairman & CEO: Eric Thornburg. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group posted better-than-expected top- and bottom-line results to close 2020. December-period revenues of $136 million came in about $5 million above our call, while earnings of $0.46 a share exceeded our $0.42 expectation. The overall outperformance was driven primarily by greater customer usage, cumulative water rate increases, slimmer operating expenses due to lower merger-related costs, and a decline in general & administrative expenses.

Noteworthy share-profit expansion is likely in the cards this year and next. Water production costs are apt to rise in conjunction with increased water consumption and a widening customer base, but operating expenses may well trend lower. Not to mention, we think significant merger synergies are likely to develop. All told, we think SJW will earn $2.55 a share this year, and $2.70 a share in 2022.

The coast-to-coast regulated water utility has tapped the equity markets. Specifically, the company recently closed a public offering of over one million shares, netting proceeds of almost $61 million. Management's plan for the raised funds include paying down outstanding obligations, various capital expenditures, and general corporate purposes.

The long-term growth narrative remains largely unaltered. Increased residential and wholesale water consumption, alongside periodic rate hikes, ought to keep revenues moving in the right direction. SJW Group's diverse geographical footprint is advantageous, and should expand further down the road. From an operational standpoint, robust capital spending on infrastructure upgrades ought to boost efficiency, as much of these costs can eventually be passed along to the consumer.

Unranked SJW shares are a bit more appealing for patient accounts following their recent step back in price. At recent levels, capital appreciation potential out to mid-decade is slightly above average, thus presenting a decent entry point for interested subscribers to start building a position. What's more, the dividend yield is now comfortably above the *Value Line* median, and ranks among the top payers in the Water Utilities Industry.

Nicholas P. Patrikis *April 9, 2021*

(A) Diluted earnings. Excludes nonrecurring losses: '05, $1.09; '06, $16.36; '08, $1.22; '10, $0.46. GAAP accounting as of 2013. Next earnings report due early May. Quarterly egs. 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.
(D) Paid special dividend of $0.17 per share on 11/17.
(E) Suspended due to recent OTWS merger.

Company's Financial Strength	B+
Stock's Price Stability	75
Price Growth Persistence	70
Earnings Predictability	45

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YORK WATER NDQ-YORW

RECENT PRICE 48.74 | P/E RATIO 38.1 (Trailing: 38.4 Median: 26.0) | RELATIVE P/E RATIO 1.74 | DIV'D YLD 1.5% | VALUE LINE 1796

TIMELINESS 3 Lowered 1/15/21
SAFETY 3 Lowered 7/17/15
TECHNICAL 3 Lowered 4/2/21
BETA .80 (1.00 = Market)

18-Month Target Price Range

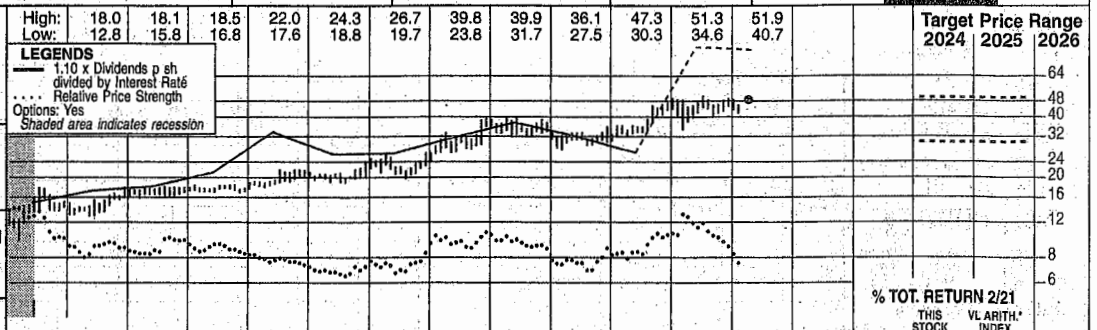
Low-High	Midpoint (% to Mid)
$36-$76	$56 (15%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+5%)	2%
Low	35	(-30%)	-6%

Institutional Decisions

	2Q2020	3Q2020	4Q2020
to Buy	59	46	56
to Sell	48	53	46
Hld's(000)	5479	5302	5341



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	3.70	3.77	3.74	3.96	4.13	*4.20*	*4.35*	Revenues per sh	*5.10*
.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.36	1.45	1.42	1.53	1.58	1.70	1.88	*1.95*	*2.10*	"Cash Flow" per sh	*2.45*
.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	.92	1.01	1.04	1.11	1.27	*1.35*	*1.40*	Earnings per sh [A]	*1.65*
.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	.63	.65	.67	.70	.73	*.78*	*.83*	Div'd Decl'd per sh [B]	*1.00*
1.69	1.85	1.69	2.17	1.18	.83	.74	.94	.76	1.10	1.11	1.03	1.95	--	.16	*.85*	*1.35*	*1.45*	Cap'l Spending per sh	*1.85*
4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.98	8.15	8.51	8.88	9.28	9.75	10.31	10.97	*11.55*	*12.00*	Book Value per sh	*12.90*
10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.81	12.85	12.87	12.94	13.02	13.06	*13.00*	*12.90*	Common Shs Outst'g [C]	*12.80*
26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	23.1	23.5	32.8	34.6	30.3	33.8	35.7	*Bold figures are*		Avg Ann'l P/E Ratio	*25.0*
1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.18	1.72	1.74	1.64	1.80	1.85	*Value Line*		Relative P/E Ratio	*1.40*
2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%	2.6%	2.1%	1.9%	2.1%	1.9%	1.6%	*estimates*		Avg Ann'l Div'd Yield	*2.4%*
						40.6	41.4	42.4	45.9	47.1	47.6	48.6	48.4	51.6	53.9	*54.5*	*56.0*	Revenues ($mill)	*65.0*
						9.1	9.3	9.7	11.5	12.5	11.8	13.0	13.4	14.4	16.6	*17.5*	*18.0*	Net Profit ($mill)	*21.0*
						35.3%	37.6%	37.6%	29.8%	27.5%	31.3%	25.9%	15.7%	13.5%	*18.5%*	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
						1.1%	1.1%	.8%	1.8%	1.6%	1.9%	6.7%	1.7%	2.5%	*1.5%*	*1.5%*	*1.5%*	AFUDC % to Net Profit	*1.5%*
						47.1%	46.0%	45.1%	44.8%	44.4%	42.6%	43.0%	42.5%	41.3%	46.3%	*44.5%*	*42.5%*	Long-Term Debt Ratio	*37.5%*
						52.9%	54.0%	54.9%	55.2%	55.6%	57.4%	57.0%	57.5%	58.7%	53.7%	*55.5%*	*57.5%*	Common Equity Ratio	*62.5%*
						180.2	184.8	188.4	189.4	196.3	198.7	209.5	219.5	228.7	266.9	*270*	*270*	Total Capital ($mill)	*265*
						233.0	240.3	244.2	253.2	261.4	270.9	288.8	299.2	313.2	343.6	*355*	*370*	Net Plant ($mill)	*405*
						6.4%	6.4%	6.5%	7.4%	7.6%	7.2%	7.5%	7.3%	7.4%	7.1%	*7.5%*	*7.5%*	Return on Total Cap'l	*9.0%*
						9.5%	9.3%	9.3%	11.0%	11.5%	10.4%	10.9%	10.6%	10.7%	11.5%	*11.5%*	*11.5%*	Return on Shr. Equity	*13.0%*
						9.5%	9.3%	9.3%	11.0%	11.5%	10.4%	10.9%	10.6%	10.7%	11.5%	*11.5%*	*11.5%*	Return on Com Equity	*13.0%*
						2.5%	2.4%	2.4%	3.9%	4.4%	3.4%	4.0%	3.8%	4.0%	4.9%	*5.0%*	*4.5%*	Retained to Com Eq	*5.0%*
						73%	74%	74%	64%	62%	67%	63%	64%	62%	58%	*58%*	*59%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 12/31/20
Total Debt $123.6 mill. **Due in 5 Yrs** $42.5 mill.
LT Debt $123.6 mill. **LT Interest** $5.5 mill.
(46% of Cap'l)
Pension Assets12/20 $56.3 mill.
Oblig. $54.1 mill.
Pfd Stock None
Common Stock 13,060,817 shs.

MARKET CAP: $625 million (Small Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/20
Cash Assets	--	--	5.0
Accounts Receivable	4.8	4.4	5.2
Inventory (Avg. Cost)	.9	1.0	1.0
Other	3.3	4.0	5.1
Current Assets	9.0	9.4	16.3
Accts Payable	3.0	3.4	6.5
Debt Due	1.0	6.5	--
Other	6.8	5.3	5.5
Current Liab.	10.8	15.2	12.0

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '24-'26
Revenues	3.0%	2.5%	*4.0%*
"Cash Flow"	6.0%	5.5%	*6.5%*
Earnings	6.0%	6.0%	*6.5%*
Dividends	3.0%	4.0%	*6.0%*
Book Value	4.5%	4.0%	*4.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	11.6	12.0	12.7	12.1	48.4
2019	11.8	13.0	13.7	13.1	51.6
2020	12.9	13.3	14.3	13.4	53.9
2021	*13.0*	*13.5*	*14.5*	*13.5*	*54.5*
2022	*13.5*	*13.7*	*15.0*	*13.8*	*56.0*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2018	.20	.26	.29	.29	1.04
2019	.22	.28	.35	.26	1.11
2020	.31	.32	.36	.28	1.27
2021	*.28*	*.35*	*.37*	*.35*	*1.35*
2022	*.30*	*.36*	*.38*	*.36*	*1.40*

Calendar	QUARTERLY DIVIDENDS PAID [B] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.1602	.1602	.1602	.1666	.647
2018	.1666	.1666	.1666	.1733	.673
2019	.1733	.1733	.1733	.1802	.70
2020	.1802	.1802	.1802	.1874	.73
2021	.1874				

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, 2020, the company's average daily availability was 35.6 million gallons and its service territory had an estimated population of 202,000. Has more than 72,600 customers. Residential customers accounted for 66% of 2020 revenues; commercial and industrial (26%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 108 full-time employees at 12/31/20. President/Chief Executive Officer: J.T. Hand. Officers/directors own 1.3% of the common stock (3/21 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

York Water delivered decent top- and bottom-line results to conclude 2020. In the December period, revenues of $13.4 million rose 2%, year over year, while earnings of $0.28 advanced 8%. For the full year, the regulated water utility benefited from rate increases, higher residential water consumption due to more people staying at home, and strong customer base expansion. Capital investment was robust in 2020, as the company spent more than $30 million on infrastructure upgrades such as standpipe replacements and raw water pumping station and wastewater treatment improvements.

Our preliminary 2022 financial projections suggest modest expansion is likely to persist. For the current year, we are maintaining our revenue call of $54.5 million, but are adding a nickel to our earnings forecast, to $1.35 per share. For next year, we anticipate low single-digit top- and bottom-line growth of 3% and 4%, respectively.

The long-term outlook is bright, as well. Water consumption ought to remain stable, and possibly trend higher, as York's customer base expands further. In addition, the company is likely to keep its foot on the gas in terms of capital investments, as its aging infrastructure demands increased attention. This ought to precipitate periodic rate hikes, which help to alleviate some of these expenses.

The stock is trading around recently minted all-time high territory. Underpinning the investment community's notable enthusiasm of late, in our view, is a combination of strong quarterly operating performances and a broad-based flight-to-safety approach amidst an uncertain, albeit improving economic backdrop. York Water is indeed a noncyclical, conservative security, as its water utility operations stand at the core of everyday life, and are largely immune to economic shocks.

We do not recommend starting a position at the recent quotation. On the contrary, committed investors may want to consider locking in some profits following the multiyear price ascent. Moreover, the equity is pegged as a year-ahead market performer, and offers limited price upside over the pull to 2024-2026. The dividend yield leaves much to be desired, too.

Nicholas P. Patrikis *April 9, 2021*

(A) Diluted earnings. Next earnings report due early May.
(B) Dividends historically paid in late February, June, September, and December.
(C) In millions, adjusted for split.

Company's Financial Strength	B+
Stock's Price Stability	75
Price Growth Persistence	65
Earnings Predictability	100

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Pennsylvania American Water Company

York City Sewer Authority's
Wastewater Collection System and Treatment

Appraisal Work Papers
As of April 6, 2021

York City Sewer Authority
Financials 2011 through 2018
And
Budgetary 2020 and 2021

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

Description	2011	2012	2013 Missing	2014	2015	2016
Assets						
Cash and Cash Equivalents	33,687	40,425		28,562	28,240	31,139
Restricted Assets:						
Cash and Cash Equivalents	13,716,597	9,667,943		9,990,352	4,853,192	10,616,208
Investments	2,147,889	1,729,785		867,279	5,929,255	
	15,864,486	**11,397,728**	-	**10,857,631**	**10,782,447**	**10,616,208**
Grants Receivable	139,211	41,041				
Net Investment in direct financing lease	59,636,628	56,909,663		50,806,742	47,363,749	43,694,127
Total Assets	**75,674,012**	**68,388,857**	-	**61,692,935**	**58,174,436**	**54,341,474**
Liabilities						
Accounts Payable	7,269	11,514		11,989	14,125	12,200
Obligation to Construct	1,415,607	41,041				
Liabilities Payable from Restricted Assets:						
Accounts Payable	2,038,792	131,235		4,854		
Funds Held on Behalf of the City of York	6,315,576	6,523,809		6,521,898	6,520,699	6,521,720
Due to other Governments						
Bonds Payable:						
Due within a year	4,011,110	4,015,482		4,138,318	4,139,808	3,611,313
Due in more than a year	56,653,490	53,743,861		47,132,535	43,450,090	40,082,814
Total Liabilities	**70,641,844**	**64,466,842**	-	**57,799,574**	**54,133,722**	**50,228,047**
Net Position						
Restricted For:						
Debt Service	2,811,036	1,884,858		868,813	435,810	1,701
Construction	3,172,330	2,857,796		3,462,068	3,825,938	4,092,788
Unrestricted	(451,198)	(820,669)		(437,520)	(221,034)	18,938
Total Net Position	**5,032,168**	**3,922,015**	-	**3,893,361**	**4,040,714**	**4,113,427**
Operating Revenues:						
Lease Investment Income	3,024,064	2,982,510		2,567,708	2,302,642	2,065,646
Total Operating Revenues	**3,024,064**	**2,982,510**	-	**2,567,708**	**2,302,642**	**2,065,646**
Operating Expenses:						
Interest Expense	3,053,870	2,859,865		2,448,005	2,175,897	1,929,158
Professional Services	81,448	22,725		75,560	27,010	7,534
Miscellaneous Expense	28,157	5,797		11,498	24,916	21,068
Total Operating Expenses	**3,163,475**	**2,888,407**		**2,535,063**	**2,227,823**	**1,957,760**
Operating Income (LOSS)	**(139,411)**	**84,103**		**32,645**	**74,819**	**107,886**
Non Operating Revenues (Expenses):						
Investment Income	105,066	23,574		7,022	1,609	13,717
Miscellaneous Income				63,766	87,015	20,448
Transfers from (to) City of York	2,077,723	(1,217,830)		(78,621)	(16,090)	(69,338)
Total Non-Operating Revenues (Expenses)	**2,182,789**	**(1,194,256)**		**(7,833)**	**72,534**	**(35,173)**
Change in Net Position	**2,043,378**	**(1,110,153)**		**24,812**	**147,353**	**72,713**
Net Position						
Beginning of Year	2,988,790	5,032,168	3,922,015	3,868,549	3,893,361	4,040,714
End of Year	5,032,168	3,922,015	3,868,549	3,893,361	4,040,714	4,113,427
Cash Flows From Operating Activities:						
Cash Paid for Administrative Expenses	(111,837)	(24,277)		(83,472)	(49,790)	(30,527)
Net Cash Provided by (used in) operating activities	**(111,837)**	**(24,277)**	-	**(83,472)**	**(49,790)**	**(30,527)**
Cash Flows From Investing Activities:						
Sales (purchases) of investment securities	9,056,758	418,104		1,430,608	(5,061,976)	5,929,255
Cash Received from Others				63,766	87,015	20,448
Interest Received	179,690	23,668		7,022	1,609	13,717
Net Cash provided by (used in) investing activities	**9,236,448**	**441,772**	-	**1,501,396**	**(4,973,352)**	**5,963,420**
Cash Flows From Capital and Related Financing Activities:						
Proceeds from the issuance of debt	1,500,000					
Capital grants received	2,252,889	98,170				
Transfers from (to) City of York	6,197,246	(1,217,830)		(78,621)	(16,090)	(69,338)
Receipt from City of York to Fund Future Construction Costs						
Payments received on investment in direct financing lease	5,533,344	5,697,274		5,721,830	5,728,346	5,668,951
Proceeds from (to) other municipalities for capital projects	(1,699,021)	(718,103)				
Receipt from Other Governments to Fund Future Construction						
Transfers from (to) restricted investments accounts	(2,077,723)	1,217,830		78,621	16,090	69,338
Capital assets purchased	(18,924,572)	(3,761,510)		(71,763)	(4,854)	
Principal paid on Revenue bonds	(3,921,721)	(4,013,681)		(4,096,843)	(4,138,318)	(4,139,930)

Interest Paid on Revenue Bonds			(1,767,977)			(1,761,561)					(1,746,239)			(1,699,514)			(1,693,999)		
Net Cash provided by (used in) capital and related financing activities	-		(12,907,535)			(4,459,411)		-			(193,015)			(114,340)			(166,978)		
Net Increase (Decrease) in cash and Cash Equivalents			**(3,782,924)**			**(4,041,916)**		-			**1,224,909**			**(5,137,482)**			**5,765,915**		
Cash and Cash Equivalents:																			
Beginning of Year			17,533,208			13,750,284		9,708,368			8,794,005			10,018,914			4,881,432		
End of Year			13,750,284			9,708,368		8,794,005			10,018,914			4,881,432			10,647,347		
Reconciliation of Operating Income (loss) to Net Cash Provided by (Used in) Operating Activities:																			
Operating Income (loss)			(139,411)			84,103		-			32,645			74,819			107,686		
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:																			
Interest Expense			3,053,870			2,869,885		-			2,448,005			2,175,997			1,929,158		
Lease Investment Income			(3,024,064)			(2,982,510)		-			(2,567,708)			(2,302,642)			(2,065,646)		
Changes in assets and liabilities																			
Accounts Payable			(2,232)			4,245					3,586			2,136			(1,925)		
Total Adjustments			27,574			(108,380)					(116,117)			(124,609)			(138,413)		
Net Cash Provided by (used in) operating activities			(111,837)			(24,277)		-			(83,472)			(49,790)			(30,727)		
Non-Cash Capital and Related Financing Activities:																			
Principal accretion of revenue bonds			1,285,893			1,108,324					701,766			476,383			285,159		

	2011			2012			2013			2014			2015			2016			2017	
Supplement City of York Year End December 31, 2017	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund	Total	Intermunicipal Sewer Fund	Sewer Fund
Operating Revenues																				
Charges for Services			-	7,282,379	9,107,307	16,389,686	7,183,789	9,237,785	16,421,574	7,709,555	9,633,858	17,343,413	8,188,904	9,757,531	17,946,435	8,758,998	9,656,842	18,415,840	9,281,126	9,142,361
Rental Income																				
Revenue from other Local Governments																				
Misc Income			-	46,358	747	47,105	9,119	54,193	63,310	9,019	64,327	73,346	26,975	87,649	114,624	18,099	20,448	38,547	36,997	440
Total Revenues	-	-	-	7,328,737	9,108,054	16,436,791	7,192,908	9,291,976	16,484,884	7,718,574	9,698,185	17,416,759	8,215,879	9,845,180	18,061,059	8,777,097	9,677,290	18,454,387	9,318,123	9,142,801
									0.3%			5.7%			3.7%			2.2%		
Operating Expenses																				
Personnel Services																2,432,314	531,457	2,963,771	2,549,005	524,446
Utilities																783,546		783,546	691,322	
Treatment Costs																	3,395,318	3,395,318		3,421,433
Contractual Services																879,077	203,488	1,082,565	947,445	220,283
Professional Services																349,060	179,797	528,857	537,980	527,731
Materials and Supplies																652,040	45,000	697,040	906,899	28,055
Sludge																355,507		355,507	461,745	
Administrative																698,649	805,766	1,504,415	746,325	873,321
Health Insurance Claims																		-		
Insurance Premiums																		-		
Workers' Compensation Insurance																		-		
Depreciation																	3,491,995	3,491,995		3,664,717
Misc																1,901,604	517,802	2,419,406	1,992,708	537,153
Total Operating Expenses																**8,051,797**	**9,170,623**	**17,222,420**	**8,835,429**	**9,817,539**
Operating Income (loss)																**725,300**	**506,667**	**1,231,967**	**482,694**	**(674,738)**
Nonoperating Revenue (expenses)																		5,231,411		
Grants																				
Investment Income																15,376	1,046,178		16,840	1,160,219
Contributions																				
Springettsbury Capacity Sale																	831,000			831,000
Interest Expense																	(2,018,822)			(2,198,405)
Total Nonoperating Revenue (expenses)																**15,376**	**(141,644)**		**16,840**	**(207,186)**
Change in Net Position before transfers																**740,676**	**365,023**		**499,534**	**(881,924)**
Transfers In																	613,430			357,784
Transfers Out																(613,430)	(3,177,065)		(357,784)	(2,846,902)
Contributed Capital																				
Change in Net Position																**127,246**	**(2,198,612)**		**141,750**	**(3,371,042)**
Net Position Beginning of year																1,873,904	71,836,928		2,001,150	
Net Position End of Year																**2,001,150**	**69,638,316**		**2,142,900**	**(3,371,042)**

Appendix A-5-1 (AUS)

	2017	2018
	3,140	26,201
	9,778,251	12,172,674
	9,778,251	12,172,674
	38,362,814	34,649,981
	48,144,205	46,850,856
	17,787	1,911
	67,960	36,399
	5,972,675	6,229,920
		2,159,930
	3,712,833	3,819,368
	34,649,981	30,830,613
	44,421,236	43,078,141
	3,536	2,909
	3,718,380	3,743,513
	1,053	26,291
	3,722,969	3,772,713
	1,878,445	1,689,976
	1,878,445	1,689,976
	1,762,074	1,458,352
	22,869	25,027
	15,850	18,191
	1,800,793	1,501,570
	77,652	188,406
	42,468	132,754
		50
	(510,578)	(271,466)
	(468,110)	(138,662)
	(390,458)	49,744
	4,113,427	3,722,969
	3,722,969	3,772,713
	(33,132)	(59,094)
	(33,132)	(59,094)
		50
	42,468	132,754
	42,468	132,804
	(72,127)	(15,044)
		176,790
	4,936,546	5,483,264
		2,369,514
	72,127	15,044
	(438,451)	(496,094)
	(3,611,313)	(3,712,833)

Appendix A-5-1 (AUS)

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2012

Maillie

Expertise Beyond The Numbers

Certified Public Accountants and Business Consultants

CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2012

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets						
Current assets:						
Cash and cash equivalents	$ 1,727,770	$ 1,216,302	$ -	$ -	$ 2,944,072	$ 1,606,603
Receivables:						
Lease rentals, current	-	1,558,349	-	-	1,558,349	-
Accounts receivable (less allowance for doubtful accounts of $6,201,798)	180,896	2,171,691	44,691	61,908	2,459,186	123,106
Inventory	-	-	8,283	-	8,283	-
Prepaid expenses	-	-	35,986	-	35,986	28,203
Due from other governments	1,898,227	41,041	-	-	1,939,268	-
Due from other funds	-	1,139,805	-	-	1,139,805	2,337,644
Total current assets	3,806,893	6,127,188	88,960	61,908	10,084,949	4,095,556
Restricted assets:						
Cash and cash equivalents	-	9,667,943	-	1,723,399	11,391,342	457,608
Investments	-	1,729,785	-	-	1,729,785	-
Total restricted assets	-	11,397,728	-	1,723,399	13,121,127	457,608
Noncurrent assets:						
Lease rentals receivable, long-term	-	28,894,144	-	-	28,894,144	-
Capital assets, net of accumulated depreciation	-	88,532,427	3,779,995	12,452	92,324,874	-
Debt issuance costs (net of accumulated amortization of $194,249)	-	805,104	-	-	805,104	-
Total noncurrent assets	-	118,231,675	3,779,995	12,452	122,024,122	-
Total assets	3,806,893	135,756,591	3,868,955	1,797,759	145,230,198	4,553,164
Liabilities						
Current liabilities:						
Accounts payable and accrued expenses	393,199	193,197	147,671	1,718	735,785	1,034,728
Accrued wages payable	41,856	10,006	6,731	2,233	60,826	14,309
Accrued interest	-	-	39,163	-	39,163	-
Due to other funds	165,079	-	580,139	179,481	924,699	839,529
Unearned revenue	-	-	94,700	-	94,700	-
Total current liabilities	600,134	203,203	868,404	183,432	1,855,173	1,888,566
Current liabilities payable from restricted assets:						
Current portion of capitalized lease obligations	-	111,267	16,320	-	127,587	-
Current portion of bonds and notes payable	-	4,015,382	395,000	-	4,410,382	160,633
Total current liabilities payable from restricted resources	-	4,126,649	411,320	-	4,537,969	160,633
Noncurrent liabilities:						
Accrued compensated absences	81,335	30,233	-	3,962	115,530	70,424
Other post-employment liability	273,362	59,719	-	18,387	351,468	126,580
Capitalized lease obligations	-	289,250	209,676	-	498,926	-
Bonds and notes outstanding	-	53,408,995	4,040,000	-	57,448,995	352,632
Total noncurrent liabilities	354,697	53,788,197	4,249,676	22,349	58,414,919	549,636
Total liabilities	954,831	58,118,049	5,529,400	205,781	64,808,061	2,598,835
Net Position						
Net investment in capital assets	-	65,619,927	(881,001)	12,452	64,751,378	-
Restricted:						
Debt service	-	7,652,737	-	-	7,652,737	-
Construction	2,852,062	-	-	1,723,399	4,575,461	-
Workers' compensation	-	-	-	-	-	457,608
Unrestricted	-	4,365,878	(779,444)	(143,873)	3,442,561	1,496,721
Total net position	$ 2,852,062	$ 77,638,542	$ (1,660,445)	$ 1,591,978	$ 80,422,137	$ 1,954,329
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					2,958,889	
Net position of business-type activities					$ 83,381,026	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS

YEAR ENDED DECEMBER 31, 2012

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:						
Charges for services	$ 7,282,379	$ 9,107,307	$ 641,410	$ 60,349	$ 17,091,445	$ 13,536,367
Rental income	-	-	432,369	-	432,369	-
Revenue from other local governments	-	-	-	93,226	93,226	-
Miscellaneous income	46,358	747	5,669	3,333	56,107	-
Total operating revenues	7,328,737	9,108,054	1,079,448	156,908	17,673,147	13,536,367
Operating expenses;						
Personnel services	1,971,810	458,177	348,641	99,323	2,877,951	1,498,702
Utilities	809,717	-	175,419	-	985,136	-
Treatment costs	-	2,315,184	-	-	2,315,184	-
Contractual services	870,893	167,279	28,138	-	1,066,310	-
Professional services	144,343	171,943	57,600	8,145	382,031	457,720
Materials and supplies	411,214	56,725	184,226	14,210	666,375	128,182
Sludge	512,759	-	-	-	512,759	-
Administrative	615,237	723,016	105,125	32,503	1,475,881	325,115
Health insurance claims	-	-	-	-	-	7,991,026
Insurance premiums	-	-	24,755	-	24,755	874,683
Workers' compensation insurance	-	-	-	-	-	702,321
Depreciation	-	3,569,474	274,963	-	3,844,437	-
Miscellaneous	1,453,884	304,912	485	4,843	1,764,124	716,503
Total operating expenses	6,789,857	7,766,710	1,199,352	159,024	15,914,943	12,694,252
Operating income (loss)	538,880	1,341,344	(119,904)	(2,116)	1,758,204	842,115
Nonoperating revenue (expenses):						
Grants	-	-	-	56,667	56,667	-
Investment income	32	1,374,750	3	-	1,374,785	274
Contributions	-	-	-	6,712	6,712	-
Springettsbury capacity sale	-	831,000	-	-	831,000	-
Interest expense	-	(2,269,743)	(251,767)	-	(2,521,510)	(32,614)
Total nonoperating revenue (expenses)	32	(63,993)	(251,764)	63,379	(252,346)	(32,340)
Change in net position before transfers	538,912	1,277,351	(371,668)	61,263	1,505,858	809,775
Transfers in	-	363,207	623,765	-	986,972	-
Transfers out	(363,207)	(2,598,516)	-	-	(2,961,723)	-
Change in net position	175,705	(957,958)	252,097	61,263	(468,893)	809,775
Net position - beginning of year	2,676,357	78,596,500	(1,912,542)	1,530,715		1,144,554
Net position - end of year	$ 2,852,062	$ 77,638,542	$ (1,660,445)	$ 1,591,978		$ 1,954,329
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					548,588	
Change in net position of business-type activities					$ 79,695	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2013

Maillie
Expertise Beyond The Numbers
Certified Public Accountants and Business Consultants

CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2013

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets						
Current assets:						
Cash and cash equivalents	$ 2,198,055	$ 680,642	$ -	$ -	$ 2,878,697	$ 1,733,273
Receivables:						
Lease rentals, current	-	1,707,324	-	-	1,707,324	-
Accounts receivable (less allowance for doubtful accounts of $6,497,538)	338,554	2,283,504	50,254	43,190	2,715,502	115,083
Inventory	-	-	9,780	-	9,780	-
Prepaid expenses	-	-	30,790	-	30,790	25,708
Due from other governments	1,629,788	-	-	-	1,629,788	-
Due from other funds	-	2,040,320	-	-	2,040,320	3,394,147
Total current assets	4,166,397	6,711,790	90,824	43,190	11,012,201	5,268,211
Restricted assets:						
Cash and cash equivalents	-	8,729,526	-	1,828,353	10,557,879	456,226
Investments	-	2,297,887	-	-	2,297,887	-
Total restricted assets	-	11,027,413	-	1,828,353	12,855,766	456,226
Noncurrent assets:						
Lease rentals receivable, long-term	-	27,186,820	-	-	27,186,820	-
Capital assets, net of accumulated depreciation	-	84,994,644	3,511,205	12,452	88,518,301	134,158
Prepaid debt insurance	-	570,313	-	-	570,313	-
Total noncurrent assets	-	112,751,777	3,511,205	12,452	116,275,434	134,158
Total assets	4,166,397	130,490,980	3,602,029	1,883,995	140,143,401	5,858,595
Liabilities						
Current liabilities:						
Accounts payable and accrued expenses	376,786	93,964	155,155	9,204	635,109	1,771,645
Accrued wages payable	58,335	12,257	8,797	2,656	82,045	18,906
Accrued interest	-	-	36,036	-	36,036	-
Due to other funds	428,393	-	652,727	211,288	1,292,408	525,301
Unearned revenue	-	-	88,287	-	88,287	-
Total current liabilities	863,514	106,221	941,002	223,148	2,133,885	2,315,852
Current liabilities payable from restricted assets:						
Current portion of capitalized lease obligations	-	110,466	17,055	-	127,521	34,582
Current portion of bonds and notes payable	-	4,096,843	415,000	-	4,511,843	170,901
Total current liabilities payable from restricted resources	-	4,207,309	432,055	-	4,639,364	205,483
Noncurrent liabilities:						
Accrued compensated absences	73,653	31,075	-	5,097	109,825	80,239
Other post-employment liability	303,199	67,742	-	20,002	390,943	137,923
Capitalized lease obligations	-	178,785	192,621	-	371,406	74,444
Bonds and notes outstanding	-	50,260,339	3,625,000	-	53,885,339	181,731
Total noncurrent liabilities	376,852	50,537,941	3,817,621	25,099	54,757,513	474,337
Total liabilities	1,240,366	54,851,471	5,190,678	248,247	61,530,762	2,995,672
Net Position						
Net investment in capital assets	-	63,741,232	(738,471)	12,452	63,015,213	-
Restricted:						
Debt service	-	7,063,618	-	-	7,063,618	-
Construction	2,926,031	-	-	1,828,353	4,754,384	-
Workers' compensation	-	-	-	-	-	456,226
Unrestricted	-	4,834,659	(850,178)	(205,057)	3,779,424	2,406,697
Total net position	$ 2,926,031	$ 75,639,509	$ (1,588,649)	$ 1,635,748	$ 78,612,639	$ 2,862,923
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					3,326,738	
Net position of business-type activities					$ 81,939,377	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN
NET POSITION - PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2013

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:						
Charges for services	$ 7,183,789	$ 9,237,785	$ 588,722	$ 59,563	$ 17,069,859	$ 13,056,424
Rental income	-	-	463,442	2,790	466,232	-
Revenue from other local governments	-	-	-	85,227	85,227	-
Miscellaneous income	9,119	54,191	3,266	-	66,576	-
Total operating revenues	7,192,908	9,291,976	1,055,430	147,580	17,687,894	13,056,424
Operating expenses;						
Personnel services	2,030,472	458,049	346,495	101,712	2,936,728	1,481,328
Utilities	671,387	-	175,860	-	847,247	-
Treatment costs	-	2,020,578	-	-	2,020,578	-
Contractual services	852,492	157,511	29,181	-	1,039,184	-
Professional services	129,789	215,178	57,600	7,706	410,273	679,069
Materials and supplies	381,394	56,844	198,147	13,263	649,648	262,321
Sludge	490,021	-	-	-	490,021	-
Administrative	653,541	774,594	141,171	34,927	1,604,233	347,766
Health insurance claims	-	-	-	-	-	6,926,351
Insurance premiums	-	-	30,265	-	30,265	965,241
Workers' compensation insurance	-	-	-	-	-	670,224
Depreciation	-	3,888,951	268,790	-	4,157,741	14,907
Miscellaneous	1,498,746	345,092	213	4,857	1,848,908	784,035
Total operating expenses	6,707,842	7,916,797	1,247,722	162,465	16,034,826	12,131,242
Operating income (loss)	485,066	1,375,179	(192,292)	(14,885)	1,653,068	925,182
Nonoperating revenue (expenses):						
Grants	-	-	-	54,000	54,000	-
Investment income	1,699	1,414,953	99	1,483	1,418,234	5,758
Contributions	-	-	-	3,172	3,172	-
Springettsbury capacity sale	-	831,000	-	-	831,000	-
Interest expense	-	(2,955,735)	(232,695)	-	(3,188,430)	(22,346)
Total nonoperating revenue (expenses)	1,699	(709,782)	(232,596)	58,655	(882,024)	(16,588)
Change in net position before transfers	486,765	665,397	(424,888)	43,770	771,044	908,594
Transfers in	-	412,796	496,684	-	909,480	-
Transfers out	(412,796)	(3,077,226)	-	-	(3,490,022)	-
Change in net position	73,969	(1,999,033)	71,796	43,770	(1,809,498)	908,594
Net position - beginning of year	2,852,062	77,638,542	(1,660,445)	1,591,978		1,954,329
Net position - end of year	$ 2,926,031	$ 75,639,509	$ (1,588,649)	$ 1,635,748		$ 2,862,923
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					367,849	
Change in net position of business-type activities					$ (1,441,649)	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2014

Maillie®

CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2014

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets						
Current assets:						
Cash and cash equivalents	$ 3,252,164	$ 1,514,278	$ -	$ -	$ 4,766,442	$ 2,749,434
Receivables:						
Lease rentals, current	-	1,842,346	-	-	1,842,346	-
Accounts receivable (less allowance for doubtful accounts of $5,767,443)	202,520	2,842,965	9,013	23,243	3,077,741	139,892
Inventory	-	-	9,065	-	9,065	-
Prepaid expenses	-	-	19,527	-	19,527	25,377
Due from other governments	45,815	-	-	-	45,815	150,000
Due from other funds	441,586	1,076,844	-	-	1,518,430	2,027,612
Total current assets	3,942,085	7,276,433	37,605	23,243	11,279,366	5,092,315
Restricted assets:						
Cash and cash equivalents	-	9,990,352	-	1,973,262	11,963,614	526,412
Investments	-	867,279	-	-	867,279	-
Total restricted assets	-	10,857,631	-	1,973,262	12,830,893	526,412
Noncurrent assets:						
Lease rentals receivable, long-term	-	25,344,474	-	-	25,344,474	-
Capital assets, net of accumulated depreciation	-	81,503,523	3,275,436	12,452	84,791,411	104,345
Prepaid debt insurance	-	519,385	-	-	519,385	-
Total noncurrent assets	-	107,367,382	3,275,436	12,452	110,655,270	104,345
Total assets	3,942,085	125,501,446	3,313,041	2,008,957	134,765,529	5,723,072
Liabilities						
Current liabilities:						
Accounts payable and accrued expenses	447,532	28,500	115,187	7,678	598,897	1,064,991
Accrued wages payable	64,400	13,137	-	2,747	80,284	22,442
Accrued interest	-	-	32,232	-	32,232	-
Due to other funds	-	441,586	729,466	252,349	1,423,401	-
Unearned revenue	-	-	50,714	-	50,714	-
Total current liabilities	511,932	483,223	927,599	262,774	2,185,528	1,087,433
Current liabilities payable from restricted assets:						
Current portion of capitalized lease obligations	-	139,538	17,825	-	157,363	36,313
Current portion of bonds and notes payable	-	4,138,318	440,000	-	4,578,318	181,731
Total current liabilities payable from restricted resources	-	4,277,856	457,825	-	4,735,681	218,044
Noncurrent liabilities:						
Accrued compensated absences	126,298	8,435	-	1,389	136,122	40,926
Other post-employment liability	303,946	71,950	-	21,222	397,118	155,271
Capitalized lease obligations	-	163,571	174,796	-	338,367	38,131
Bonds and notes outstanding	-	46,859,925	3,185,000	-	50,044,925	-
Total noncurrent liabilities	430,244	47,103,881	3,359,796	22,611	50,916,532	234,328
Total liabilities	942,176	51,864,960	4,745,220	285,385	57,837,741	1,539,805
Net Position						
Net investment in capital assets	-	62,128,191	(542,185)	12,452	61,598,458	-
Restricted:						
Debt service	-	6,632,964	-	-	6,632,964	-
Construction	2,999,909	-	-	1,973,262	4,973,171	-
Workers' compensation	-	-	-	-	-	526,412
Unrestricted	-	4,875,331	(889,994)	(262,142)	3,723,195	3,656,855
Total net position	$ 2,999,909	$ 73,636,486	$ (1,432,179)	$ 1,723,572	$ 76,927,788	$ 4,183,267
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					3,796,834	
Net position of business-type activities					$ 80,724,622	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS

YEAR ENDED DECEMBER 31, 2014

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:						
Charges for services	$ 7,709,555	$ 9,633,858	$ 590,985	$ 59,867	$ 17,994,265	$ 13,815,519
Rental income	-	-	434,821	5,753	440,574	-
Revenue from other local governments	-	-	-	135,912	135,912	-
Miscellaneous income	9,019	64,327	13,343	-	86,689	-
Total operating revenues	7,718,574	9,698,185	1,039,149	201,532	18,657,440	13,815,519
Operating expenses;						
Personnel services	2,050,660	445,339	320,919	98,592	2,915,510	1,581,548
Utilities	775,544	-	200,955	-	976,499	-
Treatment costs	-	2,630,520	-	-	2,630,520	-
Contractual services	791,101	179,465	34,752	16,867	1,022,185	-
Professional services	223,167	141,205	60,392	7,880	432,644	551,124
Materials and supplies	426,079	83,467	236,752	14,192	760,490	642,693
Sludge	303,039	-	-	-	303,039	-
Administrative	729,908	849,716	72,078	36,544	1,688,246	368,573
Health insurance claims	-	-	-	-	-	6,971,929
Insurance premiums	-	-	31,515	-	31,515	1,068,315
Workers' compensation insurance	-	-	-	-	-	243,486
Depreciation	-	4,165,315	239,264	-	4,404,579	29,813
Miscellaneous	1,694,564	374,654	4,508	6,373	2,080,099	1,178,431
Total operating expenses	6,994,062	8,869,681	1,201,135	180,448	17,245,326	12,635,912
Operating income (loss)	724,512	828,504	(161,986)	21,084	1,412,114	1,179,607
Nonoperating revenue (expenses):						
Grants	-	-	-	54,000	54,000	150,000
Investment income	8,621	1,298,897	120	2,006	1,309,644	2,253
Contributions	-	-	-	10,734	10,734	-
Springettsbury capacity sale	-	831,000	-	-	831,000	-
Interest expense	-	(2,544,361)	(210,162)	-	(2,754,523)	(11,516)
Total nonoperating revenue (expenses)	8,621	(414,464)	(210,042)	66,740	(549,145)	140,737
Change in net position before transfers	733,133	414,040	(372,028)	87,824	862,969	1,320,344
Transfers in	-	659,255	528,498	-	1,187,753	-
Transfers out	(659,255)	(3,076,318)	-	-	(3,735,573)	-
Change in net position	73,878	(2,003,023)	156,470	87,824	(1,684,851)	1,320,344
Net position - beginning of year	2,926,031	75,639,509	(1,588,649)	1,635,748		2,862,923
Net position - end of year	$ 2,999,909	$ 73,636,486	$ (1,432,179)	$ 1,723,572		$ 4,183,267
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					470,096	
Change in net position of business-type activities					$ (1,214,755)	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2015

Maillie®

CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2015

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets						
Current assets:						
Cash and cash equivalents	$ 3,616,186	$ 853,780	$ -	$ -	$ 4,469,966	$ 4,147,749
Receivables:						
Lease rentals, current	-	1,963,681	-	-	1,963,681	-
Accounts receivable (less allowance for doubtful accounts of $5,363,900)	152,914	2,618,054	58,374	18,264	2,847,606	165,737
Inventory	-	-	7,118	-	7,118	-
Prepaid expenses	-	-	19,452	-	19,452	27,753
Due from other funds	382,468	2,211,689	-	-	2,594,157	1,605,556
Total current assets	4,151,568	7,647,204	84,944	18,264	11,901,980	5,946,795
Restricted assets:						
Cash and cash equivalents	-	4,853,192	-	2,056,928	6,910,120	525,003
Investments	-	5,929,255	-	-	5,929,255	-
Total restricted assets	-	10,782,447	-	2,056,928	12,839,375	525,003
Noncurrent assets:						
Lease rentals receivable, long-term	-	23,380,793	-	-	23,380,793	-
Capital assets, net of accumulated depreciation	-	77,954,445	3,151,811	5,511	81,111,767	74,532
Prepaid debt insurance	-	468,457	-	-	468,457	-
Total noncurrent assets	-	101,803,695	3,151,811	5,511	104,961,017	74,532
Total assets	4,151,568	120,233,346	3,236,755	2,080,703	129,702,372	6,546,330
Deferred Outflows of Resources						
Deferred outflows of resources for pension	589,214	152,055	-	19,007	760,276	228,083
Liabilities						
Current liabilities:						
Accounts payable and accrued expenses	345,236	52,386	140,016	3,303	540,941	671,230
Accrued wages payable	68,539	12,180	-	1,205	81,924	23,603
Accrued interest	-	-	28,198	-	28,198	-
Due to other funds	-	382,468	914,697	224,154	1,521,319	-
Due to other governments	153,914	-	-	-	153,914	-
Unearned revenue	-	-	87,412	-	87,412	-
Total current liabilities	567,689	447,034	1,170,323	228,662	2,413,708	694,833
Current liabilities payable from restricted assets:						
Current portion of capitalized lease obligations	-	99,448	18,629	-	118,077	38,131
Current portion of bonds and notes payable	-	4,139,808	465,000	-	4,604,808	-
Total current liabilities payable from restricted resources	-	4,239,256	483,629	-	4,722,885	38,131
Noncurrent liabilities:						
Accrued compensated absences	92,991	740	-	1,039	94,770	45,065
Other post-employment liability	310,277	75,564	-	21,888	407,729	166,705
Capitalized lease obligations	-	64,123	156,167	-	220,290	-
Bonds and notes outstanding	-	43,232,486	2,720,000	-	45,952,486	-
Net pension liability	1,786,004	460,904	-	57,613	2,304,521	691,357
Total noncurrent liabilities	2,189,272	43,833,817	2,876,167	80,540	48,979,796	903,127
Total liabilities	2,756,961	48,520,107	4,530,119	309,202	56,116,389	1,636,091
Deferred Inflows of Resources						
Deferred inflows of resources for pension	109,917	28,366	-	3,546	141,829	42,549
Net Position						
Net investment in capital assets	-	60,815,894	(207,985)	5,511	60,613,420	36,401
Restricted:						
Debt service	-	6,198,064	-	-	6,198,064	-
Construction	1,873,904	-	-	2,056,928	3,930,832	-
Workers' compensation	-	-	-	-	-	525,003
Unrestricted	-	4,822,970	(1,085,379)	(275,477)	3,462,114	4,534,369
Total net position	$ 1,873,904	$ 71,836,928	$ (1,293,364)	$ 1,786,962	$ 74,204,430	$ 5,095,773
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					4,232,958	
Net position of business-type activities					$ 78,437,388	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2015

	Business-type Activities - Enterprise Funds					
	Intermunicipal Sewer Fund	Sewer Fund	Ice Rink Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:						
Charges for services	$ 8,188,904	$ 9,757,531	$ 534,205	$ 60,628	$ 18,541,268	$ 14,258,881
Rental income	-	-	451,723	-	451,723	-
Revenue from other local governments	-	-	-	78,349	78,349	-
Miscellaneous income	26,975	87,649	6,373	-	120,997	-
Total operating revenues	8,215,879	9,845,180	992,301	138,977	19,192,337	14,258,881
Operating expenses;						
Personnel services	2,090,171	485,527	301,789	61,855	2,939,342	2,196,685
Utilities	800,565	-	213,697	-	1,014,262	-
Treatment costs	-	2,554,785	-	-	2,554,785	-
Contractual services	762,030	150,918	30,229	-	943,177	-
Professional services	319,491	88,497	65,000	4,495	477,483	545,123
Materials and supplies	520,491	31,527	203,403	14,959	770,380	600,414
Sludge	481,999	-	-	-	481,999	-
Administrative	680,054	769,887	160,150	34,397	1,644,488	392,761
Health insurance claims	-	-	-	-	-	6,680,500
Insurance premiums	-	-	43,566	-	43,566	1,090,698
Workers' compensation insurance	-	-	-	-	-	475,935
Depreciation	-	4,093,521	234,634	6,941	4,335,096	29,813
Miscellaneous	1,727,074	472,890	-	8,379	2,208,343	778,949
Total operating expenses	7,381,875	8,647,552	1,252,468	131,026	17,412,921	12,790,878
Operating income (loss)	834,004	1,197,628	(260,167)	7,951	1,779,416	1,468,003
Nonoperating revenue (expenses):						
Grants	-	-	-	60,000	60,000	-
Investment income	4,289	1,153,657	69	2,221	1,160,236	422
Contributions	-	-	-	12,975	12,975	-
Springettsbury capacity sale	-	831,000	-	-	831,000	-
Interest expense	-	(2,269,549)	(185,649)	-	(2,455,198)	(3,726)
Total nonoperating revenue (expenses)	4,289	(284,892)	(185,580)	75,196	(390,987)	(3,304)
Change in net position before transfers	838,293	912,736	(445,747)	83,147	1,388,429	1,464,699
Transfers in	-	692,800	584,562	21,259	1,298,621	-
Transfers out	(692,800)	(3,076,965)	-	-	(3,769,765)	(60,000)
Change in net position	145,493	(1,471,429)	138,815	104,406	(1,082,715)	1,404,699
Net position - beginning of year - restated	1,728,411	73,308,357	(1,432,179)	1,682,556		3,691,074
Net position - end of year	$ 1,873,904	$ 71,836,928	$ (1,293,364)	$ 1,786,962		$ 5,095,773
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds					436,124	
Change in net position of business-type activities					$ (646,591)	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2016

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CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2016

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets					
Current assets:					
Cash and cash equivalents	$ 3,864,279	$ 2,054,219	$ -	$ 5,918,498	$ 5,521,867
Receivables:					
Lease rentals, current	-	1,932,414	-	1,932,414	-
Accounts receivable (less allowance for doubtful accounts of $4,728,880)	143,164	2,363,272	136,460	2,642,896	105,575
Prepaid expenses	-	-	34,305	34,305	26,608
Due from other funds	1,042,486	674,842	-	1,717,328	1,286,175
Total current assets	5,049,929	7,024,747	170,765	12,245,441	6,940,225
Restricted assets:					
Cash and cash equivalents	-	10,616,208	2,143,934	12,760,142	523,594
Total restricted assets	-	10,616,208	2,143,934	12,760,142	523,594
Noncurrent assets:					
Lease rentals receivable, long-term	-	21,448,379	-	21,448,379	-
Capital assets, net of accumulated depreciation	-	75,352,741	2,914,647	78,267,388	44,719
Prepaid debt insurance	-	417,529	-	417,529	-
Total noncurrent assets	-	97,218,649	2,914,647	100,133,296	44,719
Total assets	5,049,929	114,859,604	5,229,346	125,138,879	7,508,538
Deferred Outflows of Resources					
Deferred outflows of resources for pension	499,209	128,828	16,104	644,141	196,146
Liabilities					
Current liabilities:					
Accounts payable and accrued expenses	351,056	140,118	139,913	631,087	482,902
Accrued wages payable	83,421	18,932	1,641	103,994	32,999
Accrued interest	-	-	23,936	23,936	-
Due to other funds	-	1,042,486	1,180,073	2,222,559	-
Due to other governments	775,306	-	-	775,306	-
Unearned revenue	-	-	72,202	72,202	-
Total current liabilities	1,209,783	1,201,536	1,417,765	3,829,084	515,901
Current liabilities payable from restricted assets:					
Current portion of capitalized lease obligations	-	31,554	19,469	51,023	-
Current portion of bonds and notes payable	-	3,611,313	490,000	4,101,313	-
Total current liabilities payable from restricted assets	-	3,642,867	509,469	4,152,336	-
Noncurrent liabilities:					
Accrued compensated absences	71,294	670	1,184	73,148	89,282
Other post-employment liability	314,612	76,691	22,928	414,231	178,614
Capitalized lease obligations	-	32,569	136,699	169,268	-
Bonds and notes outstanding	-	39,891,963	2,230,000	42,121,963	-
Net pension liability	1,860,592	480,153	60,019	2,400,764	717,824
Total noncurrent liabilities	2,246,498	40,482,046	2,450,830	45,179,374	985,720
Total liabilities	3,456,281	45,326,449	4,378,064	53,160,794	1,501,621
Deferred Inflows of Resources					
Deferred inflows of resources for pension	91,707	23,667	2,959	118,333	36,087
Net Position					
Net investment in capital assets	-	60,433,750	38,479	60,472,229	44,719
Restricted:					
Debt service	-	5,766,123	-	5,766,123	-
Construction	2,001,150	-	2,143,934	4,145,084	-
Workers' compensation	-	-	-	-	523,594
Unrestricted	-	3,438,443	(1,317,986)	2,120,457	5,598,663
Total net position	$ 2,001,150	$ 69,638,316	$ 864,427	72,503,893	$ 6,166,976
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				4,764,457	
Net position of business-type activities				$ 77,268,350	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2016

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:					
Charges for services	$ 8,758,998	$ 9,656,842	$ 592,597	$ 19,008,437	$ 15,323,835
Rental income	-	-	410,217	410,217	-
Revenue from other local governments	-	-	79,429	79,429	-
Miscellaneous income	18,099	20,448	7,240	45,787	-
Total operating revenues	8,777,097	9,677,290	1,089,483	19,543,870	15,323,835
Operating expenses;					
Personnel services 1	2,432,314	531,457	335,549	3,299,320	2,063,946
Utilities 2	783,546	-	217,962	1,001,508	-
Treatment costs 3	-	3,395,318	-	3,395,318	-
Contractual services 4	879,077	203,488	29,034	1,111,599	-
Professional services 5	349,060	179,797	50,842	579,699	877,764
Materials and supplies 6	652,040	45,000	139,755	836,795	315,100
Sludge 7	355,507	-	-	355,507	-
Administrative 8	698,649	805,766	210,130	1,714,545	364,176
Health insurance claims 9	-	-	-	-	7,966,448
Insurance premiums 10	-	-	31,555	31,555	1,054,528
Workers' compensation insurance 11	-	-	-	-	623,107
Depreciation 12		3,491,995	242,675	3,734,670	29,813
Miscellaneous 13	1,901,604	517,802	13,887	2,433,293	898,683
Total operating expenses	8,051,797	9,170,623	1,271,389	18,493,809	14,193,565
Operating income (loss)	725,300	506,667	(181,906)	1,050,061	1,130,270
Nonoperating revenue (expenses):					
Grants	-	-	60,000	60,000	-
Investment income	15,376	1,046,178	7,846	1,069,400	2,841
Contributions	-	-	23,545	23,545	-
Springettsbury capacity sale	-	831,000	-	831,000	-
Interest expense	-	(2,018,822)	(160,047)	(2,178,869)	(1,908)
Total nonoperating revenue (expenses)	15,376	(141,644)	(68,656)	(194,924)	933
Change in net position before transfers	740,676	365,023	(250,562)	855,137	1,131,203
Transfers in	-	613,430	621,391	1,234,821	-
Transfers out	(613,430)	(3,177,065)	-	(3,790,495)	(60,000)
Change in net position	127,246	(2,198,612)	370,829	(1,700,537)	1,071,203
Net position - beginning of year	1,873,904	71,836,928	493,598		5,095,773
Net position - end of year	$ 2,001,150	$ 69,638,316	$ 864,427		$ 6,166,976
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				531,499	
Change in net position of business-type activities				$ (1,169,038)	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA

ANNUAL FINANCIAL REPORT

Year Ended December 31, 2017

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CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2017

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets					
Current assets:					
Cash and cash equivalents	$ 4,317,069	$ 282,003	$ -	$ 4,599,072	$ 6,598,039
Receivables:					
Lease rentals, current	-	1,986,737	-	1,986,737	-
Accounts receivable (less allowance for doubtful accounts of $4,519,637)	24,489	3,352,098	170,827	3,547,414	156,196
Prepaid expenses	-	-	-	-	25,263
Due from other funds	1,487,827	853,972	-	2,341,799	1,486,703
Total current assets	5,829,385	6,474,810	170,827	12,475,022	8,266,201
Restricted assets:					
Cash and cash equivalents	-	9,778,251	2,240,004	12,018,255	463,363
Total restricted assets	-	9,778,251	2,240,004	12,018,255	463,363
Noncurrent assets:					
Lease rentals receivable, long-term		18,541,270	-	18,541,270	-
Capital assets, net of accumulated depreciation		72,707,948	2,997,205	75,705,153	14,906
Prepaid debt insurance	-	35,668	-	35,668	-
Total noncurrent assets	-	91,284,886	2,997,205	94,282,091	14,906
Total assets	5,829,385	107,537,947	5,408,036	118,775,368	8,744,470
Deferred Outflows of Resources					
Deferred outflows of resources for pension	303,126	83,338	9,779	396,243	113,153
Deferred charges on refunding	-	3,222,667	-	3,222,667	-
Total deferred outflows of resources	303,126	3,306,005	9,779	3,618,910	113,153
Liabilities					
Current liabilities:					
Accounts payable and accrued expenses	344,782	275,802	82,797	703,381	1,115,776
Accrued wages payable	94,320	20,279	1,641	116,240	25,736
Accrued interest	-	-	16,014	16,014	-
Due to other funds	746,325	1,487,827	1,288,641	3,522,793	-
Due to other governments	546,234	-	-	546,234	-
Unearned revenue	-	180,444	220,180	400,624	-
Total current liabilities	1,731,661	1,964,352	1,609,273	5,305,286	1,141,512
Current liabilities payable from restricted assets:					
Current portion of capitalized lease obligations	-	32,569	40,012	72,581	-
Current portion of bonds and notes payable	-	3,712,833	-	3,712,833	-
Total current liabilities payable from restricted assets	-	3,745,402	40,012	3,785,414	-
Noncurrent liabilities:					
Accrued compensated absences	68,006	5,238	1,247	74,491	98,110
Other post-employment liability	312,818	75,754	23,799	412,371	189,431
Capitalized lease obligations	-	-	199,426	199,426	-
Bonds and notes outstanding		38,303,936	2,335,000	40,638,936	-
Net pension liability	1,777,756	456,104	57,347	2,291,207	688,431
Total noncurrent liabilities	2,158,580	38,841,032	2,616,819	43,616,431	975,972
Total liabilities	3,890,241	44,550,786	4,266,104	52,707,131	2,117,484
Deferred Inflows of Resources					
Deferred inflows of resources for pension	99,370	25,892	3,206	128,468	38,807
Net Position					
Net investment in capital assets	-	59,005,425	422,767	59,428,192	14,906
Restricted:					
Debt service	-	5,130,582	-	5,130,582	-
Construction	2,142,900	-	2,240,004	4,382,904	-
Workers' compensation	-	-	-	-	463,363
Unrestricted	-	2,131,267	(1,514,266)	617,001	6,223,063
Total net position	$ 2,142,900	$ 66,267,274	$ 1,148,505	69,558,679	$ 6,701,332
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				5,280,425	
Net position of business-type activities				$ 74,839,104	

See accompanying notes to basic financial statements.

CITY OF YORK, PENNSYLVANIA
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2017

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:					
Charges for services	$ 9,281,126	$ 9,142,361	$ 545,328	$ 18,968,815	$ 16,194,898
Rental income	-	-	534,264	534,264	-
Revenue from other local governments	-	-	79,759	79,759	-
Miscellaneous income	36,997	440	8,668	46,105	-
Total operating revenues	9,318,123	9,142,801	1,168,019	19,628,943	16,194,898
Operating expenses:					
Personnel services	2,549,005	524,446	389,029	3,462,480	2,215,088
Utilities	691,322	-	210,473	901,795	-
Treatment costs	-	3,421,833	-	3,421,833	-
Contractual services	947,445	220,283	26,452	1,194,180	-
Professional services	537,980	527,731	76,188	1,141,899	877,168
Materials and supplies	908,899	28,055	104,902	1,041,856	354,030
Sludge	461,745	-	-	461,745	-
Administrative	746,325	873,321	190,708	1,810,354	366,830
Health insurance claims	-	-	-	-	9,355,078
Insurance premiums	-	-	78,020	78,020	1,039,416
Workers' compensation insurance	-	-	-	-	608,930
Depreciation	-	3,684,717	270,353	3,955,070	29,813
Miscellaneous	1,992,708	537,153	20,687	2,550,548	849,392
Total operating expenses	8,835,429	9,817,539	1,366,812	20,019,780	15,695,745
Operating income (loss)	482,694	(674,738)	(198,793)	(390,837)	499,153
Nonoperating revenue (expenses):					
Grants	-	-	60,000	60,000	-
Investment income	16,840	1,160,219	21,340	1,198,399	35,203
Contributions	-	-	14,970	14,970	-
Springettsbury capacity sale	-	831,000	-	831,000	-
Interest expense	-	(2,198,405)	(175,636)	(2,374,041)	-
Total nonoperating revenue (expenses)	16,840	(207,186)	(79,326)	(269,672)	35,203
Change in net position before transfers	499,534	(881,924)	(278,119)	(660,509)	534,356
Transfers in	-	-	562,197	919,981	-
Transfers out	(357,784)	(2,846,902)	-	(3,204,686)	-
Change in net position	141,750	(3,371,042)	284,078	(2,945,214)	534,356
Net position - beginning of year	2,001,150	69,638,316	864,427		6,166,976
Net position - end of year	$ 2,142,900	$ 66,267,274	$ 1,148,505		$ 6,701,332
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				515,968	
Change in net position of business-type activities				$ (2,429,246)	

See accompanying notes to basic financial statements.

Appendix A-5-1 (AUS)

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City of York, Pennsylvania

Financial Statements and Required Supplementary Information

Year Ended December 31, 2018 with Accountant's Compilation Report

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161.38.122.15

05/29/2020

CITY OF YORK, PENNSYLVANIA
STATEMENT OF NET POSITION - PROPRIETARY FUNDS
DECEMBER 31, 2018

DRAFT

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Assets					
Current assets:					
Cash and cash equivalents	$ 3,180,321	$ 1,504,851	$ -	$ 4,685,172	$ 3,381,461
Receivables:					
Lease rentals, current	-	2,044,889	-	2,044,889	-
Accounts receivable (less allowance for doubtful accounts of $4,778,759)	157,304	2,461,218	90,842	2,709,364	933,045
Prepaid expenses	-	-	-	-	25,547
Due from other funds	3,711,898	822,714	-	4,534,612	1,236,309
Total current assets	7,049,523	6,833,672	90,842	13,974,037	5,576,362
Restricted assets:					
Cash and cash equivalents	-	12,172,672	2,378,994	14,551,666	468,128
Total restricted assets	-	12,172,672	2,378,994	14,551,666	468,128
Noncurrent assets:					
Lease rentals receivable, long-term	-	16,506,776	-	16,506,776	-
Capital assets, net of accumulated depreciation	-	69,928,879	2,726,852	72,655,731	-
Prepaid debt insurance	-	17,834	-	17,834	-
Total noncurrent assets	-	86,453,489	2,726,852	89,180,341	-
Total assets	7,049,523	105,459,833	5,196,688	117,706,044	6,044,490
Deferred Outflows of Resources					
Deferred outflows of resources for pension	809,753	221,509	25,131	1,056,393	282,028
Deferred outflows of resources for other post-employment benefits	54,887	15,283	2,714	72,884	31,658
Deferred charges on refunding	-	2,825,912	-	2,825,912	-
Total deferred outflows of resources	864,640	3,062,704	27,845	3,955,189	313,686
Liabilities					
Current liabilities:					
Accounts payable and accrued expenses	561,698	1,894,545	103,696	2,559,939	1,479,736
Accrued wages payable	98,339	25,907	1,832	126,078	29,088
Accrued interest	-	-	12,011	12,011	-
Due to other funds	770,273	3,711,898	1,246,146	5,728,317	-
Due to other governments	1,382,475	2,159,930	-	3,542,405	-
Unearned revenue	-	76,890	77,232	154,122	-
Total current liabilities	2,812,785	7,869,170	1,440,917	12,122,872	1,508,824
Current liabilities payable from restricted assets:					
Current portion of capitalized lease obligations	-	-	41,121	41,121	-
Current portion of bonds and notes payable	-	3,819,368	-	3,819,368	-
Total current liabilities payable from restricted assets	-	3,819,368	41,121	3,860,489	-
Noncurrent liabilities:					
Accrued compensated absences	40,416	1,253	636	42,305	35,604
Total other post-employment benefits liability	1,481,428	419,651	59,970	1,961,049	701,367
Capitalized lease obligations	-	-	158,305	158,305	-
Bonds and notes outstanding	-	34,044,461	2,335,000	36,379,461	-
Net pension liability	2,518,414	658,102	79,791	3,256,307	935,317
Total noncurrent liabilities	4,040,258	35,123,467	2,633,702	41,797,427	1,672,288
Total liabilities	6,853,043	46,812,005	4,115,740	57,780,788	3,181,112
Deferred Inflows of Resources					
Deferred inflows of resources for pension	55,873	14,029	1,887	71,789	24,308
Deferred inflows of resources for other post-employment benefits	56,820	15,661	3,136	75,617	36,549
Total deferred inflows of resources	112,693	29,690	5,023	147,406	60,857
Net Position					
Net investment in capital assets	-	58,124,457	192,426	58,316,883	-
Restricted:					
Debt service	-	5,187,342	-	5,187,342	-
Construction	948,427	-	2,378,994	3,327,421	-
Workers' compensation	-	-	-	-	468,128
Unrestricted	-	(1,630,957)	(1,467,650)	(3,098,607)	2,648,079
Total net position	$ 948,427	$ 61,680,842	$ 1,103,770	63,733,039	$ 3,116,207
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				5,391,649	
Net position of business-type activities				$ 69,124,688	

See accompanying notes and accountant's compilation report.

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CITY OF YORK, PENNSYLVANIA
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2018

	Business-type Activities - Enterprise Funds				
	Intermunicipal Sewer Fund	Sewer Fund	Other Enterprise Funds	Total	Internal Service Fund
Operating revenues:					
Charges for services	$ 9,290,350	$ 9,098,115	$ 516,710	$ 18,905,175	$ 16,199,443
Rental income	-	-	628,573	628,573	-
Revenue from other local governments	-	-	95,646	95,646	-
Miscellaneous income	35,878	32,375	2,550	70,803	-
Total operating revenues	9,326,228	9,130,490	1,243,479	19,700,197	16,199,443
Operating expenses;					
Personnel services	2,344,163	604,018	397,177	3,345,358	2,485,117
Utilities	733,208	-	227,539	960,747	-
Treatment costs	-	5,038,571	-	5,038,571	-
Contractual services	1,771,822	318,571	33,370	2,123,763	-
Professional services	111,844	287,379	90,936	490,159	868,270
Materials and supplies	1,093,155	31,977	117,875	1,243,007	496,910
Sludge	422,825	-	-	422,825	-
Administrative	749,693	869,601	163,386	1,782,680	400,734
Health insurance claims	-	-	-	-	10,523,617
Insurance premiums	-	-	40,796	40,796	1,070,306
Workers' compensation insurance	-	-	-	-	2,284,999
Depreciation	-	3,608,871	270,353	3,879,224	14,906
Miscellaneous	1,752,572	588,116	21,106	2,361,794	1,131,672
Total operating expenses	8,979,282	11,347,104	1,362,538	21,688,924	19,276,531
Operating income (loss)	346,946	(2,216,614)	(119,059)	(1,988,727)	(3,077,088)
Nonoperating revenue (expenses):					
Grants	-	-	60,012	60,012	-
Investment income	42,373	943,237	40,665	1,026,275	34,512
Contributions	-	-	18,495	18,495	-
Springettsbury capacity sale	-	831,000	-	831,000	-
Interest expense	-	(1,433,176)	(102,378)	(1,535,554)	-
Total nonoperating revenue (expenses)	42,373	341,061	16,794	400,228	34,512
Change in net position before transfers and contributed capital	389,319	(1,875,553)	(102,265)	(1,588,499)	(3,042,576)
Transfers in	-	341,359	96,085	437,444	-
Transfers out	(341,359)	(2,894,856)	-	(3,236,215)	-
Contributed captial	-	209,584	-	209,584	-
Change in net position	47,960	(4,219,466)	(6,180)	(4,177,686)	(3,042,576)
Net position - beginning of year, restated	900,467	65,900,308	1,109,950		6,158,783
Net position - end of year	$ 948,427	$ 61,680,842	$ 1,103,770		$ 3,116,207
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds				111,224	
Change in net position of business-type activities				$ (4,066,462)	

See accompanying notes and accountant's compilation report.

CITY OF YORK SEWER AUTHORITY
(A Component Unit of the City of York, Pennsylvania)

ANNUAL FINANCIAL REPORT

Years Ended December 31, 2012 and 2011

Maillie
Expertise Beyond The Numbers
Certified Public Accountants and Business Consultants

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF NET POSITION

DECEMBER 31, 2012 AND 2011

	2012	2011
Assets		
Cash and cash equivalents	$ 40,425	$ 33,687
Restricted assets:		
Cash and cash equivalents	9,667,943	13,716,597
Investments	1,729,785	2,147,889
	11,397,728	15,864,486
Grants receivable	41,041	139,211
Net investment in direct financing lease	56,909,663	59,636,628
Total Assets	68,388,857	75,674,012
Liabilities		
Accounts payable	11,514	7,269
Obligation to construct	41,041	1,415,607
Liabilities payable from restricted assets:		
Accounts payable	131,235	2,038,792
Funds held on behalf of the City of York	6,523,809	6,515,576
Bonds payable:		
Due within one year	4,015,382	4,011,110
Due in more than one year	53,743,861	56,653,490
Total Liabilities	64,466,842	70,641,844
Net Position		
Restricted for:		
Debt service	1,884,888	2,311,036
Construction	2,857,796	3,172,330
Unrestricted	(820,669)	(451,198)
Total Net Position	$ 3,922,015	$ 5,032,168

See accompanying notes to basic financial statements.

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2012 AND 2011

	2012	2011
Operating Revenues:		
Lease investment income	$ 2,982,510	$ 3,024,064
Total operating revenues	2,982,510	3,024,064
Operating Expenses:		
Interest expense	2,869,885	3,053,870
Professional services	22,725	81,448
Miscellaneous expense	5,797	28,157
Total operating expenses	2,898,407	3,163,475
Operating Income (Loss)	84,103	(139,411)
Non-Operating Revenues (Expenses):		
Investment income	23,574	105,066
Transfers from (to) City of York	(1,217,830)	2,077,723
Total net non-operating revenues (expenses)	(1,194,256)	2,182,789
Change in Net Position	(1,110,153)	2,043,378
Net Position:		
Beginning of year	5,032,168	2,988,790
End of year	$ 3,922,015	$ 5,032,168

See accompanying notes to basic financial statements.

CITY OF YORK SEWER AUTHORITY
(A Component Unit of the City of York, Pennsylvania)

ANNUAL FINANCIAL REPORT

Years Ended December 31, 2015 and 2014

Maillie®

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF NET POSITION

DECEMBER 31, 2015 AND 2014

	2015	2014
Assets		
Cash and cash equivalents	$ 28,240	$ 28,562
Restricted assets:		
Cash and cash equivalents	4,853,192	9,990,352
Investments	5,929,255	867,279
	10,782,447	10,857,631
Net investment in direct financing lease	47,363,749	50,806,742
Total Assets	58,174,436	61,692,935
Liabilities		
Accounts payable	14,125	11,989
Liabilities payable from restricted assets:		
Accounts payable	-	4,854
Funds held on behalf of the City of York	6,520,699	6,521,898
Bonds payable:		
Due within one year	4,139,808	4,138,318
Due in more than one year	43,459,090	47,122,515
Total Liabilities	54,133,722	57,799,574
Net Position		
Restricted for:		
Debt service	435,810	868,813
Construction	3,825,938	3,462,068
Unrestricted	(221,034)	(437,520)
Total Net Position	$ 4,040,714	$ 3,893,361

See accompanying notes to basic financial statements.

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2015 AND 2014

	2015	2014
Operating Revenues:		
Lease investment income	$ 2,302,642	$ 2,567,708
Total operating revenues	2,302,642	2,567,708
Operating Expenses:		
Interest expense	2,175,897	2,448,005
Professional services	27,010	75,560
Miscellaneous expense	24,916	11,498
Total operating expenses	2,227,823	2,535,063
Operating Income	74,819	32,645
Non-Operating Revenues (Expenses):		
Investment income	1,609	7,022
Miscellaneous income	87,015	63,766
Transfers to City of York	(16,090)	(78,621)
Total non-operating revenues (expenses)	72,534	(7,833)
Change in Net Position	147,353	24,812
Net Position:		
Beginning of year	3,893,361	3,868,549
End of year	$ 4,040,714	$ 3,893,361

See accompanying notes to basic financial statements.

CITY OF YORK SEWER AUTHORITY
(A Component Unit of the City of York, Pennsylvania)

ANNUAL FINANCIAL REPORT

Years Ended December 31, 2017 and 2016

Maillie
Expertise Beyond The Numbers
Certified Public Accountants and Business Consultants

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF NET POSITION

DECEMBER 31, 2017 AND 2016

	2017	2016
Assets		
Cash and cash equivalents	$ 3,140	$ 31,139
Restricted assets:		
Cash and cash equivalents	9,778,251	10,616,208
Net investment in direct financing lease	38,362,814	43,694,127
Total Assets	48,144,205	54,341,474
Liabilities		
Accounts payable	17,787	12,200
Liabilities payable from restricted assets:		
Accounts payable	67,960	-
Funds held on behalf of the City of York	5,972,675	6,521,720
Bonds payable:		
Due within one year	3,712,833	3,611,313
Due in more than one year	34,649,981	40,082,814
Total Liabilities	44,421,236	50,228,047
Net Position		
Restricted for:		
Debt service	3,536	1,701
Construction	3,718,380	4,092,788
Unrestricted	1,053	18,938
Total Net Position	$ 3,722,969	$ 4,113,427

See accompanying notes to basic financial statements.

CITY OF YORK SEWER AUTHORITY

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2017 AND 2016

	2017	2016
Operating Revenues:		
Lease investment income	$ 1,878,445	$ 2,065,646
Total operating revenues	1,878,445	2,065,646
Operating Expenses:		
Interest expense	1,762,074	1,929,158
Professional services	22,869	7,534
Miscellaneous expense	15,850	21,068
Total operating expenses	1,800,793	1,957,760
Operating Income	77,652	107,886
Non-Operating Revenues (Expenses):		
Investment income	42,468	13,717
Miscellaneous income	-	20,448
Transfers to City of York	(510,578)	(69,338)
Total non-operating revenues (expenses)	(468,110)	(35,173)
Change in Net Position	(390,458)	72,713
Net Position:		
Beginning of year	4,113,427	4,040,714
End of year	$ 3,722,969	$ 4,113,427

See accompanying notes to basic financial statements.

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City of York Sewer Authority (A Component Unit of the City of York, Pennsylvania)

Financial Statements

Years Ended December 31, 2018 and 2017 with Accountant's Compilation Report

CITY OF YORK SEWER AUTHORITY DRAFT

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF NET POSITION

DECEMBER 31, 2018 AND 2017

	2018	2017
Assets		
Cash and cash equivalents	$ 28,201	$ 3,140
Restricted assets:		
Cash and cash equivalents	12,172,672	9,778,251
Net investment in direct financing lease	34,649,981	38,362,814
Total Assets	46,850,854	48,144,205
Liabilities		
Accounts payable	1,911	17,787
Liabilities payable from restricted assets:		
Accounts payable	36,399	67,960
Funds held on behalf of the City of York	6,229,920	5,972,675
Due to other governments	2,159,930	-
Bonds payable:		
Due within one year	3,819,368	3,712,833
Due in more than one year	30,830,613	34,649,981
Total Liabilities	43,078,141	44,421,236
Net Position		
Restricted for:		
Debt service	2,909	3,536
Construction	3,743,513	3,718,380
Unrestricted	26,291	1,053
Total Net Position	$ 3,772,713	$ 3,722,969

See accompanying notes and accountant's compilation report.

CITY OF YORK SEWER AUTHORITY DRAFT

(A Component Unit of the City of York, Pennsylvania)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
Operating Revenues:		
Lease investment income	$ 1,689,976	$ 1,878,445
Total operating revenues	1,689,976	1,878,445
Operating Expenses:		
Interest expense	1,458,352	1,762,074
Professional services	25,027	22,869
Miscellaneous expense	18,191	15,850
Total operating expenses	1,501,570	1,800,793
Operating Income	188,406	77,652
Non-Operating Revenues (Expenses):		
Investment income	132,754	42,468
Miscellaneous income	50	-
Transfers to City of York	(271,466)	(510,578)
Total non-operating revenues (expenses)	(138,662)	(468,110)
Change in Net Position	49,744	(390,458)
Net Position:		
Beginning of year	3,722,969	4,113,427
End of year	$ 3,772,713	$ 3,722,969

See accompanying notes and accountant's compilation report.

FY 2020 BUDGET

CITY OF
york
PENNSYLVANIA

Approved Budget 2020

MAYOR MICHAEL HELFRICH
101 S. GEORGE ST. YORK, PA 17401
WWW.YORKCITY.ORG

Request A. ount by Fund

Fund	Fund Description		2019 Adjusted Budget	2019 Projected Year End	2020 APPROVED Budget	2020 Variance	Balanced by Using Prior Year Fund Balance
60 -	SEWER	**Revenue:**	$ (14,956,691)	$ (12,100,695)	$ (14,341,968)		
						$ 634,082	**$ (634,082)**
		Expense:	$ 14,938,330	$ 16,684,025	$ 14,976,050		
61 -	IMSF	**Revenue:**	$ (9,684,490)	$ (9,846,775)	$ (8,751,934)		
						$ (141,894)	**$ -**
		Expense:	$ 9,632,574	$ 9,236,955	$ 8,610,040		
62 -	SEWER TRANSPORTATION	**Revenue:**	$ -	$ (98,638)	$ (30,000)		
						$ (30,000)	**$ -**
		Expense:	$ -	$ -	$ -		
65 -	ICE RINK	**Revenue:**	$ (1,003,375)	$ (1,095,500)	$ (1,105,500)		
						$ (140,250)	**$ -**
		Expense:	$ 916,296	$ 1,106,920	$ 965,250		
66 -	WHITE ROSE COMMUNITY TELEVISION	**Revenue:**	$ (197,863)	$ (195,774)	$ (196,000)		
						$ (85,681)	**$ -**
		Expense:	$ 126,686	$ 124,444	$ 110,319		
70 -	INTERNAL SERVICES	**Revenue:**	$ (17,435,033)	$ (17,753,772)	$ (15,096,073)		
						$ 3,001,011	**$ (3,001,011)**
		Expense:	$ 17,438,321	$ 16,443,994	$ 18,097,084		
93 -	WEYER TRUST	**Revenue:**	$ (131,004)	$ (131,004)	$ (133,333)		
						$ 14,001	**$ (14,001)**
		Expense:	$ 131,004	$ 131,004	$ 147,334		
	TOTALS	**Revenue:**	**$ (108,878,384)**	**$ (102,702,160)**	**$ (104,590,785)**		
						$ 5,954,167	**$ (6,639,669)**
		Expense:	**$ 110,262,282**	**$ 103,678,464**	**$ 110,544,951**		

Budget Request/A t/Proposed Report

2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$53,937,125**	2020 Request Total:	**$52,039,677**	2019 Budget Total:	**$20,384,261**	2020 Request Total:	**$23,961,231**
2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
41-210-30011-00000	REAL ESTATE TAXES - PRIOR	$0	$87		$0	$0
41-210-30020-00000	TAX CLAIM	$25,000	$20,882	$20,000	$20,000	$20,000
42-210-30020-00000	TAX CLAIM	$0	$37,011	$0	$0	$0
43-210-30020-00000	TAX CLAIM	$0	$296	$0	$0	$0
44-210-37156-00000	CREDIT INTEREST PAYMENT(IRS)	$47,713	$0	$48,337	$48,337	$48,337
44-210-38091-00000	LEASES	$147,255	$148,314	$150,453	$150,453	$150,453
44-210-39090-00000	TRANSFER FROM GENERAL FUND	$78,732	$78,732	$72,800	$72,800	$72,800
45-210-30010-00000	REAL ESTATE TAXES	$80,231	$79,846	$110,855	$9,755	$9,755
45-210-30011-00000	REAL ESTATE TAXES - PRIOR	$0	$59		$0	$0
45-210-30020-00000	TAX CLAIM	$0	$4,658	$4,500	$4,500	$4,500
45-210-39090-00000	TRANSFER FROM GENERAL FUND	$281,686	$281,686	$284,437	$284,437	$284,437
45-210-39100-00000	TRANSFER FROM RECREATION FUND	$38,058	$38,058	$33,660	$33,660	$33,660
45-210-39150-00000	TRANSFER FROM SEWER FUND	$281,040	$281,040	$248,564	$248,564	$248,564
45-210-39199-00000	TRANSFER FROM 2001 ICE RINK BOND I	$0	$0		$101,678	$101,678
60-210-35290-00000	SEWER FEES	$11,400,000	$9,000,000	$9,000,000	$8,847,890	$8,847,890
60-210-35291-00000	SEWER FEES-PAST DUE	$0	$0	$0	$2,000,000	$2,000,000
60-210-35292-00000	SEWER FEES-AMNESTY	$0	$0	$0	$0	$100,000
60-210-35350-00000	TAX & SEWER CERTIFICATION/COPY	$3,000	$1,800	$2,000	$2,000	$2,000
61-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$0	$90,508	$46,500	$46,500	$46,500
62-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$0	$53,008	$30,000	$30,000	$30,000
Cost Center Total (NONE):		**$41,233,040**	**$39,674,306**	**$39,166,336**	**$41,176,229**	**$41,322,532**
60-210-35400-00019	DEBT SERVICE	$476,585	$488,189	$516,470	$539,392	$539,392
61-210-35380-00019	TREATMENT CHARGE	$1,054,214	$934,716	$1,164,624	$983,694	$975,132
62-210-35390-00019	SEWER CHARGE	$0	$1,348	$0	$0	$0
Cost Center Total (MANCHESTER TWP):		**$1,530,799**	**$1,424,253**	**$1,681,094**	**$1,523,086**	**$1,514,524**
60-210-35400-00020	DEBT SERVICE	$100,709	$106,287	$112,444	$117,434	$117,434
61-210-35380-00020	TREATMENT CHARGE	$160,019	$162,028	$154,818	$132,517	$131,363
62-210-35390-00020	SEWER CHARGE	$0	$1,698	$0	$0	$0
Cost Center Total (NORTH YORK BOROUGH):		**$260,728**	**$270,012**	**$267,262**	**$249,951**	**$248,797**
60-210-35400-00021	DEBT SERVICE	$588,992	$603,333	$638,284	$666,613	$666,613

Budget Request/Draft/Proposed Report

2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
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2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
61-210-35380-00021	TREATMENT CHARGE	$1,263,556	$1,254,860	$1,212,979	$1,082,769	$1,073,344
62-210-35390-00021	SEWER CHARGE	$0	$12,122	$0	$0	$0
Cost Center Total (SPRING GARDEN TWP):		**$1,852,548**	**$1,870,314**	**$1,851,263**	**$1,749,382**	**$1,739,957**
60-210-35400-00022	DEBT SERVICE	$601,000	$76,000	$76,000	$76,000	$76,000
60-210-35410-00022	CAPACITY SALE - SPRINGETTSBURY	$230,000	$230,000	$230,000	$230,000	$230,000
61-210-35380-00022	TREATMENT CHARGE	$29,367	$66,968	$54,139	$44,227	$43,842
Cost Center Total (SPRINGETTSBURY TWP):		**$860,367**	**$372,968**	**$360,139**	**$350,227**	**$349,842**
60-210-35400-00023	DEBT SERVICE	$663,761	$677,316	$716,554	$748,357	$748,357
61-210-35380-00023	TREATMENT CHARGE	$1,151,207	$1,165,146	$1,137,679	$984,677	$976,106
62-210-35390-00023	SEWER CHARGE	$0	$12,909	$0	$0	$0
Cost Center Total (WEST MANCHESTER TWP):		**$1,814,968**	**$1,855,372**	**$1,854,233**	**$1,733,034**	**$1,724,463**
60-210-35400-00024	DEBT SERVICE	$234,987	$240,708	$254,652	$265,954	$265,954
61-210-35380-00024	TREATMENT CHARGE	$972,237	$939,536	$1,045,805	$897,526	$889,714
62-210-35390-00024	SEWER CHARGE	$0	$6,073	$0	$0	$0
Cost Center Total (WEST YORK BOROUGH):		**$1,207,224**	**$1,186,316**	**$1,300,457**	**$1,163,480**	**$1,155,668**
60-210-35400-00025	DEBT SERVICE	$657,657	$673,669	$712,695	$744,327	$744,327
61-210-35380-00025	TREATMENT CHARGE	$1,221,579	$1,220,088	$1,253,891	$1,045,074	$1,035,977
62-210-35390-00025	SEWER CHARGE	$0	$11,480	$0	$0	$0
Cost Center Total (YORK TOWNSHIP):		**$1,879,236**	**$1,905,238**	**$1,966,586**	**$1,789,401**	**$1,780,304**
61-210-35380-00026	TREATMENT CHARGE	$3,298,215	$3,298,215	$3,592,306	$2,967,789	$2,941,956
Cost Center Total (YORK CITY):		**$3,298,215**	**$3,298,215**	**$3,592,306**	**$2,967,789**	**$2,941,956**
Total Revenue:		**$53,937,125**	**$51,856,995**	**$52,039,677**	**$52,702,580**	**$52,778,044**

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2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
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2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
	EXPENSES					
10-210-40010-00000	SALARIES/WAGES	$167,485	$132,001	$136,885	$136,885	$136,885
10-210-40030-00000	OVERTIME	$7,500	$4,656	$1,000	$1,000	$1,000
10-210-40040-00000	SHIFT DIFFERENTIAL	$100	$33	$50	$50	$50
10-210-40150-00000	CONTINGENCY	$228,348	$0	$1,199,124	$670,982	$670,982
10-210-41010-00000	FICA	$13,386	$10,408	$10,552	$10,552	$10,552
10-210-41041-00000	UNFUNDED PENSION LIABILITY(EIT DI	$0	$0	$2,079,651	$2,079,651	$2,079,651
10-210-42040-00000	AUDIT	$77,800	$77,800	$77,800	$77,800	$77,800
10-210-42070-00000	OTHER PROFESSIONAL SERVICES	$174,600	$272,190	$147,220	$312,820	$312,820
10-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$0	$30,713		$0	$0
10-210-43150-00000	INTERFUND TRANSFER	$696,960	$739,030	$696,960	$690,225	$708,423
10-210-43170-00000	REFUNDS	$0	$30,444		$0	$0
10-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$20,866	$20,866	$16,908	$16,725	$16,448
10-210-43191-00000	INFO SERVICES ALLOCATIONS	$14,649	$14,649	$17,496	$16,139	$15,917
10-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$4,844	$4,844	$3,058	$3,093	$3,106
10-210-43193-00000	INSURANCE ALLOCATIONS	$108,220	$108,220	$64,895	$59,500	$46,992
10-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$30,854	$30,854	$20,122	$20,188	$20,211
10-210-44020-00000	PRINTING/BINDING	$0	$0		$0	$1,500
10-210-44030-00000	ASSOCIATION DUES/CONFERENCES	$0	$0		$0	$300
20-210-40150-00000	CONTINGENCY	$13,113	$0	$61,411	$0	$0
40-210-43110-00000	TRUSTEE FEES	$1,525	$1,500	$1,500	$1,500	$1,500
40-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$4,190,000	$4,190,000	$4,190,000	$4,190,000	$4,190,000
41-210-43110-00000	TRUSTEE FEES	$1,100	$972	$1,000	$1,000	$1,000
41-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$160,000	$160,000	$160,000	$160,000	$160,000
42-210-43150-00000	Interfund Transfer	$0	$0	$0	$101,678	$101,678
44-210-43110-00000	TRUSTEE FEES	$1,000	$0	$1,000	$1,000	$1,000
44-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$137,700	$137,700	$125,550	$125,550	$125,550
44-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$135,000	$135,000	$145,000	$145,000	$145,000
45-210-43110-00000	TRUSTEE FEES	$1,000	$1,000	$1,000	$1,000	$1,000
45-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$672,235	$672,235	$672,035	$672,035	$672,035
45-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$5,000	$5,000	$5,000	$5,000	$5,000
60-210-40010-00000	SALARIES/WAGES	$202,932	$193,674	$90,452	$90,452	$90,452
60-210-40030-00000	OVERTIME	$12,000	$9,320	$10,000	$3,000	$3,000
60-210-40040-00000	SHIFT DIFFERENTIAL	$125	$0		$0	$0
60-210-40150-00000	CONTINGENCY	$10,133	$0	$37,714	$0	$0

Budget Request/Draft/Proposed Report

2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
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Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
60-210-41010-00000	FICA	$16,442	$16,596	$6,996	$7,149	$7,149
60-210-42040-00000	AUDIT	$8,570	$8,570	$8,750	$8,750	$8,750
60-210-42070-00000	OTHER PROFESSIONAL SERVICES	$0	$0		$248,400	$248,400
60-210-42080-00000	COLLECTION FEES	$28,500	$6,800	$25,000	$25,000	$25,000
60-210-43090-00000	INDIRECT COSTS	$869,601	$869,601	$869,601	$869,601	$840,298
60-210-43131-00000	SEWER LEASE/DEBT SERVICE	$5,086,290	$5,210,127	$5,511,954	$5,756,590	$5,756,590
60-210-43150-00000	INTERFUND TRANSFER	$2,874,276	$2,874,276	$2,874,276	$2,874,276	$2,874,276
60-210-43170-00000	REFUNDS	$0	$4,101		$0	$0
60-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$10,823	$10,823	$3,268	$3,151	$2,975
60-210-43191-00000	INFO SERVICES ALLOCATIONS	$9,584	$9,584	$11,446	$10,558	$10,413
60-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$5,921	$5,921	$1,946	$1,968	$1,977
60-210-43193-00000	INSURANCE ALLOCATIONS	$131,479	$131,479	$35,059	$33,618	$25,676
60-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$37,711	$37,711	$12,805	$12,847	$12,861
60-210-44170-00000	BUILDING RENT	$6,489	$6,489	$6,489	$6,489	$6,489
60-210-44280-00000	DATA PROCESSING	$89,700	$84,206	$87,200	$0	$0
60-210-44290-00000	TOWNSHIP SEWER AGREEMENT	$23,700	$23,616	$23,700	$23,700	$23,700
60-210-44300-00000	SEWER TREATMENT	$3,298,215	$3,298,215	$3,592,306	$2,967,789	$2,941,956
61-210-40150-00000	CONTINGENCY	$31,002	$0	$142,645	$0	$0
61-210-42040-00000	AUDIT	$14,500	$14,500	$14,500	$14,500	$14,500
61-210-43090-00000	INDIRECT COSTS	$749,693	$749,693	$749,693	$749,693	$675,299
70-210-40150-00000	CONTINGENCY	$3,287	$0	$10,213	$0	$0
Cost Center Total (NONE):		**$20,384,261**	**$20,345,417**	**$23,961,231**	**$23,206,905**	**$23,076,159**
Total Expenses:		**$20,384,261**	**$20,345,417**	**$23,961,231**	**$23,206,905**	**$23,076,159**

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2020 Proposed Budget

FINANCE

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Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 YTD Projected	Explanation
		PROJECTED REVENUE	
10-210-30060-00000	EARNED INCOME	$3,313,737	Based on collections in 2018 for the months of July through December
10-210-30063-00000	EARNED INCOME-DISTRESSED PENSIO	$3,738,927	Based on collections in 2018 for the months of July through December
10-210-30070-00000	LOCAL SERVICES TAX	$1,203,648	Based on collections in 2018 for the months of July through December
10-210-30080-00000	MERCANTILE/BP TAXES	$3,473,436	Based on collections in 2018 for the months of July through December-
10-210-30082-00000	ADMISSIONS TAX	$20,263	Based on collections in 2018 for the months of July through December from the York Adams Tax Bureau
10-210-30083-00000	PARKING TAX	$260,522	Based on actual collections through August and the amount collected in 2018 for the months of September through December
10-210-30085-00000	MERCANTILE/BP-DELINQUENT	$200	
10-210-31100-00000	CABLE TV FRANCHISE LICENSES	$280,136	Based on collections in 2018 for the 3rd and 4th quarters and the actual collection for the 2nd quarter
10-210-31282-00000	PARKING TAX LICENSE FEE	$11,860	License Fees collected in January. No revenue expected for remaining portion of year
10-210-31284-00000	BYOB PERMIT	$250	
10-210-32030-00000	TICKET NOTICE FEES	$20	
10-210-32060-00000	PARKING FINE-CITY,STATE,PARKIN	$1,016,495	Based on average monthly collections January - August 2019
10-210-32061-00000	FINES-MAGISTRATE	$696,279	Based on 2019 collections
10-210-32080-00000	STATE POLICE FINES	$19,006	Based on the 2nd payment in 2018
10-210-32110-00000	BAD CHECKS	$1,955	
10-210-32120-00000	BAD CHECK CHARGE	$200	
10-210-34100-00000	PUBLIC UTILITY REALTY TAX ASSE	$30,000	Based on decreasing collections since 2016
10-210-35300-00000	REFUSE FEES	$5,723,750	Through July, the collection rate was 55.38. Taking 55.38/7=7.91 per month. 7.91 X 5 = 39.55 + 55.38 = 94.93%
10-210-35320-00000	HAZARDOUS WASTE FEES	$43,260	Based on 2nd quarter collection of $9,606.00 projected for 3rd and 4th quarters
10-210-35511-00000	NO PARKING SIGN FEE	$500	Based on actual collections for 2017, 2016 and 2015
10-210-35654-00000	RESIDENTIAL PARKING PERMITS	$550	Based on 2018 collections for the months of July - December
10-210-35655-00000	RESIDENTIAL HANDICAPPED PARKING	$3,293	Actual collections July and August. Difficult to determine if more applications for hadicapped parking will be submitted with a payment of $50.00.
10-210-36033-00000	CONTRIBUTIONS IN LIEU OF TAXES	$667,760	Actual collections for July and projected collections August thru December from not for profit organizations
10-210-37080-00000	MISCELLANEOUS	$2,807	
10-210-39083-00000	GA REIMB-OTHER REIMB ADMIN	$47,162	
10-210-39150-00000	TRANSFER FROM SEWER FUND	$3,502,418	Calculated: Internal Services
10-210-39160-00000	TRANSFER FROM IMSF	$749,693	Calculated: Internal Services

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2020 Proposed Budget

FINANCE

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Account	Description	2019 YTD Projected	Explanation
40-210-30010-00000	REAL ESTATE TAXES	$2,081,461	Using 2018 collection rate of 99.52% of budget.
40-210-30011-00000	REAL ESTATE TAXES - PRIOR	$1,675	
40-210-30020-00000	TAX CLAIM	$221,088	Contingent upon collections by the Tax Claim Bureau
40-210-34130-00000	PENSION - STATE AID	$2,309,345	Actual Pension State Aid received September 18, 2019
41-210-30010-00000	REAL ESTATE TAXES	$136,626	Based on 2018 collection rate of 99.52% of budget.
41-210-30011-00000	REAL ESTATE TAXES - PRIOR	$87	
41-210-30020-00000	TAX CLAIM	$20,882	Contingent upon collections by Tax Claim Bureau
42-210-30020-00000	TAX CLAIM	$37,011	Contingent upon collections by Tax Claim Bureau
43-210-30020-00000	TAX CLAIM	$296	Contingent upon collections by Tax Claim Bureau
44-210-38091-00000	LEASES	$148,314	Family First $855.00 X 6 months=$5,130.00, Santander $8,982.25 X 6 months=$53,893.50, City departments $2,610.40 X 12 months=$31,324.80
44-210-39090-00000	TRANSFER FROM GENERAL FUND	$78,732	Calculated: Internal Services
45-210-30010-00000	REAL ESTATE TAXES	$79,846	Based on 2018 collections of 99.52% of budget
45-210-30011-00000	REAL ESTATE TAXES - PRIOR	$59	
45-210-30020-00000	TAX CLAIM	$4,658	Contingent upon collections by Tax Claim Bureau
45-210-39090-00000	TRANSFER FROM GENERAL FUND	$281,686	Calculated: Internal Services
45-210-39100-00000	TRANSFER FROM RECREATION FUND	$38,058	Calculated: Internal Services
45-210-39150-00000	TRANSFER FROM SEWER FUND	$281,040	Calculated: Internal Services
60-210-35290-00000	SEWER FEES	$9,000,000	Based on 2018 actual collections
60-210-35350-00000	TAX & SEWER CERTIFICATION/COPY	$1,800	Sewer History reports @ $25.00 for full history and $5.00 for one year
60-210-35400-00019	DEBT SERVICE	$488,189	Manchester Townshiip Based on 9.37% of total debt service
60-210-35400-00020	DEBT SERVICE	$106,287	North York Borough Based on 2.04% of total debt service
60-210-35400-00021	DEBT SERVICE	$603,333	Spring Garden Township Based on 11.58% of total debt serivce
60-210-35400-00022	DEBT SERVICE	$76,000	$230,000.00 should be Capacity Sale, not Debt Service
60-210-35400-00023	DEBT SERVICE	$677,316	West Manchester Township Based on 13% of total debt service
60-210-35400-00024	DEBT SERVICE	$240,708	West York Borough based on 4.62% of total debt service
60-210-35400-00025	DEBT SERVICE	$673,669	York Township based on 12.93% of total debt service
60-210-35410-00022	CAPACITY SALE - SPRINGETTSBURY	$230,000	Per agreement Debt Service Capacity
61-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$90,508	$6,500.00 X 6 months
61-210-35380-00019	TREATMENT CHARGE	$934,716	3rd and 4th quarter treatment charges.
61-210-35380-00020	TREATMENT CHARGE	$162,028	3rd & 4th quarter treatment charges.
61-210-35380-00021	TREATMENT CHARGE	$1,254,860	3rd & 4th quarter treatment charges.
61-210-35380-00022	TREATMENT CHARGE	$66,968	to be recalculated
61-210-35380-00023	TREATMENT CHARGE	$1,165	3rd & 4th quarter treatment charges.
61-210-3538 24	TREATMENT CHARGE	$93	2nd, 3rd & 4th quarter treatment charges.

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2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$53,937,125**	2020 Request Total:	**$52,039,677**	2019 Budget Total:	**$20,384,261**	2020 Request Total:	**$23,961,231**
2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 YTD Projected	Explanation
61-210-35380-00025	TREATMENT CHARGE	$1,220,088	3rd & 4th quarter treatment charges.
61-210-35380-00026	TREATMENT CHARGE	$3,298,215	1st, 2nd, 3rd and 4th quarter treatment charges.
62-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$53,008	Anticipated interest
62-210-35390-00019	SEWER CHARGE	$1,348	
62-210-35390-00020	SEWER CHARGE	$1,698	
62-210-35390-00021	SEWER CHARGE	$12,122	
62-210-35390-00023	SEWER CHARGE	$12,909	
62-210-35390-00024	SEWER CHARGE	$6,073	
62-210-35390-00025	SEWER CHARGE	$11,480	
		PROJECTED EXPENSES	
10-210-40010-00000	SALARIES/WAGES	$132,001	Projection based on current 2019 wage scale.
10-210-40030-00000	OVERTIME	$4,656	Projection based on current 2019 wage scale
10-210-40040-00000	SHIFT DIFFERENTIAL	$33	Projection based on current 2019 wage scale
10-210-41010-00000	FICA	$10,408	7.65% of 2019 salaries.
10-210-42040-00000	AUDIT	$77,800	2018 Audit
10-210-42070-00000	OTHER PROFESSIONAL SERVICES	$272,190	Duff & Phelps 2017 & 2018 Fixed Asset Reports $9,300.00, Accountemps $8,239.81 July and August payments $10,400.00 estimated costs September-December (13 weeks @ $800), McKonly & Asbury Consulting Services $34,320.00 July and August payments $20,000.00 estimated costs September-December (4 months @ $5,000.00), 2018 Financials $91,500.00
10-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$30,713	
10-210-43150-00000	INTERFUND TRANSFER	$739,030	Transfers to 2011 Bond Issue Sinking Fund $78,732.43, 2017 Bond Issue Sinking Fund $ 281,685.78 and Recreation Fund $378,611.56
10-210-43170-00000	REFUNDS	$30,444	
10-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$20,866	Calculated: Internal Services
10-210-43191-00000	INFO SERVICES ALLOCATIONS	$14,649	Calculated: Internal Services
10-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$4,844	Calculated: Internal Services
10-210-43193-00000	INSURANCE ALLOCATIONS	$108,220	Calculated: Internal Services
10-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$30,854	Calculated: Internal Services
40-210-43110-00000	TRUSTEE FEES	$1,500	
40-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$4,190,000	
41-210-43110-00000	TRUSTEE FEES	$972	
41-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$160,000	Debt Service Payment due 12/1/19

2020 Proposed Budget

FINANCE

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2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2019 YTD Projected	Explanation
44-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$137,700	Debt Service Payment due 11/15/19
44-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$135,000	Debt Service Payment due 11/15/19
45-210-43110-00000	TRUSTEE FEES	$1,000	
45-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$672,235	Per debt service schedule
45-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$5,000	Per debt service schedlule
60-210-40010-00000	SALARIES/WAGES	$193,674	Projection based on current 2019 wage scale.
60-210-40030-00000	OVERTIME	$9,320	Projection based on current 2019 wage scale
60-210-41010-00000	FICA	$16,596	7.65% of 2019 salaries.
60-210-42040-00000	AUDIT	$8,570	2018 audit
60-210-42080-00000	COLLECTION FEES	$6,800	York Water Company shutoffs/postings
60-210-43090-00000	INDIRECT COSTS	$869,601	Indirect Costs for 2019
60-210-43131-00000	SEWER LEASE/DEBT SERVICE	$5,210,127	Payment due 11/15/19: Series of 2008 Renogtiated $387,975.00(Includes 5% coverage lease payment), Series 2010A (final payment) $1,738,511.25(Includes 5% coverage lease payment) and Series of 2017 $543,816.00(Incudes 5% coverage lease payment)
60-210-43150-00000	INTERFUND TRANSFER	$2,874,276	$2,593,234.74 transfer to General Fund and $281,041 transfer to 2017 Bond Issue Sinking Fund
60-210-43170-00000	REFUNDS	$4,101	
60-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$10,823	Calculated: Internal Services
60-210-43191-00000	INFO SERVICES ALLOCATIONS	$9,584	Calculated: Internal Services
60-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$5,921	Calculated: Internal Services
60-210-43193-00000	INSURANCE ALLOCATIONS	$131,479	Calculated: Internal Services
60-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$37,711	Calculated: Internal Services
60-210-44170-00000	BUILDING RENT	$6,489	Building Rent for space at 101 S. George Street based on square footage and the number of employees charged to the Sewer Fund
60-210-44280-00000	DATA PROCESSING	$84,206	Printing of monthly sewer/refuse bills $13,324.97, Postage $25,914.19, York Water Company file $600.00 and Bank Fees $5,513.59
60-210-44290-00000	TOWNSHIP SEWER AGREEMENT	$23,616	3rd and 4th quarter payments for Pine Hill Farms
60-210-44300-00000	SEWER TREATMENT	$3,298,215	Transfers for City share of operating costs at the Waste Water Treatment Plant.
61-210-42040-00000	AUDIT	$14,500	Intermunicipal Sewer Fund share of 2018 Audit
61-210-43090-00000	INDIRECT COSTS	$749,693	2019 Indirect Costs to be transferred to General Fund

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2020 Proposed Budget

FINANCE

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Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2020 Proposed	Justification/Explanation
		REQUESTED REVENUE	
10-210-30060-00000	EARNED INCOME	$3,200,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-30063-00000	EARNED INCOME-DISTRESSED PENSIO	$3,700,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-30070-00000	LOCAL SERVICES TAX	$1,200,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-30080-00000	MERCANTILE/BP TAXES	$3,300,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-30082-00000	ADMISSIONS TAX	$20,000	Based on projectied collections for 2019 from the York Adams Tax Bureau
10-210-30083-00000	PARKING TAX	$260,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-31100-00000	CABLE TV FRANCHISE LICENSES	$280,000	Based on projectied collections for 2019 from the York Adams Tax Bureau
10-210-31282-00000	PARKING TAX LICENSE FEE	$11,500	Based on 2018 collections and 2019 projection
10-210-32060-00000	PARKING FINE-CITY,STATE,PARKIN	$1,000,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-32061-00000	FINES-MAGISTRATE	$650,000	Based on actual amount collected for 2018 and projected collections for 2019
10-210-32080-00000	STATE POLICE FINES	$18,500	Based on projected collections for 2019
10-210-34100-00000	PUBLIC UTILITY REALTY TAX ASSE	$30,000	Based on 2019 projected collections
10-210-35300-00000	REFUSE FEES	$5,186,601	Based on 92% collection of current bills.
10-210-35301-00000	REFUSE FEES-PAST DUE	$1,500,000	Collection of past due refuse bills
10-210-35302-00000	REFUSE FEES-AMNESTY	$150,000	Amnesty Program
10-210-35320-00000	HAZARDOUS WASTE FEES	$40,000	Based on projected collections for 2019
10-210-35511-00000	NO PARKING SIGN FEE	$500	Based on actual collections for 2017, 2016 and 2015
10-210-35654-00000	RESIDENTIAL PARKING PERMITS	$500	Based on actual collections in 2019
10-210-35655-00000	RESIDENTIAL HANDICAPPED PARKING	$2,500	Based on renewals of $10.00 and application fees of $50.00
10-210-36033-00000	CONTRIBUTIONS IN LIEU OF TAXES	$650,000	Payments from not for profit organizations. Includes $450,000.00 from Wellspan
10-210-39083-00000	GA REIMB-OTHER REIMB ADMIN	$141,000	$11,750.00 per month reimbursement to the City
10-210-39150-00000	TRANSFER FROM SEWER FUND	$3,466,009	Transferfrom Sewer Fund $2,625,711.61 and Indirect Costs 2020 $840,297.79
10-210-39160-00000	TRANSFER FROM IMSF	$675,299	Indirect Costs for 2020
40-210-30010-00000	REAL ESTATE TAXES	$1,397,655	1.5760 mils at 89% collection Assessed value as of August 7, 2019 $996,446,072
40-210-30020-00000	TAX CLAIM	$200,000	Contingent upon collections by the Tax Claim Bureau
40-210-34130-00000	PENSION - STATE AID	$2,100,000	Pension State Aid avgerage past 4 years
41-210-30010-00000	REAL ESTATE TAXES	$141,894	.16 mil at 89% collection Assessed value as of August 7, 2019 $996,446,072
41-210-30020-00000	TAX CLAIM	$20,000	Contingent upon collections by Tax Claim Bureau
44-210-37156-00000	CREDIT INTEREST PAYMENT(IRS)	$48,337	Per debt service schedule Federal subsidy
44-210-38091-00000	LEASES	$150,453	Family First $855.00 X 12 months=$10,260.00 Santander $8,982.25 X 6 months=$53,893.50 $9,162.39 X 6 months=$54,974.34 Total lease $108,867.84 City Departments $2,610.40 X 12=$31,324.80

2020 Proposed Budget

FINANCE

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2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Account	Description	2020 Proposed	Justification/Explanation
44-210-39090-00000	TRANSFER FROM GENERAL FUND	$72,800	Transfer to cover debt service
45-210-30010-00000	REAL ESTATE TAXES	$9,755	.0110 mil @ 89% collection Assessed value as of August 7, 2019 $996,446,072
45-210-30020-00000	TAX CLAIM	$4,500	Contingent upon collections by Tax Claim Bureau
45-210-39090-00000	TRANSFER FROM GENERAL FUND	$284,437	General Fund portion of 2017 Bond Issue
45-210-39100-00000	TRANSFER FROM RECREATION FUND	$33,660	Recreation Fund share of the 2017 Bond Issue
45-210-39150-00000	TRANSFER FROM SEWER FUND	$248,564	Sewer Fund share of 2017 Bond Issue
45-210-39199-00000	TRANSFER FROM 2001 ICE RINK BOND I	$101,678	Transfer from 2001 Ice Rink Bond Issue Sinking Fund (Prior Tax Claim Collections)
60-210-35290-00000	SEWER FEES	$8,847,890	Based on 92% collection of current bills.
60-210-35291-00000	SEWER FEES-PAST DUE	$2,000,000	Collection of passed due Sewer bills.
60-210-35292-00000	SEWER FEES-AMNESTY	$100,000	Funds from Amnesty Program
60-210-35350-00000	TAX & SEWER CERTIFICATION/COPY	$2,000	Sewer History reports @ 25.00 for full history and $5.00 for one year
60-210-35400-00019	DEBT SERVICE	$539,392	Manchester Township Based on 9.37% of total debt service (Includes proposed Series of 2019 debt servuce)
60-210-35400-00020	DEBT SERVICE	$117,434	North York Borough Based on 2.04% of total debt service(Includes proposed Series of 2019 debt service)
60-210-35400-00021	DEBT SERVICE	$666,613	Spring Garden Township Based on 11.58% of total debt service(indludes proposed Series of 2019 debt service)
60-210-35400-00022	DEBT SERVICE	$76,000	Per agreement Debt Service $76,000.00 annually
60-210-35400-00023	DEBT SERVICE	$748,357	West Manchester Township Based on 13% of total debt service(includes proposed Series of 2019 debt service)
60-210-35400-00024	DEBT SERVICE	$265,954	West York Borough based on 4.62% of total debt service(Includes proposed Series of 2019 debt service)
60-210-35400-00025	DEBT SERVICE	$744,327	York Township based on 12.93% of total debt service(Includes proposed Series of 2019 debt service)
60-210-35410-00022	CAPACITY SALE - SPRINGETTSBURY	$230,000	Per agreement Debt Service Capacity
61-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$46,500	3 year average
61-210-35380-00019	TREATMENT CHARGE	$975,132	New calculation as of 11/15/2019.
61-210-35380-00020	TREATMENT CHARGE	$131,363	New calculation as of 11/15/2019.
61-210-35380-00021	TREATMENT CHARGE	$1,073,344	New calculation as of 11/15/2019.
61-210-35380-00022	TREATMENT CHARGE	$43,842	New calculation as of 11/15/2019.
61-210-35380-00023	TREATMENT CHARGE	$976,106	New calculation as of 11/15/2019.
61-210-35380-00024	TREATMENT CHARGE	$889,714	New calculation as of 11/15/2019.
61-210-35380-00025	TREATMENT CHARGE	$1,035,977	New calculation as of 11/15/2019.
61-210-35380-00026	TREATMENT CHARGE	$2,941	New calculation as of 11/15/2019.

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2020 Proposed Budget

FINANCE

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Account	Description	2020 Proposed	Justification/Explanation
62-210-33010-00000	INVESTMENT/CASH MANAGEMENT INT	$30,000	Anticipated interest using three year average
			REQUESTED EXPENSES
10-210-40010-00000	SALARIES/WAGES	$136,885	Wages based on 2020 wage scale.
10-210-40030-00000	OVERTIME	$1,000	Base on 2020 wage scale.
10-210-40040-00000	SHIFT DIFFERENTIAL	$50	.
10-210-40150-00000	CONTINGENCY	$670,982	Total 2020 contingency fund
10-210-41010-00000	FICA	$10,552	7.65% of 2020 salaries.
10-210-41041-00000	UNFUNDED PENSION LIABILITY(EIT DI	$2,079,651	Special Tax collected (Earned Income Tax-Distressed Pension) to be used for funding the unfunded pension liability
10-210-42040-00000	AUDIT	$77,800	2019 Audit
10-210-42070-00000	OTHER PROFESSIONAL SERVICES	$312,820	Duff & Phelps 2017 & 2018 Fixed Asset Reports $9,300.00, Accountemps $8,239.81 July and August payments $10,400.00 estimated costs September-December (13 weeks @ $800), McKonly & Asbury Consulting Services $34,320.00 July and August payments $20,000.00 estimated costs September-December (4 months @ $5,000.00), 2018 Financials $91,500.00, $165,600 York Water
10-210-43150-00000	INTERFUND TRANSFER	$708,423	Transfers to 2011 Bond Issue Sinking Fund $78,732.43, 2017 Bond Issue Sinking Fund $ 281,685.78 and Recreation Fund $347,804.60.
10-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$16,448	Calculated: Internal Services
10-210-43191-00000	INFO SERVICES ALLOCATIONS	$15,917	Calculated: Internal Services
10-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$3,106	Calculated: Internal Services
10-210-43193-00000	INSURANCE ALLOCATIONS	$46,992	Calculated: Internal Services
10-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$20,211	Calculated: Internal Services
10-210-44020-00000	PRINTING/BINDING	$1,500	Misc Printing
10-210-44030-00000	ASSOCIATION DUES/CONFERENCES	$300	Dues & Conferences
40-210-43110-00000	TRUSTEE FEES	$1,500	Trustee Fees
40-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$4,190,000	Debt Service Payment due 2/1/20
41-210-43110-00000	TRUSTEE FEES	$1,000	Trustee Fees paid to banking institution for services.
41-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$160,000	Debt Service Payment due 12/1/20
42-210-43150-00000	Interfund Transfer	$101,678	Transfer from 2001 Ice Rink Bond Issue Sinking Fund (Tax Claim)
44-210-43110-00000	TRUSTEE FEES	$1,000	Trustee fees to manage payments to bond holders
44-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$125,550	According to Debt Service Schedule
44-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$145,000	Payment according to Debt Service Schedule
45-210-43110-00000	TRUSTEE FEES	$1,000	Trustee Fees

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2020 Proposed Budget

FINANCE

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Account	Description	2020 Proposed	Justification/Explanation
45-210-43120-00000	INTEREST EXPENSE-DEBT SERVICE	$672,035	Per debt service schedule
45-210-43130-00000	PRINCIPAL EXPENSE-DEBT SERVICE	$5,000	Per debt service schedule
60-210-40010-00000	SALARIES/WAGES	$90,452	Wages based on 2020 wage scale.
60-210-40030-00000	OVERTIME	$3,000	.
60-210-41010-00000	FICA	$7,149	7.65% of 2020 salaries.
60-210-42040-00000	AUDIT	$8,750	Portion of cost associated with the Sewer Fund for the 2019 audit
60-210-42070-00000	OTHER PROFESSIONAL SERVICES	$248,400	60% York Water Contract
60-210-42080-00000	COLLECTION FEES	$25,000	York Water Company shutoffs/postings
60-210-43090-00000	INDIRECT COSTS	$840,298	Indiirect Costs for 2020
60-210-43131-00000	SEWER LEASE/DEBT SERVICE	$5,756,590	Includes proposed Series of 2019 debt service payments $244,635.42(Includes 5% coverage lease payment)
60-210-43150-00000	INTERFUND TRANSFER	$2,874,276	$2,625,711.61 transfer to General Fund and $248,564.13 to 2017 Bond Issue Sinking Fund
60-210-43190-00000	CENTRAL SERVICES ALLOCATIONS	$2,975	Calculated: Internal Services
60-210-43191-00000	INFO SERVICES ALLOCATIONS	$10,413	Calculated: Internal Services
60-210-43192-00000	HUMAN RESOURCES ALLOCATIONS	$1,977	Calculated: Internal Services
60-210-43193-00000	INSURANCE ALLOCATIONS	$25,676	Calculated: Internal Services
60-210-43194-00000	BUSINESS ADMIN ALLOCATIONS	$12,861	Calculated: Internal Services
60-210-44170-00000	BUILDING RENT	$6,489	Building Rent for space at 101 S. George Street based on square footage and the number of employees charged to the Sewer Fund
60-210-44290-00000	TOWNSHIP SEWER AGREEMENT	$23,700	Per agreement for Pine Hill Farms
60-210-44300-00000	SEWER TREATMENT	$2,941,956	New calculation as of 11/15/2019.
61-210-42040-00000	AUDIT	$14,500	Intermunicipal Sewer Fund share of 2019 Audit
61-210-43090-00000	INDIRECT COSTS	$675,299	Indirect Costs for 2020

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2020 Proposed Budget

FINANCE

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Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Fund Total Report

Fund	Fund Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
10	GENERAL	**Revenue:**	$24,518,111	$24,808,127	$24,774,506	$25,436,107	$25,482,410
		Expense:	$1,545,614	$1,476,708	$4,471,722	$4,095,610	$4,102,636
20	RECREATION	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$13,113	$0	$61,411	$0	$0
40	1995 BISF	**Revenue:**	$4,194,928	$4,613,569	$4,197,831	$3,697,655	$3,697,655
		Expense:	$4,191,525	$4,191,500	$4,191,500	$4,191,500	$4,191,500
41	1998 BISF	**Revenue:**	$162,285	$157,595	$161,894	$161,894	$161,894
		Expense:	$161,100	$160,972	$161,000	$161,000	$161,000
42	2001 ICE RINK BISF	**Revenue:**	$0	$37,011	$0	$0	$0
		Expense:	$0	$0	$0	$101,678	$101,678
43	2002 BISF	**Revenue:**	$0	$296	$0	$0	$0
		Expense:	$0	$0	$0	$0	$0
44	2011 BISF	**Revenue:**	$273,700	$227,046	$271,589	$271,589	$271,589
		Expense:	$273,700	$272,700	$271,550	$271,550	$271,550
45	2017 BISF	**Revenue:**	$681,015	$685,346	$682,016	$682,594	$682,594
		Expense:	$678,235	$678,235	$678,035	$678,035	$678,035
60	SEWER	**Revenue:**	$14,956,691	$12,097,302	$12,259,100	$14,237,968	$14,337,968
		Expense:	$12,722,491	$12,801,108	$13,208,961	$12,943,338	$12,879,961
61	IMSF	**Revenue:**	$9,150,394	$9,132,065	$9,662,741	$8,184,773	$8,113,934
		Expense:	$795,195	$764,193	$906,838	$764,193	$689,799
62	SEWER TRANSPORTATION	**Revenue:**	$0	$98,638	$30,000	$30,000	$30,000
		Expense:	$0	$0	$0	$0	$0

2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$53,937,125**	2020 Request Total:	**$52,039,677**	2019 Budget Total:	**$20,384,261**	2020 Request Total:	**$23,961,231**
2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

70	INTERNAL SERVICES	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$3,287	$0	$10,213	$0	$0

Budget Request/L '/Proposed Report

2020 Proposed Budget

FINANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$53,937,125**	2020 Request Total:	**$52,039,677**	2019 Budget Total:	**$20,384,261**	2020 Request Total:	**$23,961,231**
2019 YTD Proj. Total:	**$51,856,995**	2020 Draft Total:	**$52,702,580**	2019 YTD Proj. Total:	**$20,345,417**	2020 Draft Total:	**$23,206,905**
Variance 2020 vs 2019:	**($1,159,081)**	2020 Proposed Total:	**$52,778,044**	Variance 2020 vs 2019:	**$2,691,898**	2020 Proposed Total:	**$23,076,159**

Cost Center Total Report

Cost Center	Cost Center Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
00000	NONE	**Revenue:**	$41,233,040	$39,674,306	$39,166,336	$41,176,229	$41,322,532
		Expense:	$20,384,261	$20,345,417	$23,961,231	$23,206,905	$23,076,159
00019	MANCHESTER TWP	**Revenue:**	$1,530,799	$1,424,253	$1,681,094	$1,523,086	$1,514,524
		Expense:	$0	$0	$0	$0	$0
00020	NORTH YORK BOROUGH	**Revenue:**	$260,728	$270,012	$267,262	$249,951	$248,797
		Expense:	$0	$0	$0	$0	$0
00021	SPRING GARDEN TWP	**Revenue:**	$1,852,548	$1,870,314	$1,851,263	$1,749,382	$1,739,957
		Expense:	$0	$0	$0	$0	$0
00022	SPRINGETTSBURY TWP	**Revenue:**	$860,367	$372,968	$360,139	$350,227	$349,842
		Expense:	$0	$0	$0	$0	$0
00023	WEST MANCHESTER TWP	**Revenue:**	$1,814,968	$1,855,372	$1,854,233	$1,733,034	$1,724,463
		Expense:	$0	$0	$0	$0	$0
00024	WEST YORK BOROUGH	**Revenue:**	$1,207,224	$1,186,316	$1,300,457	$1,163,480	$1,155,668
		Expense:	$0	$0	$0	$0	$0
00025	YORK TOWNSHIP	**Revenue:**	$1,879,236	$1,905,238	$1,966,586	$1,789,401	$1,780,304
		Expense:	$0	$0	$0	$0	$0
00026	YORK CITY	**Revenue:**	$3,298,215	$3,298,215	$3,592,306	$2,967,789	$2,941,956
		Expense:	$0	$0	$0	$0	$0

Finance

Position Title	Union	2019 FTE Approved	2019 Wages	2020 FTE Requested	2020 Wages	2020 27th Pay	Total 2020 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Deputy Business Administrator for Finance	NAFF	1	$78,630	1	$80,595	$3,100	$83,695	0	$5,066
Revenue Supervisor	NAFF	1	$50,737	1	$52,005	$2,000	$54,005	0	$3,269
Staff Accountant	NAFF	2	$100,000	2	$107,987	$4,153	$112,140	0	$12,140
Total		**4**	**$229,367**	**4**	**$240,587**	**$9,253**	**$249,840**	**0**	**$20,474**

Employee Totals		
NAFF		**4**
Full Time	4	
Total		**4**

Fund	
10	$159,388
60	$90,452
Grand Total	**$249,840**

Fund 10	-$22,503	40% of 1 Staff Accountant to Parking
	$227,337	

[redacted]

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
			REVENUE			
61-440-31250-00000	SEWAGE PERMITS	$7,000	$2,640	$0	$3,000	$3,000
61-440-39080-00000	EXPENSE REIMBURSEMENTS - OTHER	$0	$1,120	$0	$0	$0
Cost Center Total (NONE):		**$7,000**	**$3,760**	**$0**	**$3,000**	**$3,000**
61-440-37151-00003	ELECTRIC-DEMAND RESPONSE	$22,096	$37,150	$0	$40,000	$40,000
Cost Center Total (COGENERATION):		**$22,096**	**$37,150**	**$0**	**$40,000**	**$40,000**
Total Revenue:		**$29,096**	**$40,910**	**$0**	**$43,000**	**$43,000**
			EXPENSES			
61-440-40010-00000	SALARIES/WAGES	$1,616,964	$1,387,454	$1,698,649	$1,699,689	$1,754,304
61-440-40030-00000	OVERTIME	$200,000	$171,565	$180,000	$180,000	$180,000
61-440-40040-00000	SHIFT DIFFERENTIAL	$14,000	$10,581	$11,250	$11,250	$11,250
61-440-40110-00000	CALL BACK	$8,500	$2,698	$3,500	$3,500	$3,500
61-440-41010-00000	FICA	$138,998	$129,246	$144,880	$144,925	$149,103
61-440-41120-00000	LAUNDRY CLEANING	$20,000	$19,601	$19,000	$19,000	$19,000
61-440-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$7,500	$5,600	$6,800	$6,800	$6,800
61-440-41140-00000	TUITION REIMBURSEMENT	$1,000	$0	$0	$0	$0
61-440-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$125,000	$75,098	$100,000	$100,000	$100,000
61-440-42070-00000	OTHER PROFESSIONAL SERVICES	$100,000	$80,000	$100,000	$100,000	$100,000
61-440-43010-00000	TRAVEL	$3,000	$2,500	$2,500	$2,500	$2,500
61-440-43020-00000	TRAINING	$15,000	$19,953	$15,000	$15,000	$15,000
61-440-43140-00000	LOAN REPAYMENTS	$165,704	$165,704		$0	$0
61-440-43150-00000	INTERFUND TRANSFER	$20,580	$20,580		$20,580	$20,580
61-440-43190-00000	CENTRAL SERVICES ALLOCATIONS	$94,167	$94,167	$89,831	$87,170	$83,141
61-440-43191-00000	INFO SERVICES ALLOCATIONS	$92,415	$92,415	$110,374	$101,809	$100,410
61-440-43192-00000	HUMAN RESOURCES ALLOCATIONS	$43,060	$43,060	$44,482	$44,992	$45,179
61-440-43193-00000	INSURANCE ALLOCATIONS	$1,148,121	$1,148,121	$1,190,022	$1,115,227	$898,309
61-440-43194-00000	BUSINESS ADMIN ALLOCATIONS	$274,261	$274,261	$292,682	$293,651	$293,974
61-440-44010-00000	POSTAGE/SHIPPING	$20,000	$20,000	$20,000	$20,000	$20,000
61-440-44020-00000	PRINTING/BINDING	$100	$100	$100	$100	$100

Budget Request/Draft/Proposed Report

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
61-440-44030-00000	ASSOCIATION DUES/CONFERENCES	$2,000	$2,000	$2,000	$2,000	$2,000
61-440-44040-00000	ADVERTISING	$500	$0		$500	$500
61-440-44180-00000	VEHICLE/EQUIPMENT RENTAL	$7,000	$6,892	$5,000	$5,000	$5,000
61-440-44190-00000	BUILDING REPAIR SERVICE	$130,000	$160,000	$150,000	$150,000	$150,000
61-440-44200-00000	VEHICLE REPAIR SERVICE	$5,000	$12,322	$7,500	$7,500	$7,500
61-440-44210-00000	OTHER REPAIR SERVICE	$100,000	$100,000	$100,000	$100,000	$100,000
61-440-44230-00000	LABORATORY FEES	$50,000	$50,000	$50,000	$50,000	$50,000
61-440-44260-00000	REFUSE DISPOSAL	$800	$750	$750	$750	$750
61-440-44270-00000	COUNTY LANDFILL	$20,000	$15,000	$15,000	$15,000	$15,000
61-440-44310-00000	RADIO COMMUNICATIONS	$5,000	$3,000	$3,000	$3,000	$3,000
61-440-44400-00000	OTHER CONTRACTUAL SERVICES	$800,000	$1,241,681	$825,000	$595,000	$595,000
61-440-44411-00000	WWTP PROCESS IMPROVEMENTS	$250,000	$212,015	$200,000	$200,000	$200,000
61-440-45030-00000	HORTICULTURAL SUPPLIES/MATERIA	$2,500	$2,500	$2,500	$2,500	$2,500
61-440-45040-00000	ELECTRICAL SUPPLIES	$75,000	$93,281	$60,000	$60,000	$60,000
61-440-45060-00000	PAINT & SUPPLIES	$200	$200	$200	$200	$200
61-440-45100-00000	PLUMBING SUPPLIES	$5,000	$5,532	$5,000	$5,000	$5,000
61-440-45110-00000	MEDICAL SUPPLIES	$2,250	$2,176	$1,500	$1,500	$1,500
61-440-45120-00000	VEHICLE PARTS/ACCESSORIES	$7,000	$7,000	$6,500	$6,500	$6,500
61-440-45130-00000	VEHICLE FUELS	$8,000	$8,000	$8,000	$8,000	$8,000
61-440-45140-00000	LUMBER/HARDWARE/BLDG ALTERATIO	$2,000	$2,000	$2,000	$2,000	$2,000
61-440-45150-00000	STREET/HIGHWAY MATERIAL	$4,000	$0	$2,500	$2,500	$2,500
61-440-45160-00000	SIGNS	$500	$0	$500	$500	$500
61-440-45170-00000	TOOLS	$7,000	$4,832	$10,000	$7,000	$7,000
61-440-45200-00000	CEMENT/CONCRETE/STONE	$750	$657	$750	$750	$750
61-440-45210-00000	CHEMICALS	$100,000	$74,291	$85,000	$85,000	$85,000
61-440-45260-00000	LABORATORY SUPPLIES	$40,000	$30,000	$38,000	$30,000	$30,000
61-440-45280-00000	MACHINERY SUPPLIES	$375,000	$344,737	$325,000	$325,000	$325,000
61-440-45300-00000	OTHER SUPPLIES/MATERIALS	$50,000	$29,912		$50,000	$50,000
61-440-45310-00000	COPIER/FAX SUPPLIES	$1,000	$470	$500	$500	$500
61-440-46101-00000	VEHICLE/LEASE PURCHASE	$12,600	$12,600	$12,600	$12,600	$12,600
61-440-46120-00000	DATA PROCESSING EQUIPMENT	$30,000	$27,000	$27,000	$27,000	$27,000
61-440-46121-00000	CAPITAL - DP SOFTWARE	$150,000	$135,000	$135,000	$135,000	$135,000
61-440-46140-00000	LABORATORY EQUIPMENT	$30,000	$30,000	$30,000	$30,000	$30,000
61-440-46150-00000	PARKS/RECREATION EQUIPMENT	$1,000	$1,000	$1,000	$1,000	$1,000
61-440-46160-00000	SHOP MACHINERY EQUIPMENT	$1,000	$1,000	$1,000	$1,000	$1,000
61-440-4617[illegible]00	OTHER CAPITAL EQUIPMENT	$1[illegible]	$10,000	$15,000	$15,000	$15,000

Budget Request/A /Proposed Report

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
Cost Center Total (NONE):		**$6,398,469**	**$6,388,550**	**$6,156,870**	**$5,903,493**	**$5,740,449**
61-440-42010-00001	ARCHITECT/ENGINEER/CONSULTANT	$75,000	$29,000	$50,000	$30,000	$30,000
Cost Center Total (WESTINGHOUSE):		**$75,000**	**$29,000**	**$50,000**	**$30,000**	**$30,000**
61-440-44210-00002	OTHER REPAIR SERVICE	$8,000	$8,000	$8,000	$8,000	$8,000
61-440-44220-00002	SLUDGE DISPOSAL	$425,000	$413,036	$400,000	$400,000	$400,000
61-440-45220-00002	POLYMER	$185,000	$246,667	$260,000	$260,000	$260,000
61-440-45280-00002	MACHINERY SUPPLIES	$70,000	$42,940	$50,000	$50,000	$50,000
61-440-45300-00002	OTHER SUPPLIES/MATERIALS	$18,500	$18,500	$27,000	$20,000	$20,000
Cost Center Total (SLUDGE DISPOSAL):		**$706,500**	**$729,143**	**$745,000**	**$738,000**	**$738,000**
61-440-44210-00003	OTHER REPAIR SERVICE	$3,000	$3,000	$3,000	$3,000	$3,000
61-440-44400-00003	OTHER CONTRACTUAL SERVICES	$110,000	$0	$110,000	$110,000	$110,000
61-440-45040-00003	ELECTRICAL SUPPLIES	$500	$0	$500	$500	$500
61-440-45280-00003	MACHINERY SUPPLIES	$15,000	$0	$5,000	$5,000	$5,000
Cost Center Total (COGENERATION):		**$128,500**	**$3,000**	**$118,500**	**$118,500**	**$118,500**
Total Expenses:		**$7,308,469**	**$7,149,693**	**$7,070,370**	**$6,789,993**	**$6,626,949**

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2019 YTD Projected	Explanation
		PROJECTED REVENUE	
61-440-31250-00000	SEWAGE PERMITS	$2,640	2019 Projection
61-440-37151-00003	ELECTRIC-DEMAND RESPONSE	$37,150	2019 Projection
61-440-39080-00000	EXPENSE REIMBURSEMENTS - OTHER	$1,120	
		PROJECTED EXPENSES	
61-440-40010-00000	SALARIES/WAGES	$1,387,454	Projection based on current 2019 wage scale.
61-440-40030-00000	OVERTIME	$171,565	Projection based on current 2019 wage scale.
61-440-40040-00000	SHIFT DIFFERENTIAL	$10,581	Projection based on current 2019 wage scale
61-440-40110-00000	CALL BACK	$2,698	Projection based on current 2019 wage scale.
61-440-41010-00000	FICA	$129,246	7.65% of 2019 salaries.
61-440-41120-00000	LAUNDRY CLEANING	$19,601	Will try to adjust usage to new budget expectations
61-440-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$5,600	Adjust to new budget. Will need to drill down specifiics of charging this account.
61-440-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$75,098	Engineering work to be done by contractors.
61-440-42010-00001	ARCHITECT/ENGINEER/CONSULTANT	$29,000	Digestor project at the WWTP.
61-440-42070-00000	OTHER PROFESSIONAL SERVICES	$80,000	Professional services used for effective water processing.
61-440-43010-00000	TRAVEL	$2,500	Planned usage
61-440-43020-00000	TRAINING	$19,953	Training for WWTP staff.
61-440-43140-00000	LOAN REPAYMENTS	$165,704	Balanve 2019
61-440-43150-00000	INTERFUND TRANSFER	$20,580	2019 expenses
61-440-43190-00000	CENTRAL SERVICES ALLOCATIONS	$94,167	Calculated: Internal Services
61-440-43191-00000	INFO SERVICES ALLOCATIONS	$92,415	Calculated: Internal Services
61-440-43192-00000	HUMAN RESOURCES ALLOCATIONS	$43,060	Calculated: Internal Services
61-440-43193-00000	INSURANCE ALLOCATIONS	$1,148,121	Calculated: Internal Services
61-440-43194-00000	BUSINESS ADMIN ALLOCATIONS	$274,261	Calculated: Internal Services
61-440-44010-00000	POSTAGE/SHIPPING	$20,000	Projected usage
61-440-44020-00000	PRINTING/BINDING	$100	Informational literature for kids that tour the plant.
61-440-44030-00000	ASSOCIATION DUES/CONFERENCES	$2,000	Planned usage.
61-440-44180-00000	VEHICLE/EQUIPMENT RENTAL	$6,892	Rental equipment for the completion of projects.
61-440-44190-00000	BUILDING REPAIR SERVICE	$160,000	This line item is used during unscheduled emergency building repairs
61-440-44200-00000	VEHICLE REPAIR SERVICE	$12,322	Service of vehicles at the WWTP.
61-440-44210-00000	OTHER REPAIR SERVICE	$100,000	Urgent repair of AC at PSPS to protect newly install VFDs
61-440-4421[illegible]02	OTHER REPAIR SERVICE	$[illegible]	planned usage

Budget Request/I '/Proposed Report

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2019 YTD Projected	Explanation
61-440-44210-00003	OTHER REPAIR SERVICE	$3,000	planned usage
61-440-44220-00002	SLUDGE DISPOSAL	$413,036	Sludge Disposal.
61-440-44230-00000	LABORATORY FEES	$50,000	Regulatory Analysis & mandated preventative maintenance agreements required during remainder of calendar year.
61-440-44260-00000	REFUSE DISPOSAL	$750	projected usage
61-440-44270-00000	COUNTY LANDFILL	$15,000	Planned usage
61-440-44310-00000	RADIO COMMUNICATIONS	$3,000	Planned usage
61-440-44400-00000	OTHER CONTRACTUAL SERVICES	$1,241,681	Used to complete capital projects with the Sewer Authority
61-440-44411-00000	WWTP PROCESS IMPROVEMENTS	$212,015	WWTP process improvements.
61-440-45030-00000	HORTICULTURAL SUPPLIES/MATERIA	$2,500	Post construction repairs to landscaping.
61-440-45040-00000	ELECTRICAL SUPPLIES	$93,281	Used to replace motors, pumps, controllers and monitors.
61-440-45060-00000	PAINT & SUPPLIES	$200	Paint used for jobs at the WWTP.
61-440-45100-00000	PLUMBING SUPPLIES	$5,532	Pipes, water hoses and valves used at the WWTP.
61-440-45110-00000	MEDICAL SUPPLIES	$2,176	Supplies used for medical treatment.
61-440-45120-00000	VEHICLE PARTS/ACCESSORIES	$7,000	Replace vehicle parts in WWTP vehicles and equipment.
61-440-45130-00000	VEHICLE FUELS	$8,000	Fuel for WWTP vehicles.
61-440-45140-00000	LUMBER/HARDWARE/BLDG ALTERATIO	$2,000	Hardware projects at the WWTP.
61-440-45170-00000	TOOLS	$4,832	We are currently in need to acquire tools for the shop area.
61-440-45200-00000	CEMENT/CONCRETE/STONE	$657	Concrete repairs at the WWTP.
61-440-45210-00000	CHEMICALS	$74,291	Projected usage
61-440-45220-00002	POLYMER	$246,667	Purchase polymer.
61-440-45260-00000	LABORATORY SUPPLIES	$30,000	Projected usage.
61-440-45280-00000	MACHINERY SUPPLIES	$344,737	Supplies for machinery at the WWTP.
61-440-45280-00002	MACHINERY SUPPLIES	$42,940	Purchase supplies for machinery.
61-440-45300-00000	OTHER SUPPLIES/MATERIALS	$29,912	
61-440-45300-00002	OTHER SUPPLIES/MATERIALS	$18,500	Supplies used for process control.
61-440-45310-00000	COPIER/FAX SUPPLIES	$470	Copier and Fax machine supplies.
61-440-46101-00000	VEHICLE/LEASE PURCHASE	$12,600	Continued payments of vehicle leases at the WWTP.
61-440-46120-00000	DATA PROCESSING EQUIPMENT	$27,000	Planned usage for SCADA
61-440-46121-00000	CAPITAL - DP SOFTWARE	$135,000	Planned usage for Software
61-440-46140-00000	LABORATORY EQUIPMENT	$30,000	Projected replacements.
61-440-46150-00000	PARKS/RECREATION EQUIPMENT	$1,000	Repairs for landscape equipment used from the Parks Dept for the WWTP.
61-440-46160-00000	SHOP MACHINERY EQUIPMENT	$1,000	Shop machinery equipment.
61-440-46170-00000	OTHER CAPITAL EQUIPMENT	$10,000	Joint projects with the Sewer Authority.

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2020 Proposed	Justification/Explanation
61-440-31250-00000	SEWAGE PERMITS	$3,000	2020 Budget
61-440-37151-00003	ELECTRIC-DEMAND RESPONSE	$40,000	2020 Budget
		REQUESTED EXPENSES	
61-440-40010-00000	SALARIES/WAGES	$1,754,304	Wages based on 2020 wage scale.
61-440-40030-00000	OVERTIME	$180,000	Based on 2020 wage scale
61-440-40040-00000	SHIFT DIFFERENTIAL	$11,250	Based on 2020 wage scale
61-440-40110-00000	CALL BACK	$3,500	based on 2020 wage scale
61-440-41010-00000	FICA	$149,103	7.65% of 2020 salaries
61-440-41120-00000	LAUNDRY CLEANING	$19,000	Reduced by 5%. Condition dependant on price adjustment from vendor.
61-440-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$6,800	10% reduction
61-440-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$100,000	Engineering work to be provided by contractors.
61-440-42010-00001	ARCHITECT/ENGINEER/CONSULTANT	$30,000	Reductions.
61-440-42070-00000	OTHER PROFESSIONAL SERVICES	$100,000	Professional services used for effective water processing.
61-440-43010-00000	TRAVEL	$2,500	Reduction
61-440-43020-00000	TRAINING	$15,000	Training for WWTP staff.
61-440-43150-00000	INTERFUND TRANSFER	$20,580	Vechicle leases
61-440-43190-00000	CENTRAL SERVICES ALLOCATIONS	$83,141	Calculated: Internal Services
61-440-43191-00000	INFO SERVICES ALLOCATIONS	$100,410	Calculated: Internal Services
61-440-43192-00000	HUMAN RESOURCES ALLOCATIONS	$45,179	Calculated: Internal Services
61-440-43193-00000	INSURANCE ALLOCATIONS	$898,309	Calculated: Internal Services
61-440-43194-00000	BUSINESS ADMIN ALLOCATIONS	$293,974	Calculated: Internal Services
61-440-44010-00000	POSTAGE/SHIPPING	$20,000	No change due to increased freight/shipping charges
61-440-44020-00000	PRINTING/BINDING	$100	Informational literature for kids that tour the plant.
61-440-44030-00000	ASSOCIATION DUES/CONFERENCES	$2,000	No change
61-440-44040-00000	ADVERTISING	$500	Advertising for RFP's
61-440-44180-00000	VEHICLE/EQUIPMENT RENTAL	$5,000	Rental equipment for the completion of projects.
61-440-44190-00000	BUILDING REPAIR SERVICE	$150,000	Repair of air conditioning unit for primary pump station. This repair will help protect vital equipment in the plant.
61-440-44200-00000	VEHICLE REPAIR SERVICE	$7,500	Service of vehicles at the WWTP.
61-440-44210-00000	OTHER REPAIR SERVICE	$100,000	no change
61-440-44210-00002	OTHER REPAIR SERVICE	$8,000	no change
61-440-44210-00003	OTHER REPAIR SERVICE	$3,000	no change
61-440-44220-00002	SLUDGE DISPOSAL	$400,000	Sludge Disposal

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2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2020 Proposed	Justification/Explanation
61-440-44230-00000	LABORATORY FEES	$50,000	No change due to increased regulatory analysis requirements.
61-440-44260-00000	REFUSE DISPOSAL	$750	Reduction
61-440-44270-00000	COUNTY LANDFILL	$15,000	Reduction
61-440-44310-00000	RADIO COMMUNICATIONS	$3,000	Reduction
61-440-44400-00000	OTHER CONTRACTUAL SERVICES	$595,000	$465,000.00 used to complete capital projects with the Sewer Authority. $130,000.00 CSI Services Inc. Transfered from 61-442-44400-00000
61-440-44400-00003	OTHER CONTRACTUAL SERVICES	$110,000	Project moved from 2019
61-440-44411-00000	WWTP PROCESS IMPROVEMENTS	$200,000	WWTP process improvements.
61-440-45030-00000	HORTICULTURAL SUPPLIES/MATERIA	$2,500	No change. Post construction repairs to landscaping.
61-440-45040-00000	ELECTRICAL SUPPLIES	$60,000	Used to replace motors, pumps, controllers and monitors.
61-440-45040-00003	ELECTRICAL SUPPLIES	$500	Project moved from 2019
61-440-45060-00000	PAINT & SUPPLIES	$200	Paint used for jobs at the WWTP.
61-440-45100-00000	PLUMBING SUPPLIES	$5,000	Pipes, water hoses and valves used at the WWTP.
61-440-45110-00000	MEDICAL SUPPLIES	$1,500	Supplies used for medical treatment.
61-440-45120-00000	VEHICLE PARTS/ACCESSORIES	$6,500	Replace vehicle parts in WWTP vehicles and equipment.
61-440-45130-00000	VEHICLE FUELS	$8,000	Fuel for WWTP vehicles.
61-440-45140-00000	LUMBER/HARDWARE/BLDG ALTERATIO	$2,000	Hardware projects at the WWTP.
61-440-45150-00000	STREET/HIGHWAY MATERIAL	$2,500	Road repairs at the WWTP.
61-440-45160-00000	SIGNS	$500	Signs for WWTP
61-440-45170-00000	TOOLS	$7,000	Increase budget line to acquire needed tools and replace defective ones.
61-440-45200-00000	CEMENT/CONCRETE/STONE	$750	Concrete repairs at the WWTP.
61-440-45210-00000	CHEMICALS	$85,000	Based on recent historical usage & projected future process requirements.
61-440-45220-00002	POLYMER	$260,000	Purchase polymer
61-440-45260-00000	LABORATORY SUPPLIES	$30,000	Reduction
61-440-45280-00000	MACHINERY SUPPLIES	$325,000	Supplies for machinery at the WWTP.
61-440-45280-00002	MACHINERY SUPPLIES	$50,000	Purchase supplies for machinery.
61-440-45280-00003	MACHINERY SUPPLIES	$5,000	Project moved from 2019
61-440-45300-00000	OTHER SUPPLIES/MATERIALS	$50,000	2020 Budget
61-440-45300-00002	OTHER SUPPLIES/MATERIALS	$20,000	Supplies used for process control.
61-440-45310-00000	COPIER/FAX SUPPLIES	$500	Copier and Fax machine supplies.
61-440-46101-00000	VEHICLE/LEASE PURCHASE	$12,600	Continued payments of vehicle leases at the WWTP.
61-440-46120-00000	DATA PROCESSING EQUIPMENT	$27,000	Reduction
61-440-46121-00000	CAPITAL - DP SOFTWARE	$135,000	Reduction

2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Account	Description	2020 Proposed	Justification/Explanation
61-440-46140-00000	LABORATORY EQUIPMENT	$30,000	Projected replacement of lab equipment (may need to be increased in upcoming years due to aging equipment, and previous cuts).
61-440-46150-00000	PARKS/RECREATION EQUIPMENT	$1,000	Repairs for landscape equipment used from the Parks Dept for the WWTP.
61-440-46160-00000	SHOP MACHINERY EQUIPMENT	$1,000	Shop machinery equipment.
61-440-46170-00000	OTHER CAPITAL EQUIPMENT	$15,000	Joint projects with the Sewer Authority.

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2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Fund Total Report

Fund	Fund Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
61	IMSF	**Revenue:**	$29,096	$40,910	$0	$43,000	$43,000
		Expense:	$7,308,469	$7,149,693	$7,070,370	$6,789,993	$6,626,949

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2020 Proposed Budget

WWTP

Total Revenue				Total Expenses			
2019 Budget Total:	**$29,096**	2020 Request Total:	**$0**	2019 Budget Total:	**$7,308,469**	2020 Request Total:	**$7,070,370**
2019 YTD Proj. Total:	**$40,910**	2020 Draft Total:	**$43,000**	2019 YTD Proj. Total:	**$7,149,693**	2020 Draft Total:	**$6,789,993**
Variance 2020 vs 2019:	**$13,904**	2020 Proposed Total:	**$43,000**	Variance 2020 vs 2019:	**($681,519)**	2020 Proposed Total:	**$6,626,949**

Cost Center Total Report

Cost Center	Cost Center Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
00000	NONE	**Revenue:**	$7,000	$3,760	$0	$3,000	$3,000
		Expense:	$6,398,469	$6,388,550	$6,156,870	$5,903,493	$5,740,449
00001	WESTINGHOUSE	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$75,000	$29,000	$50,000	$30,000	$30,000
00002	SLUDGE DISPOSAL	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$706,500	$729,143	$745,000	$738,000	$738,000
00003	COGENERATION	**Revenue:**	$22,096	$37,150	$0	$40,000	$40,000
		Expense:	$128,500	$3,000	$118,500	$118,500	$118,500

WWTP

Position Title	Union	2019 FTE Approved	2019 Wages	2020 FTE Requested	2020 Wages	2020 27th Pay	Total 2020 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Wastewater Treatment Plant General Manager	NAFF	1	$88,937	1	$91,161	$3,506	$94,667	0	$5,730
Wastewater Treatment Plant Operations Manager	NAFF	1	$61,500	1	$64,613	$2,485	$67,098	0	$5,599
Wastewater Treatment Plant Operations Shift Supervisor	NAFF	3	$156,146	3	$159,564	$6,137	$165,702	0	$9,556
Wastewater Treatment Plant Maintenance Supervisor	NAFF	1	$54,388	1	$55,752	$2,144	$57,896	0	$3,508
Plant Operator II	TEAM	14	$681,117	14	$719,089	$27,657	$746,746	0	$65,630
Maintenance Mechanic II	TEAM	6	$281,424	6	$297,113	$11,427	$308,541	0	$27,117
Senior Chemist	NAFF	1	$59,003	1	$60,478	$2,326	$62,804	0	$3,801
Chemist	NAFF	3	$153,217	3	$158,344	$6,090	$164,434	0	$11,216
Administrative Assistant	NAFF	0	$0	1	$40,956	$1,575	$42,531	1	$42,531
Data Entry Clerk	YPEA	1	$40,261	1	$42,256	$1,628	$43,884	0	$3,623
Total		**31**	**$1,575,994**	**32**	**$1,689,327**	**$64,977**	**$1,754,304**	**1**	**$178,310**

Employee Totals		
NAFF		**11**
Full Time	11	
TEAM		**20**
Full Time	20	
YPEA		**1**
Full Time	1	
Total		**32**

Fund	
61	$1,754,304
Grand Total	**$1,754,304**

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2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
		REVENUE				
61-441-35430-00000	MIPP SAMPLE/ANALYTICAL FEE	$45,000	$44,213	$45,000	$45,000	$45,000
61-441-35630-00000	SURCHARGE	$460,000	$629,588	$550,000	$550,000	$550,000
Cost Center Total (NONE):		**$505,000**	**$673,801**	**$595,000**	**$595,000**	**$595,000**
Total Revenue:		**$505,000**	**$673,801**	**$595,000**	**$595,000**	**$595,000**
		EXPENSES				
61-441-40010-00000	SALARIES/WAGES	$106,055	$59,440	$112,885	$112,885	$112,885
61-441-40030-00000	OVERTIME	$2,500	$1,534	$1,750	$1,750	$1,750
61-441-41010-00000	FICA	$8,304	$5,126	$8,769	$8,770	$8,770
61-441-41140-00000	TUITION REIMBURSEMENT	$1,000	$0	$0	$0	$0
61-441-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$20,000	$3,000	$10,000	$5,000	$5,000
61-441-43020-00000	TRAINING	$2,000	$500	$1,800	$1,000	$1,000
61-441-43190-00000	CENTRAL SERVICES ALLOCATIONS	$12,679	$12,679	$12,250	$12,084	$11,832
61-441-43191-00000	INFO SERVICES ALLOCATIONS	$6,572	$6,572	$7,849	$7,240	$7,140
61-441-43192-00000	HUMAN RESOURCES ALLOCATIONS	$2,691	$2,691	$2,780	$2,812	$2,824
61-441-43193-00000	INSURANCE ALLOCATIONS	$33,094	$33,094	$54,935	$52,561	$41,213
61-441-43194-00000	BUSINESS ADMIN ALLOCATIONS	$17,141	$17,141	$18,293	$18,353	$18,373
61-441-44010-00000	POSTAGE/SHIPPING	$500	$300	$400	$400	$400
61-441-44030-00000	ASSOCIATION DUES/CONFERENCES	$750	$425	$700	$700	$700
61-441-44040-00000	ADVERTISING	$1,000	$426	$1,000	$1,000	$1,000
61-441-44190-00000	BUILDING REPAIR SERVICE	$1,500	$0	$300	$300	$300
61-441-44200-00000	VEHICLE REPAIR SERVICE	$700	$200	$500	$500	$500
61-441-44230-00000	LABORATORY FEES	$14,000	$4,488	$10,000	$7,500	$7,500
61-441-44400-00000	OTHER CONTRACTUAL SERVICES	$2,500	$854	$2,000	$1,500	$1,500
61-441-45120-00000	VEHICLE PARTS/ACCESSORIES	$1,000	$350	$350	$350	$350
61-441-45130-00000	VEHICLE FUELS	$1,750	$462	$1,500	$1,000	$1,000
61-441-45260-00000	LABORATORY SUPPLIES	$5,000	$4,500	$4,000	$4,000	$4,000
61-441-45300-00000	OTHER SUPPLIES/MATERIALS	$700	$312	$665	$665	$665
61-441-46101-00000	VEHICLE/LEASE PURCHASE	$5,600	$5,390	$5,390	$5,390	$5,390
61-441-46120-00000	DATA PROCESSING EQUIPMENT	$7,000	$5,585	$5,585	$5,585	$5,585
61-441-46140-00000	LABORATORY EQUIPMENT	$5,000	$4,000	$4,750	$4,750	$4,750

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2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
Cost Center Total (NONE):		**$259,038**	**$169,070**	**$268,451**	**$256,095**	**$244,428**
Total Expenses:		**$259,038**	**$169,070**	**$268,451**	**$256,095**	**$244,428**

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2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Account	Description	2019 YTD Projected	Explanation
		PROJECTED REVENUE	
61-441-35430-00000	MIPP SAMPLE/ANALYTICAL FEE	$44,213	Fees for sampling and inspection activities and analysis of industrial samples.
61-441-35630-00000	SURCHARGE	$629,588	Recoupment of industrial wastwater treatment costs.
		PROJECTED EXPENSES	
61-441-40010-00000	SALARIES/WAGES	$59,440	Projection based on current 2019 wage scale.
61-441-40030-00000	OVERTIME	$1,534	Projection based on current 2019 wage scale
61-441-41010-00000	FICA	$5,126	7.65% of 2019 salaries.
61-441-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$3,000	Estimated based on potential US Environmental Protection Agency comments on draft plan
61-441-43020-00000	TRAINING	$500	fall training expected
61-441-43190-00000	CENTRAL SERVICES ALLOCATIONS	$12,679	Calculated: Internal Services
61-441-43191-00000	INFO SERVICES ALLOCATIONS	$6,572	Calculated: Internal Services
61-441-43192-00000	HUMAN RESOURCES ALLOCATIONS	$2,691	Calculated: Internal Services
61-441-43193-00000	INSURANCE ALLOCATIONS	$33,094	Calculated: Internal Services
61-441-43194-00000	BUSINESS ADMIN ALLOCATIONS	$17,141	Calculated: Internal Services
61-441-44010-00000	POSTAGE/SHIPPING	$300	recent ordering not yet showing in system
61-441-44030-00000	ASSOCIATION DUES/CONFERENCES	$425	training expected.
61-441-44040-00000	ADVERTISING	$426	no further advertising expected in the remainder of the year
61-441-44200-00000	VEHICLE REPAIR SERVICE	$200	inspection and minor part replacement
61-441-44230-00000	LABORATORY FEES	$4,488	projected due to new industry discharges
61-441-44400-00000	OTHER CONTRACTUAL SERVICES	$854	consultant asistance with items regarding pretreatment
61-441-45120-00000	VEHICLE PARTS/ACCESSORIES	$350	parts for MIPP vehicle
61-441-45130-00000	VEHICLE FUELS	$462	year end projected fuel costs
61-441-45260-00000	LABORATORY SUPPLIES	$4,500	estimated: recent orders not showing in system yet
61-441-45300-00000	OTHER SUPPLIES/MATERIALS	$312	orders pending for safety equipment/supplies and forms
61-441-46101-00000	VEHICLE/LEASE PURCHASE	$5,390	lease payment for MIPP
61-441-46120-00000	DATA PROCESSING EQUIPMENT	$5,585	Linko to be invoiced yet this year
61-441-46140-00000	LABORATORY EQUIPMENT	$4,000	recent ordering not yet reflected in system

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2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Account	Description	2020 Proposed	Justification/Explanation
		REQUESTED REVENUE	
61-441-35430-00000	MIPP SAMPLE/ANALYTICAL FEE	$45,000	Fees for sampling and inspection activities and analysis of industrial samples.
61-441-35630-00000	SURCHARGE	$550,000	Recoupment of industrial wastwater treatment costs.
		REQUESTED EXPENSES	
61-441-40010-00000	SALARIES/WAGES	$112,885	Wages based on 2020 wage scale.
61-441-40030-00000	OVERTIME	$1,750	Based on 2020 wage scale
61-441-41010-00000	FICA	$8,770	7.65% of 2020 salaries.
61-441-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$5,000	Balance from project
61-441-43020-00000	TRAINING	$1,000	2020 training
61-441-43190-00000	CENTRAL SERVICES ALLOCATIONS	$11,832	Calculated: Internal Services
61-441-43191-00000	INFO SERVICES ALLOCATIONS	$7,140	Calculated: Internal Services
61-441-43192-00000	HUMAN RESOURCES ALLOCATIONS	$2,824	Calculated: Internal Services
61-441-43193-00000	INSURANCE ALLOCATIONS	$41,213	Calculated: Internal Services
61-441-43194-00000	BUSINESS ADMIN ALLOCATIONS	$18,373	Calculated: Internal Services
61-441-44010-00000	POSTAGE/SHIPPING	$400	adjusted shipping cost based on history and expected fuel increases
61-441-44030-00000	ASSOCIATION DUES/CONFERENCES	$700	Pretreatment conference, PA Water Environment Assoc, Central PA Water Quality Assoc, Water Enviroment Federation dues.
61-441-44040-00000	ADVERTISING	$1,000	expected cost. No reduction possible in this line item due to legal requirements for pretreatment public notices
61-441-44190-00000	BUILDING REPAIR SERVICE	$300	no monies expended since 2009. adjusted to reflect potential minor repairs to MIPP office area
61-441-44200-00000	VEHICLE REPAIR SERVICE	$500	adjusted to reflect repair history. However, this unit will need to be replaced (or transmission replaced) within 3 years
61-441-44230-00000	LABORATORY FEES	$7,500	pretreatment local limits review sampling not expected to occur
61-441-44400-00000	OTHER CONTRACTUAL SERVICES	$1,500	consultant asistance with items regarding pretreatment
61-441-45120-00000	VEHICLE PARTS/ACCESSORIES	$350	parts for MIPP vehicle
61-441-45130-00000	VEHICLE FUELS	$1,000	expected based on existing consumption with a hike in fuel prices
61-441-45260-00000	LABORATORY SUPPLIES	$4,000	adjusted based on usage; frequent expendable supplies for regulatory compliance i.e, bottles, caps, buffer solutions, tubing, etc.
61-441-45300-00000	OTHER SUPPLIES/MATERIALS	$665	5% reduction, and historic use of safety equipment/supplies and forms
61-441-46101-00000	VEHICLE/LEASE PURCHASE	$5,390	vehicle lease obligation for MIPP, no reduction

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2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Account	Description	2020 Proposed	Justification/Explanation
61-441-46120-00000	DATA PROCESSING EQUIPMENT	$5,585	price quote for yearly cloud-based Linko software and support. Software required for compliance and lab data sharing
61-441-46140-00000	LABORATORY EQUIPMENT	$4,750	sampling and monitoring equipment purchases for regulatory compliance: samplers, pH meters, probes, field equipment (pullers, flashlights, rope, etc.)

Budget Request ıft/Proposed Report

2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Fund Total Report

Fund	Fund Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
61	IMSF	**Revenue:**	$505,000	$673,801	$595,000	$595,000	$595,000
		Expense:	$259,038	$169,070	$268,451	$256,095	$244,428

Budget Request/L '/Proposed Report

2020 Proposed Budget

MIPP

Total Revenue				Total Expenses			
2019 Budget Total:	**$505,000**	2020 Request Total:	**$595,000**	2019 Budget Total:	**$259,038**	2020 Request Total:	**$268,451**
2019 YTD Proj. Total:	**$673,801**	2020 Draft Total:	**$595,000**	2019 YTD Proj. Total:	**$169,070**	2020 Draft Total:	**$256,095**
Variance 2020 vs 2019:	**$90,000**	2020 Proposed Total:	**$595,000**	Variance 2020 vs 2019:	**($14,610)**	2020 Proposed Total:	**$244,428**

Cost Center Total Report

Cost Center	Cost Center Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
00000	NONE	**Revenue:**	$505,000	$673,801	$595,000	$595,000	$595,000
		Expense:	$259,038	$169,070	$268,451	$256,095	$244,428

MIPP

Position Title	Union	2019 FTE Approved	2019 Wages	2020 FTE Requested	2020 Wages	2020 27th Pay	Total 2020 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Pretreatment Permit/Compliance Manager	NAFF	1	$59,215	1	$60,698	$2,335	$63,033	0	$3,817
Compliance Officer II	NAFF	1	$46,840	1	$48,006	$1,847	$49,853	0	$3,013
Total		**2**	**$106,055**	**2**	**$108,704**	**$4,181**	**$112,885**	**0**	**$6,830**

Employee Totals		
NAFF		**2**
Full Time	2	
Total		**2**

Fund	
61	$112,885
Grand Total	**$112,885**

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$0**	2020 Request Total:		2019 Budget Total:	**$2,019,295**	2020 Request Total:	**$1,952,701**
2019 YTD Proj. Total:	**$0**	2020 Draft Total:	**$0**	2019 YTD Proj. Total:	**$3,688,927**	2020 Draft Total:	**$1,789,393**
Variance 2020 vs 2019:	**$0**	2020 Proposed Total:	**$0**	Variance 2020 vs 2019:	**($248,755)**	2020 Proposed Total:	**$1,770,540**

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
	EXPENSES					
60-442-40010-00000	SALARIES/WAGES	$324,172	$288,432	$339,244	$339,561	$355,139
60-442-40030-00000	OVERTIME	$7,500	$5,825	$6,500	$6,500	$6,500
60-442-40040-00000	SHIFT DIFFERENTIAL	$100	$24	$50	$50	$50
60-442-40110-00000	CALL BACK	$10,500	$11,772	$12,250	$12,250	$12,250
60-442-41010-00000	FICA	$25,373	$25,458	$27,409	$27,415	$28,606
60-442-41120-00000	LAUNDRY CLEANING	$3,500	$3,327	$3,500	$3,500	$3,500
60-442-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$2,000	$780		$2,000	$2,000
60-442-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$30,000	$14,145		$20,000	$20,000
60-442-43020-00000	TRAINING	$5,000	$5,060	$5,000	$5,000	$5,000
60-442-43150-00000	INTERFUND TRANSFER	$20,580	$20,580	$0	$20,580	$20,580
60-442-43190-00000	CENTRAL SERVICES ALLOCATIONS	$28,825	$28,825	$27,700	$27,118	$26,236
60-442-43191-00000	INFO SERVICES ALLOCATIONS	$18,072	$18,072	$21,584	$19,909	$19,636
60-442-43192-00000	HUMAN RESOURCES ALLOCATIONS	$9,419	$9,419	$9,730	$9,842	$9,883
60-442-43193-00000	INSURANCE ALLOCATIONS	$243,044	$243,044	$242,752	$230,442	$180,863
60-442-43194-00000	BUSINESS ADMIN ALLOCATIONS	$59,995	$59,995	$64,024	$64,236	$64,307
60-442-44010-00000	POSTAGE/SHIPPING	$3,100	$1,499	$1,500	$1,500	$1,500
60-442-44050-00000	TELEPHONE	$500	$411	$475	$475	$475
60-442-44170-00000	BUILDING RENT	$21,500	$21,500	$21,500	$21,500	$21,500
60-442-44190-00000	BUILDING REPAIR SERVICE	$3,000	$1,680	$2,580	$2,000	$2,000
60-442-44200-00000	VEHICLE REPAIR SERVICE	$30,000	$23,911	$30,000	$25,000	$25,000
60-442-44210-00000	OTHER REPAIR SERVICE	$2,000	$1,900	$1,900	$1,900	$1,900
60-442-44400-00000	OTHER CONTRACTUAL SERVICES	$1,750	$1,292	$1,663	$1,250	$1,250
60-442-45090-00000	BOOKS/SUBSCRIPTIONS	$0	$0	$500	$500	$500
60-442-45110-00000	MEDICAL SUPPLIES	$500	$487	$500	$500	$500
60-442-45120-00000	VEHICLE PARTS/ACCESSORIES	$25,000	$25,000	$25,000	$25,000	$25,000
60-442-45130-00000	VEHICLE FUELS	$8,000	$8,000	$8,000	$8,000	$8,000
60-442-45170-00000	TOOLS	$5,000	$4,656	$5,000	$5,000	$5,000
60-442-45231-00000	SANITARY SEWER-EMERGENCY REPAIR	$65,000	$50,000	$65,000	$50,000	$65,000
60-442-45300-00000	OTHER SUPPLIES/MATERIALS	$5,000	$5,000	$5,000	$5,000	$5,000
61-442-44400-00000	OTHER CONTRACTUAL SERVICES	$130,000	$130,000	$130,000	$0	$0
Cost Center Total (NONE):		**$1,088,430**	**$1,010,094**	**$1,058,361**	**$936,028**	**$917,175**
60-442-45120-00004	VEHICLE PARTS/ACCESSORIES	$15,000	$0	$15,000	$7,500	$7,500

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	$0	2020 Request Total:		2019 Budget Total:	$2,019,295	2020 Request Total:	$1,952,701
2019 YTD Proj. Total:	$0	2020 Draft Total:	$0	2019 YTD Proj. Total:	$3,688,927	2020 Draft Total:	$1,789,393
Variance 2020 vs 2019:	$0	2020 Proposed Total:	$0	Variance 2020 vs 2019:	($248,755)	2020 Proposed Total:	$1,770,540

Account	Description	2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
60-442-45210-00004	CHEMICALS	$2,000	$1,000	$1,500	$1,000	$1,000
60-442-45230-00004	SANITARY SEWER SUPPLIES	$15,000	$11,580	$14,250	$10,000	$10,000
60-442-46101-00004	VEHICLE/LEASE PURCHASE	$116,765	$116,765	$116,765	$116,765	$116,765
60-442-46120-00004	DATA PROCESSING EQUIPMENT	$1,000	$1,000	$1,000	$1,000	$1,000
60-442-46121-00004	CAPITAL - DP SOFTWARE	$1,500	$1,500	$1,500	$1,500	$1,500
Cost Center Total (PREVENTATIVE MAINTENANCE):		**$151,265**	**$131,845**	**$150,015**	**$137,765**	**$137,765**
60-442-44180-00005	VEHICLE/EQUIPMENT RENTAL	$1,000	$1,000	$950	$950	$950
60-442-44400-00005	OTHER CONTRACTUAL SERVICES	$100,000	$100,007	$100,000	$100,000	$100,000
60-442-45100-00005	PLUMBING SUPPLIES	$2,000	$0	$1,000	$0	$0
60-442-45140-00005	LUMBER/HARDWARE/BLDG ALTERATIO	$200	$50	$50	$50	$50
60-442-45150-00005	STREET/HIGHWAY MATERIAL	$2,500	$500	$2,375	$500	$500
60-442-45160-00005	SIGNS	$1,000	$0	$500	$0	$0
60-442-45200-00005	CEMENT/CONCRETE/STONE	$8,000	$2,500	$7,600	$5,000	$5,000
60-442-45230-00005	SANITARY SEWER SUPPLIES	$25,000	$16,241	$23,750	$18,500	$18,500
60-442-45280-00005	MACHINERY SUPPLIES	$400	$400	$100	$100	$100
60-442-46170-00005	OTHER CAPITAL EQUIPMENT	$17,500	$15,000	$17,500	$15,000	$15,000
60-442-47120-00005	CONSTRUCTION	$500,000	$2,289,790	$500,000	$500,000	$500,000
Cost Center Total (CONSTRUCTION REPAIR WORK):		**$657,600**	**$2,425,488**	**$653,825**	**$640,100**	**$640,100**
60-442-42011-00006	ENGINEERING	$35,000	$35,000	$25,000	$25,000	$25,000
60-442-44400-00006	OTHER CONTRACTUAL SERVICES	$50,000	$50,000	$40,000	$40,000	$40,000
Cost Center Total (INFLOW INFILTRATION):		**$85,000**	**$85,000**	**$65,000**	**$65,000**	**$65,000**
60-442-45060-00007	PAINT & SUPPLIES	$4,000	$4,000	$4,000	$4,000	$4,000
Cost Center Total (PA ONE CALLS):		**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**
60-442-44410-00141	FLOOD PUMP STATIONS	$30,000	$30,000	$20,000	$5,000	$5,000
60-442-45131-00141	STATIONARY ENGINE FUELS	$3,000	$2,500	$1,500	$1,500	$1,500
Cost C ter Total (FLOOD PUMPING STATIONS):		**$33**	**$32,500**	**$21,500**	**$6,500**	**$6,500**

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	$0	2020 Request Total:		2019 Budget Total:	$2,019,295	2020 Request Total:	$1,952,701
2019 YTD Proj. Total:	$0	2020 Draft Total:	$0	2019 YTD Proj. Total:	$3,688,927	2020 Draft Total:	$1,789,393
Variance 2020 vs 2019:	$0	2020 Proposed Total:	$0	Variance 2020 vs 2019:	($248,755)	2020 Proposed Total:	$1,770,540

Total Expenses:	$2,019,295	$3,688,927	$1,952,701	$1,789,393	$1,770,540

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	$0	2020 Request Total:		2019 Budget Total:	$2,019,295	2020 Request Total:	$1,952,701
2019 YTD Proj. Total:	$0	2020 Draft Total:	$0	2019 YTD Proj. Total:	$3,688,927	2020 Draft Total:	$1,789,393
Variance 2020 vs 2019:	$0	2020 Proposed Total:	$0	Variance 2020 vs 2019:	($248,755)	2020 Proposed Total:	$1,770,540

Account	Description	2019 YTD Projected	Explanation
	PROJECTED EXPENSES		
60-442-40010-00000	SALARIES/WAGES	$288,432	Projection based on current 2019 wage scale.
60-442-40030-00000	OVERTIME	$5,825	Projection based on 2019 wage scale
60-442-40040-00000	SHIFT DIFFERENTIAL	$24	Projection based on current 2019 wage scale
60-442-40110-00000	CALL BACK	$11,772	Based on 2019 wage scale
60-442-41010-00000	FICA	$25,458	7.65% of 2019 salaries.
60-442-41120-00000	LAUNDRY CLEANING	$3,327	Based on trneds
60-442-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$780	
60-442-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$14,145	
60-442-42011-00006	ENGINEERING	$35,000	Would need to schedule key project for collection
60-442-43020-00000	TRAINING	$5,060	Based on trend
60-442-43150-00000	INTERFUND TRANSFER	$20,580	determined by Finance.
60-442-43190-00000	CENTRAL SERVICES ALLOCATIONS	$28,825	Calculated: Internal Services
60-442-43191-00000	INFO SERVICES ALLOCATIONS	$18,072	Calculated: Internal Services
60-442-43192-00000	HUMAN RESOURCES ALLOCATIONS	$9,419	Calculated: Internal Services
60-442-43193-00000	INSURANCE ALLOCATIONS	$243,044	Calculated: Internal Services
60-442-43194-00000	BUSINESS ADMIN ALLOCATIONS	$59,995	Calculated: Internal Services
60-442-44010-00000	POSTAGE/SHIPPING	$1,499	projected
60-442-44050-00000	TELEPHONE	$411	expected
60-442-44170-00000	BUILDING RENT	$21,500	already deducted
60-442-44180-00005	VEHICLE/EQUIPMENT RENTAL	$1,000	projected
60-442-44190-00000	BUILDING REPAIR SERVICE	$1,680	expected repairs.
60-442-44200-00000	VEHICLE REPAIR SERVICE	$23,911	expected vehicle repairs.
60-442-44210-00000	OTHER REPAIR SERVICE	$1,900	expected other repairs.
60-442-44400-00000	OTHER CONTRACTUAL SERVICES	$1,292	expected.
60-442-44400-00005	OTHER CONTRACTUAL SERVICES	$100,007	expected .
60-442-44400-00006	OTHER CONTRACTUAL SERVICES	$50,000	expected usage
60-442-44410-00141	FLOOD PUMP STATIONS	$30,000	generator maintenance and emergencies.
60-442-45060-00007	PAINT & SUPPLIES	$4,000	expected
60-442-45110-00000	MEDICAL SUPPLIES	$487	already paid contract fee
60-442-45120-00000	VEHICLE PARTS/ACCESSORIES	$25,000	expected usage
60-442-45130-00000	VEHICLE FUELS	$8,000	expected usage.
60-442-45131-00141	STATIONARY ENGINE FUELS	$2[illegible]	expected usage.
60-442-4514[illegible]05	LUMBER/HARDWARE/BLDG ALTERATIO		expected usage

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	$0	2020 Request Total:		2019 Budget Total:	$2,019,295	2020 Request Total:	$1,952,701
2019 YTD Proj. Total:	$0	2020 Draft Total:	$0	2019 YTD Proj. Total:	$3,688,927	2020 Draft Total:	$1,789,393
Variance 2020 vs 2019:	$0	2020 Proposed Total:	$0	Variance 2020 vs 2019:	($248,755)	2020 Proposed Total:	$1,770,540

Account	Description	2019 YTD Projected	Explanation
60-442-45150-00005	STREET/HIGHWAY MATERIAL	$500	expected usage.
60-442-45170-00000	TOOLS	$4,656	expected usage
60-442-45200-00005	CEMENT/CONCRETE/STONE	$2,500	expected usage.
60-442-45210-00004	CHEMICALS	$1,000	expected usage.
60-442-45230-00004	SANITARY SEWER SUPPLIES	$11,580	expected usage
60-442-45230-00005	SANITARY SEWER SUPPLIES	$16,241	expected usage.
60-442-45231-00000	SANITARY SEWER-EMERGENCY REPAIR	$50,000	potential emergency repairs.
60-442-45280-00005	MACHINERY SUPPLIES	$400	expected usage
60-442-45300-00000	OTHER SUPPLIES/MATERIALS	$5,000	expected usage
60-442-46101-00004	VEHICLE/LEASE PURCHASE	$116,765	expected usage
60-442-46120-00004	DATA PROCESSING EQUIPMENT	$1,000	expected usage
60-442-46121-00004	CAPITAL - DP SOFTWARE	$1,500	expected usage
60-442-46170-00005	OTHER CAPITAL EQUIPMENT	$15,000	expected usage
60-442-47120-00005	CONSTRUCTION	$2,289,790	expected usage.
61-442-44400-00000	OTHER CONTRACTUAL SERVICES	$130,000	Sewer main repairs. $130,000.00 CSL Services Inc.

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$0**	2020 Request Total:		2019 Budget Total:	**$2,019,295**	2020 Request Total:	**$1,952,701**
2019 YTD Proj. Total:	**$0**	2020 Draft Total:	**$0**	2019 YTD Proj. Total:	**$3,688,927**	2020 Draft Total:	**$1,789,393**
Variance 2020 vs 2019:	**$0**	2020 Proposed Total:	**$0**	Variance 2020 vs 2019:	**($248,755)**	2020 Proposed Total:	**$1,770,540**

Account	Description	2020 Proposed	Justification/Explanation
		REQUESTED EXPENSES	
60-442-40010-00000	SALARIES/WAGES	$355,139	Wages based on 2020 wage scale.
60-442-40030-00000	OVERTIME	$6,500	Based on 2020 wage scale
60-442-40040-00000	SHIFT DIFFERENTIAL	$50	Based on 2020 wage scale
60-442-40110-00000	CALL BACK	$12,250	Based on 2020 wage scale
60-442-41010-00000	FICA	$28,606	7.65% of 2020 salaries.
60-442-41120-00000	LAUNDRY CLEANING	$3,500	No change. Based on City contract
60-442-41130-00000	CLOTHING/SHOES/UNIFORMS/EQUIP	$2,000	Footwear Allowance uniforms
60-442-42010-00000	ARCHITECT/ENGINEER/CONSULTANT	$20,000	2020 Fees
60-442-42011-00006	ENGINEERING	$25,000	28% reduction
60-442-43020-00000	TRAINING	$5,000	NC. Expect to send people for training
60-442-43150-00000	INTERFUND TRANSFER	$20,580	leases
60-442-43190-00000	CENTRAL SERVICES ALLOCATIONS	$26,236	Calculated: Internal Services
60-442-43191-00000	INFO SERVICES ALLOCATIONS	$19,636	Calculated: Internal Services
60-442-43192-00000	HUMAN RESOURCES ALLOCATIONS	$9,883	Calculated: Internal Services
60-442-43193-00000	INSURANCE ALLOCATIONS	$180,863	Calculated: Internal Services
60-442-43194-00000	BUSINESS ADMIN ALLOCATIONS	$64,307	Calculated: Internal Services
60-442-44010-00000	POSTAGE/SHIPPING	$1,500	reduced by 51% based on historic trend
60-442-44050-00000	TELEPHONE	$475	5% reduction
60-442-44170-00000	BUILDING RENT	$21,500	based on historic usage
60-442-44180-00005	VEHICLE/EQUIPMENT RENTAL	$950	5% reduction
60-442-44190-00000	BUILDING REPAIR SERVICE	$2,000	expected repairs.
60-442-44200-00000	VEHICLE REPAIR SERVICE	$25,000	expected vehicle repairs.
60-442-44210-00000	OTHER REPAIR SERVICE	$1,900	5% reduction
60-442-44400-00000	OTHER CONTRACTUAL SERVICES	$1,250	.
60-442-44400-00005	OTHER CONTRACTUAL SERVICES	$100,000	sewer repairs outside of internal equipment capabilities
60-442-44400-00006	OTHER CONTRACTUAL SERVICES	$40,000	I/I reduction projects: 20% reduction
60-442-44410-00141	FLOOD PUMP STATIONS	$5,000	.
60-442-45060-00007	PAINT & SUPPLIES	$4,000	no change
60-442-45090-00000	BOOKS/SUBSCRIPTIONS	$500	text books International Plumbing Code and related
60-442-45110-00000	MEDICAL SUPPLIES	$500	no change: contract
60-442-45120-00000	VEHICLE PARTS/ACCESSORIES	$25,000	no change
60-442-45120 004	VEHICLE PARTS/ACCESSORIES	$7	Reduced amount

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2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$0**	2020 Request Total:		2019 Budget Total:	**$2,019,295**	2020 Request Total:	**$1,952,701**
2019 YTD Proj. Total:	**$0**	2020 Draft Total:	**$0**	2019 YTD Proj. Total:	**$3,688,927**	2020 Draft Total:	**$1,789,393**
Variance 2020 vs 2019:	**$0**	2020 Proposed Total:	**$0**	Variance 2020 vs 2019:	**($248,755)**	2020 Proposed Total:	**$1,770,540**

Account	Description	2020 Proposed	Justification/Explanation
60-442-45130-00000	VEHICLE FUELS	$8,000	no change
60-442-45131-00141	STATIONARY ENGINE FUELS	$1,500	50% reduction
60-442-45140-00005	LUMBER/HARDWARE/BLDG ALTERATIO	$50	75% reduction
60-442-45150-00005	STREET/HIGHWAY MATERIAL	$500	expected usage.
60-442-45170-00000	TOOLS	$5,000	no change
60-442-45200-00005	CEMENT/CONCRETE/STONE	$5,000	Reduction
60-442-45210-00004	CHEMICALS	$1,000	Reduction
60-442-45230-00004	SANITARY SEWER SUPPLIES	$10,000	preventive maintenance
60-442-45230-00005	SANITARY SEWER SUPPLIES	$18,500	Reduction
60-442-45231-00000	SANITARY SEWER-EMERGENCY REPAIR	$65,000	Emergency repairs
60-442-45280-00005	MACHINERY SUPPLIES	$100	75% reduction
60-442-45300-00000	OTHER SUPPLIES/MATERIALS	$5,000	no change
60-442-46101-00004	VEHICLE/LEASE PURCHASE	$116,765	no change
60-442-46120-00004	DATA PROCESSING EQUIPMENT	$1,000	no change: EagleI and Cues software maintenance
60-442-46121-00004	CAPITAL - DP SOFTWARE	$1,500	no change: EagleI and Cues software maintenance
60-442-46170-00005	OTHER CAPITAL EQUIPMENT	$15,000	reduction
60-442-47120-00005	CONSTRUCTION	$500,000	no change

Budget Reques ·ft/Proposed Report

2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$0**	2020 Request Total:		2019 Budget Total:	**$2,019,295**	2020 Request Total:	**$1,952,701**
2019 YTD Proj. Total:	**$0**	2020 Draft Total:	**$0**	2019 YTD Proj. Total:	**$3,688,927**	2020 Draft Total:	**$1,789,393**
Variance 2020 vs 2019:	**$0**	2020 Proposed Total:	**$0**	Variance 2020 vs 2019:	**($248,755)**	2020 Proposed Total:	**$1,770,540**

Fund Total Report

Fund	Fund Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
60	SEWER	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$1,889,295	$3,558,927	$1,822,701	$1,789,393	$1,770,540
61	IMSF	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$130,000	$130,000	$130,000	$0	$0

Budget Reques. ~/Proposed Report

2020 Proposed Budget

SEWER MAINTENANCE

Total Revenue				Total Expenses			
2019 Budget Total:	**$0**	2020 Request Total:		2019 Budget Total:	**$2,019,295**	2020 Request Total:	**$1,952,701**
2019 YTD Proj. Total:	**$0**	2020 Draft Total:	**$0**	2019 YTD Proj. Total:	**$3,688,927**	2020 Draft Total:	**$1,789,393**
Variance 2020 vs 2019:	**$0**	2020 Proposed Total:	**$0**	Variance 2020 vs 2019:	**($248,755)**	2020 Proposed Total:	**$1,770,540**

Cost Center Total Report

Cost Center	Cost Center Description		2019 Adj. Budget	2019 YTD Projected	2020 Budg. Request	2020 Draft	2020 Proposed
00000	NONE	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$1,088,430	$1,010,094	$1,058,361	$936,028	$917,175
00004	PREVENTATIVE MAINTENANCE	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$151,265	$131,845	$150,015	$137,765	$137,765
00005	CONSTRUCTION REPAIR WORK	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$657,600	$2,425,488	$653,825	$640,100	$640,100
00006	INFLOW INFILTRATION	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$85,000	$85,000	$65,000	$65,000	$65,000
00007	PA ONE CALLS	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$4,000	$4,000	$4,000	$4,000	$4,000
00141	FLOOD PUMPING STATIONS	**Revenue:**	$0	$0	$0	$0	$0
		Expense:	$33,000	$32,500	$21,500	$6,500	$6,500

Sewer Maintenance

Position Title	Union	2019 FTE Approved	2019 Wages	2020 FTE Requested	2020 Wages	2020 27th Pay	Total 2020 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Sewer Maintenance Supervisor	NAFF	1	$49,612	1	$52,119	$2,005	$54,124	0	$4,512
WW Collection Operator I	TEAM	3	$131,726	3	$139,070	$5,349	$144,419	0	$12,693
WW Collection Operator II	TEAM	3	$142,834	3	$150,797	$5,800	$156,596	0	$13,763
Total		7	**$324,172**	7	**$341,986**	**$13,153**	**$355,139**	**0**	**$30,968**

Employee Totals		
NAFF		**1**
Full Time	1	
TEAM		**6**
Full Time	6	
Total		**7**

Fund	
60	$355,139
Grand Total	**$355,139**

FY 2021 Budget

FY 2021 Proposed Budget

Welcome to the City of York's 2021 Budget Book!

Utilizing the "Stories" function through the City of York's new budgeting program, OpenGov, Mayor Michael Helfrich and his Budget Team are able to present a interactive, virtual budget book for 2021.

Please use the links below to jump to a specific section or to take you directly to the Table of Contents which has links to all sections of the City of York's 2021 Budget Book.

- Mayor's Message
- Executive Summary
- Table of Contents

Please direct any questions regarding this Budget Book to BudgetTeam@yorkcity.org.

Proprietary Funds

Part 1 of 2

Overview of Proprietary Fund category and list of funds

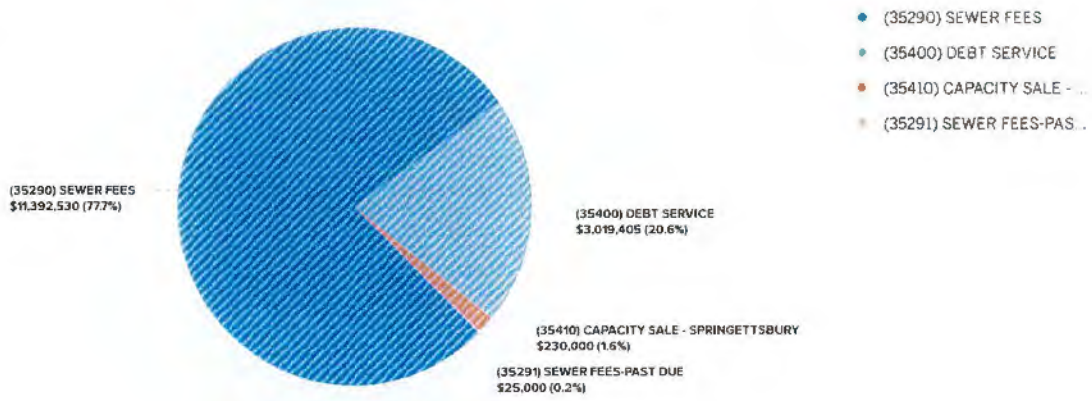
Propriety Funds are used to account for a government's ongoing organizations and activities that are similar to businesses found in the the private sector. These funds are considered self-supporting in that the services rendered by them are generally financed through use charges or on a cost reimbursement basis. There are two (2) types of proprietary funds:

The Enterprise Fund is used to account for any activity for which a fee is charged to external users for goods or services. Activities are required to be reported as enterprise funds. The City Enterprise Funds include the following funds:

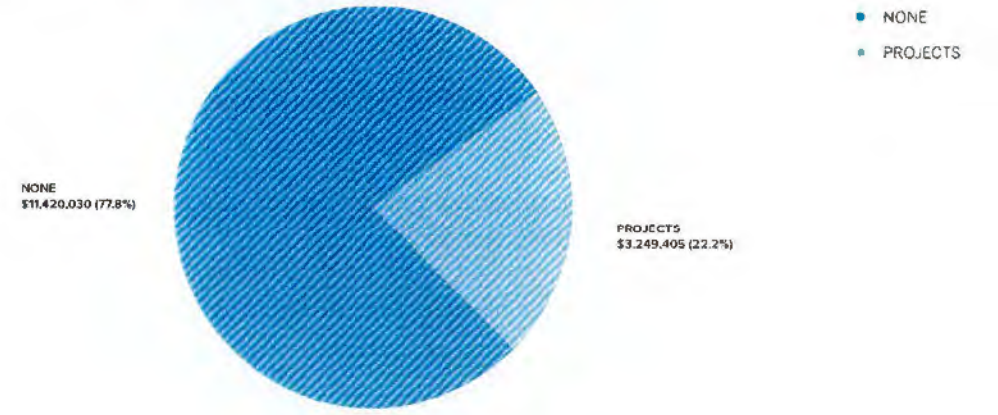
- Sewer - Fund 60: This is a City fund for the collection of sewer fees and the operation and maintenance of Sewer Maintenance.
- Debt Service Sewer Revenue Bonds: This is a funding source for various capital improvements paid for by sewer revenue and the connected municipalities.
- Intermunicipal Sewer Fund - Fund 61: This is for the operation and maintenance of the Wastewater Treatment Plant
- Sewer Transportation - Fund 62: This fund holds moneys for the $.0.04 per 1,000 gallons charged to the connected municipalities for use to pay fro capital improvements to the sanitary sewer conveyance system and/or the Wastewater Treatment Plant.

Link to Proprietary Funds - Part 2 of 2

Sewer - Fund 60: Revenue by Type - Charges for Services

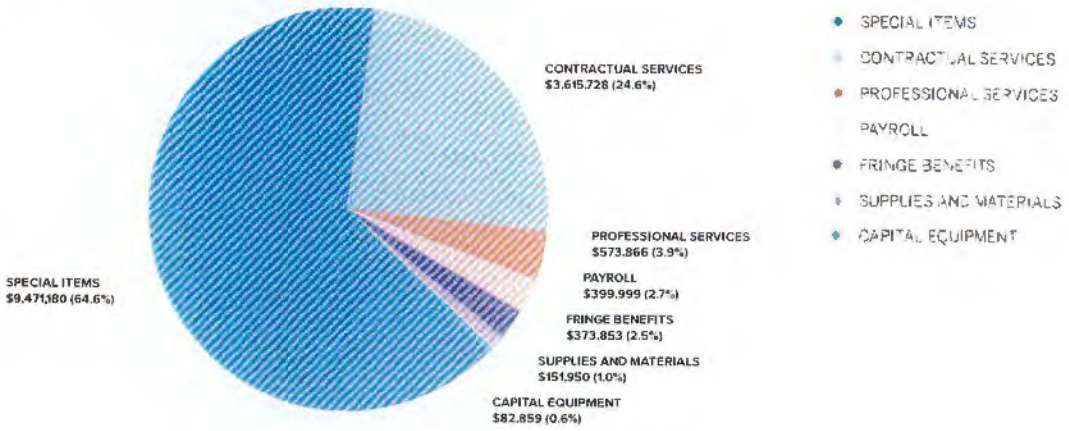


Sewer - Fund 60: Revenue by Cost Center

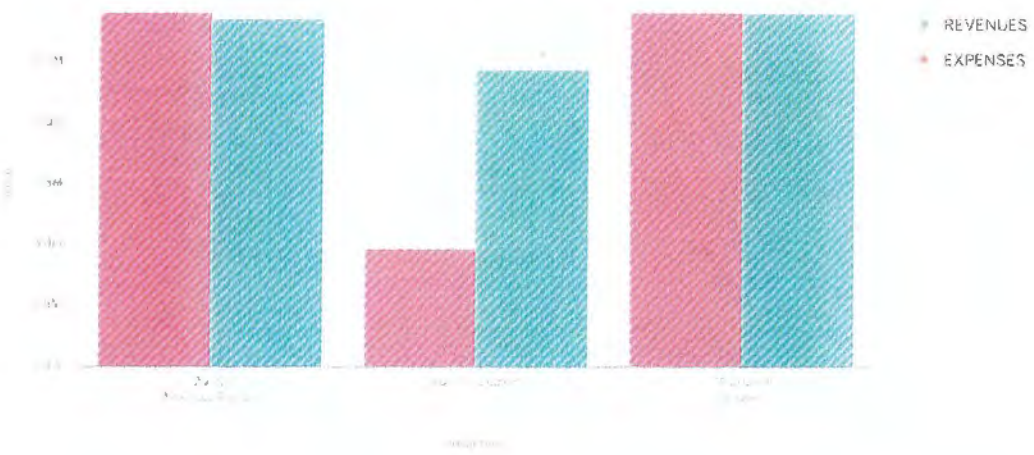


Sewer - Fund 60: Revenue by Cost Center - Projects

Sewer - Fund 60: Expenses by Type



Sewer - Fund 60: Revenue & Expenses



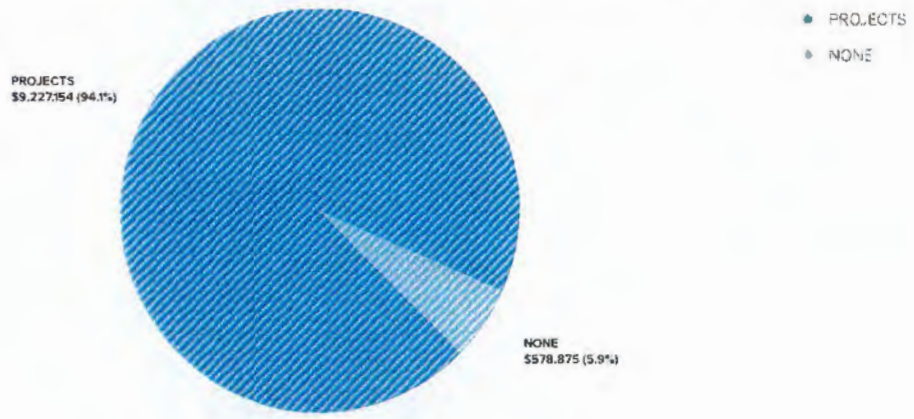
Collapse All	2020 Amended Budget	2020 Projected	2021 Draft Budget
- REVENUES	$ 14,341,968	$ 12,237,967	$ 14,669,435
▾ CHARGES FOR SERVICES	14,337,968	12,237,967	14,666,935
(35290) SEWER FEES	8,847,890	8,847,890	11,392,530
(35291) SEWER FEES-PAST DUE	2,000,000	0	75,000
(35292) SEWER FEES-AMNESTY	100,000	0	0
(35350) TAX & SEWER CERTIFICATION/COPY	2,000	2,000	0
(35400) DEBT SERVICE	3,158,078	3,158,077	3,019,405
(35410) CAPACITY SALE - SPRINGETTSBURY	230,000	230,000	230,000
▾ SALES/SUNDRY RECEIPTS	4,000	0	2,500
(37080) MISCELLANEOUS	4,000	0	2,500
▾ EXPENSES	14,976,050	4,858,452	14,669,435
▾ PAYROLL	519,218	465,757	399,999
(40010) SALARIES/WAGES	496,668	456,075	386,474
(40030) OVERTIME	10,250	3,150	3,500
(40040) SHIFT DIFFERENTIAL	50	0	25
(40110) CALL BACK	12,250	6,532	10,000
▾ FRINGE BENEFITS	45,162	41,179	373,853
(41042) O & E PENSION ALLOCATIONS	0	0	70,484
(41055) HEALTH INSURANCE ALLOCATIONS	0	0	238,774
(41010) FICA	39,562	34,699	38,249
(41101) UNEMPLOYMENT ALLOCATION	0	0	7,447
(41091) WORKERS COMPENSATION ALLOCATION	0	0	11,756
(41051) LIFE INSURANCE ALLOCATIONS	0	0	583
(41120) LAUNDRY CLEANING	3,500	4,800	4,000
(41130) CLOTHING/SHOES/UNIFORMS/EQUIP	2,000	1,680	2,560
▾ PROFESSIONAL SERVICES	515,866	18,750	573,866
(42010) ARCHITECT/ENGINEER/CONSULTANT	20,000	10,000	20,000
(42011) ENGINEERING	25,000	0	0
(42040) AUDIT	8,750	8,750	8,750
(42070) OTHER PROFESSIONAL SERVICES	437,116	0	475,116
(42080) COLLECTION FEES	25,000	0	70,000
▾ SPECIAL ITEMS	9,884,769	1,228,503	9,471,180
(43010) TRAVEL	0	0	1,250
(43020) TRAINING	5,000	180	5,450
(43090) INDIRECT COSTS	340,298	340,298	377,497
(43131) SEWER LEASE/DEBT SERVICE	5,756,590	0	5,497,582
(43150) INTERFUND TRANSFER	2,894,856	0	2,877,363
(43190) CENTRAL SERVICES ALLOCATIONS	31,336	31,336	32,204
(43191) INFO SERVICES ALLOCATIONS	30,049	30,049	25,999
(43192) HUMAN RESOURCES ALLOCATIONS	13,271	13,271	13,837
(43193) INSURANCE ALLOCATIONS	227,014	227,014	32,055
(43194) BUSINESS ADMIN ALLOCATIONS	86,355	86,355	7,344
▾ CONTRACTUAL SERVICES	3,219,520	2,977,374	3,615,728
(44010) POSTAGE/SHIPPING	1,500	534	1,000

(44030) ASSOCIATION DUES/CONFERENCES	0	0	1,700
(44050) TELEPHONE	475	435	500
(44060) WATER	2,000	0	2,300
(44070) ELECTRIC - BUILDINGS	15,000	0	15,300
(44080) ELECTRIC - INDUSTRIAL PARK	2,400	0	2,000
(44160) NATURAL GAS/HEATING FUEL	5,500	0	6,000
(44170) BUILDING RENT	27,989	21,500	27,989
(44180) VEHICLE/EQUIPMENT RENTAL	950	0	950
(44190) BUILDING REPAIR SERVICE	2,000	1,000	2,000
(44200) VEHICLE REPAIR SERVICE	25,000	5,300	25,000
(44210) OTHER REPAIR SERVICE	1,900	1,000	1,900
(44280) DATA PROCESSING	23,000	0	0
(44290) TOWNSHIP SEWER AGREEMENT	23,700	0	23,700
(44300) SEWER TREATMENT	2,941,956	2,941,956	3,360,389
(44400) OTHER CONTRACTUAL SERVICES	141,250	1,250	140,000
(44410) FLOOD PUMP STATIONS	5,000	5,000	5,000
▾ SUPPLIES AND MATERIALS	157,150	59,930	151,950
(45020) OFFICE/DATA PROCESSING	0	0	750
(45060) PAINT & SUPPLIES	4,000	3,000	2,000
(45090) BOOKS/SUBSCRIPTIONS	500	500	500
(45110) MEDICAL SUPPLIES	500	500	500
(45120) VEHICLE PARTS/ACCESSORIES	32,500	9,750	32,500
(45130) VEHICLE FUELS	8,000	3,000	9,000
(45131) STATIONARY ENGINE FUELS	1,500	1,500	1,500
(45140) LUMBER/HARDWARE/BLDG ALTERATIO	50	0	100
(45150) STREET/HIGHWAY MATERIAL	500	0	500
(45170) TOOLS	5,000	2,500	5,000
(45200) CEMENT/CONCRETE/STONE	5,000	0	0
(45210) CHEMICALS	1,000	1,000	1,000
(45230) SANITARY SEWER SUPPLIES	28,500	5,000	28,500
(45231) SANITARY SEWER-EMERGENCY REPAIRS	65,000	32,500	65,000
(45280) MACHINERY SUPPLIES	100	0	100
(45300) OTHER SUPPLIES/MATERIALS	5,000	680	5,000
▾ CAPITAL EQUIPMENT	134,265	66,359	82,859
(46101) VEHICLE/LEASE PURCHASE	116,765	64,859	64,859
(46120) DATA PROCESSING EQUIPMENT	1,000	500	1,000
(46121) CAPITAL - DP SOFTWARE	1,500	1,000	2,000
(46170) OTHER CAPITAL EQUIPMENT	15,000	0	15,000
▾ CAPITAL CONSTRUCTION	500,000	0	0
(47120) CONSTRUCTION	500,000	0	0
Revenues Less Expenses	$ -634,082	$ 7,379,515	$ 0

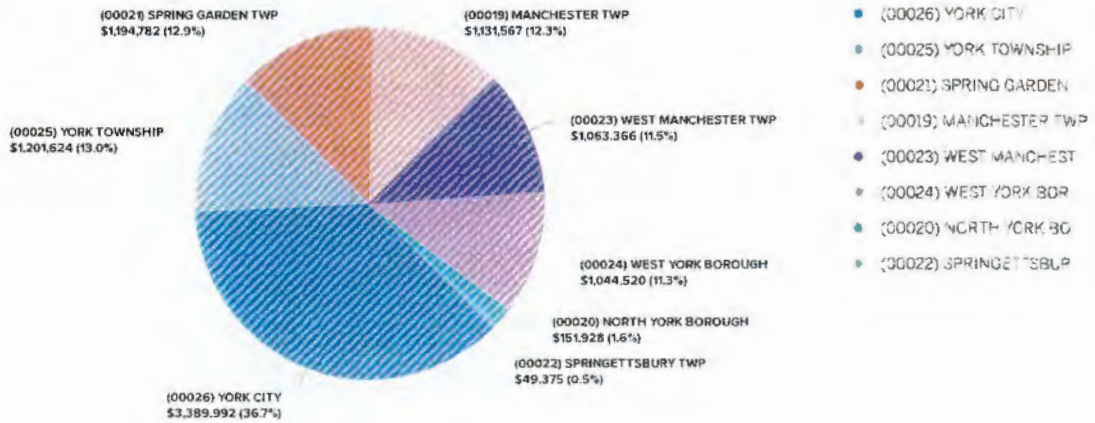
Debt Service - Sewer Revenue Bonds

Click here to see more details regarding Debt Service - Sewer Revenue Bonds

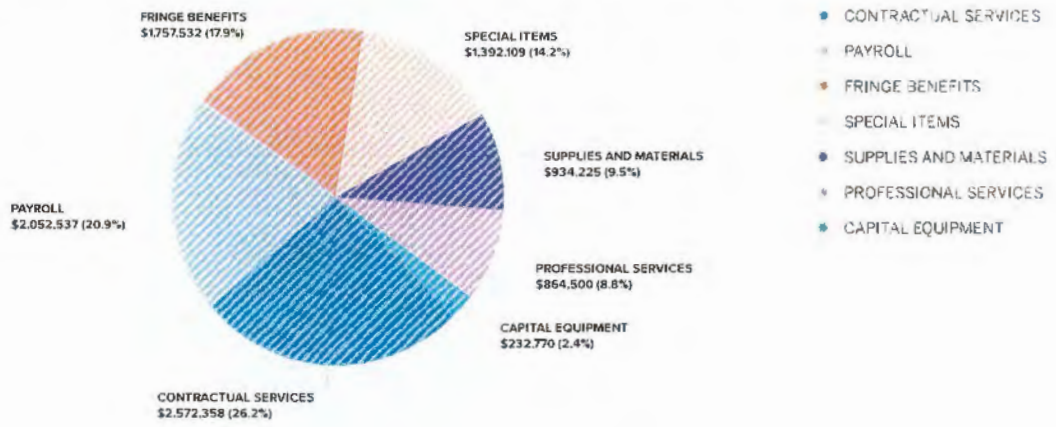
Intermunicipal Sewer Fund - Fund 61 - Revenue by Cost Center



Intermunicipal Sewer Fund - Fund 61 - Revenue by Cost Center - Projects



Intermunicipal Sewer Fund - Fund 61 - Expense by Type

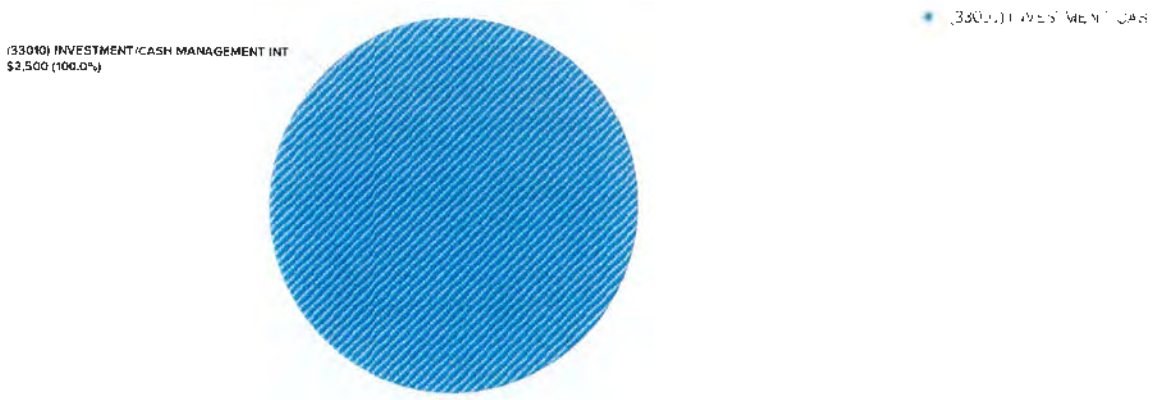


Intermunicipal Sewer Fund - Fund 61 - Revenue & Expenses

Collapse All	2020 Amended Budget	2020 Projected	2021 Draft Budget
▾ REVENUES	$9,751,934	$43,000	$9,806,329
▾ LICENSES/PERMITS	3,000	3,000	5,675
(31250) SEWAGE PERMITS	3,000	3,000	5,675
▾ INTERESTS	46,500	0	4,200
(33010) INVESTMENT/CASH MANAGEMENT INT	46,500	0	4,200
▾ CHARGES FOR SERVICES	8,662,434	0	9,796,154
(35380) TREATMENT CHARGE	8,067,434	0	9,227,154
(35430) MIPP SAMPLE/ANALYTICAL FEE	45,000	0	44,000
(35630) SURCHARGE	550,000	0	525,000
▾ SALES/SUNDRY RECEIPTS	40,000	40,000	0
(37151) ELECTRIC-DEMAND RESPONSE	40,000	40,000	0
▾ EXPENSES	8,610,040	4,232,569	9,806,032
▾ PAYROLL	2,228,413	1,803,188	2,052,537
(40010) SALARIES/WAGES	2,028,658	1,640,060	1,863,280
(40030) OVERTIME	184,000	153,747	167,997
(40040) SHIFT DIFFERENTIAL	11,255	0	11,260
(40110) CALL BACK	4,500	9,382	10,000
▾ FRINGE BENEFITS	196,807	134,414	1,757,532
(41042) O & E PENSION ALLOCATIONS	0	0	339,821
(41055) HEALTH INSURANCE ALLOCATIONS	0	0	1,121,267
(41010) FICA	170,532	134,414	157,432
(41101) UNEMPLOYMENT ALLOCATION	0	0	35,905
(41091) WORKERS COMPENSATION ALLOCATION	0	0	66,309
(41061) LIFE INSURANCE ALLOCATIONS	0	0	2,742
(41120) LAUNDRY CLEANING	19,000	0	25,000
(41130) CLOTHING/SHOES/UNIFORMS/EQUIP	7,075	0	9,065
▾ PROFESSIONAL SERVICES	249,500	14,500	864,500
(42010) ARCHITECT/ENGINEER/CONSULTANT	135,000	0	165,000
(42040) AUDIT	14,500	14,500	14,500
(42070) OTHER PROFESSIONAL SERVICES	100,000	0	685,000
▾ SPECIAL ITEMS	2,319,547	2,280,466	1,342,109
(43010) TRAVEL	2,500	0	1,000
(43020) TRAINING	16,000	0	25,590
(43090) INDIRECT COSTS	575,299	575,299	782,084
(43150) INTERFUND TRANSFER	20,580	0	20,580
(43290) CENTRAL SERVICES ALLOCATIONS	100,817	100,817	121,892
(43191) INFO SERVICES ALLOCATIONS	114,244	114,244	125,602
(43192) HUMAN RESOURCES ALLOCATIONS	51,885	51,885	56,849
(43193) INSURANCE ALLOCATIONS	1,000,610	1,000,610	213,034
(43194) BUSINESS ADMIN ALLOCATIONS	337,611	337,611	35,477
▾ CONTRACTUAL SERVICES	2,450,183	0	2,572,358
(44010) POSTAGE/SHIPPING	20,400	0	25,400
(44020) PRINTING/BINDING	100	0	100
(44030) ASSOCIATION DUES/CONFERENCES	2,700	0	2,960

(44040) ADVERTISING	1,500	0	1,500
(44060) WATER	6,500	0	6,500
(44070) ELECTRIC - BUILDINGS	600,800	0	300,850
(44160) NATURAL GAS/HEATING FUEL	150,800	0	650,980
(44170) BUILDING RENT	10,333	0	10,333
(44180) VEHICLE/EQUIPMENT RENTAL	5,000	0	5,000
(44190) BUILDING REPAIR SERVICE	150,300	0	150,300
(44200) VEHICLE REPAIR SERVICE	8,000	0	7,750
(44210) OTHER REPAIR SERVICE	111,000	0	103,000
(44220) SLUDGE DISPOSAL	400,000	0	400,000
(44230) LABORATORY FEES	57,500	0	65,060
(44260) REFUSE DISPOSAL	750	0	950
(44270) COUNTY LANDFILL	15,000	0	15,000
(44310) RADIO COMMUNICATIONS	3,000	0	0
(44400) OTHER CONTRACTUAL SERVICES	706,500	0	614,675
(44411) WWTP PROCESS IMPROVEMENTS	200,000	0	212,000
▾ SUPPLIES AND MATERIALS	928,465	0	934,225
(45020) OFFICE/DATA PROCESSING	0	0	2,680
(45030) HORTICULTURAL SUPPLIES/MATERIA	2,500	0	0
(45040) ELECTRICAL SUPPLIES	60,500	0	65,000
(45060) PAINT & SUPPLIES	200	0	200
(45100) PLUMBING SUPPLIES	5,000	0	3,000
(45110) MEDICAL SUPPLIES	1,500	0	2,500
(45120) VEHICLE PARTS/ACCESSORIES	6,850	0	8,150
(45130) VEHICLE FUELS	9,000	0	9,550
(45140) LUMBER/HARDWARE/BLDG ALTERATIO	2,000	0	2,000
(45150) STREET/HIGHWAY MATERIAL	2,500	0	0
(45160) SIGNS	500	0	0
(45170) TOOLS	7,000	0	7,000
(45200) CEMENT/CONCRETE/STONE	750	0	750
(45210) CHEMICALS	85,000	0	85,000
(45220) POLYMER	260,000	0	260,000
(45260) LABORATORY SUPPLIES	34,000	0	37,720
(45280) MACHINERY SUPPLIES	380,000	0	380,000
(45300) OTHER SUPPLIES/MATERIALS	70,665	0	70,175
(45310) COPIER/FAX SUPPLIES	500	0	500
▾ CAPITAL EQUIPMENT	237,325	0	232,770
(46101) VEHICLE/LEASE PURCHASE	17,990	0	5,390
(46120) DATA PROCESSING EQUIPMENT	32,585	0	32,780
(46121) CAPITAL - DP SOFTWARE	135,000	0	135,000
(46140) LABORATORY EQUIPMENT	34,750	0	44,600
(46150) PARKS/RECREATION EQUIPMENT	1,000	0	0
(46160) SHOP MACHINERY EQUIPMENT	1,000	0	0
(46170) OTHER CAPITAL EQUIPMENT	15,000	0	15,000
Revenues Less Expenses	$ 141,894	$ -4,189,569	$ -3

Sewer Transportation - Fund 62 - Revenue by Type - Interest



Sewer Transportation - Fund 62 - Revenue & Expenses

Collapse All	2020 Amended Budget	2020 Projecte	Draft Budget
▾ REVENUES		$ 0	$ 2,500
▾ INTERESTS			2,500
(33010) INVESTMENT/CASH MANAGEMENT INT			2,500
Revenues Less Expenses		$ 0	$ 2,500

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Mayor Michael Helfrich

www.yorkcity.org

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Bureau of Wastewater Treatment Plant (WWTP)

Department of Public Works

Overview

The Bureau is responsible for the safe guarding the environment and public health by maintaining the highest level of treatment of wastewater at the lowest attainable cost to the customers. The Wastewater Treatment Plant treats and disposes the residulas from wastewater in a manner that meets the standards mandated by the Pennsylvania Department of Environmental Protection and the United States Environmental Protection Agency.

2020 Accomplishments

1. Completed the repairs of the Primary Clarifiers Project at a cost of approximately 1.2M. This project will protect final clarifiers and the tertiary filtration process from harmful debris.
2. Completed 80% of the Tertiary Filtration Replacement Project. This will improve permit compliance with solids and phosphorous removal.
3. Process control improvements providing better compliance results.

2021 Goals & Objectives

1. Scada replacement
2. Digester cleanup
3. Headwork gate #2 repair

2021 Revenue & Expense Changes

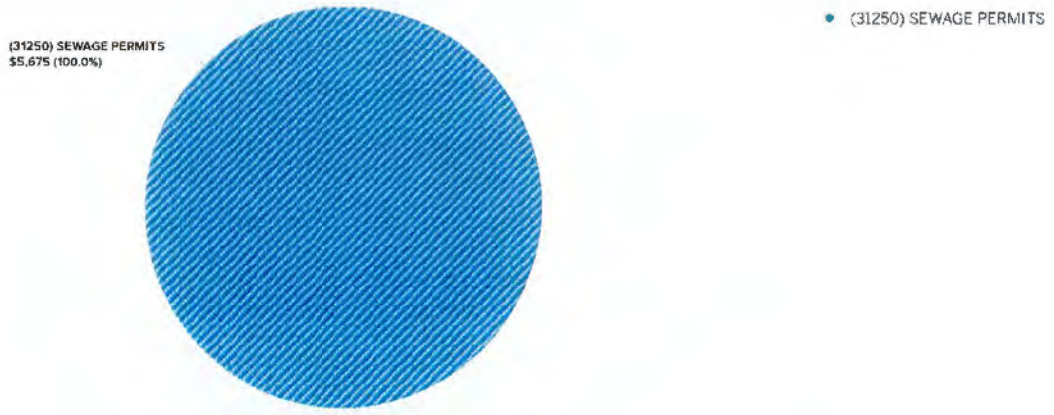
Revenue:

1. No significant change

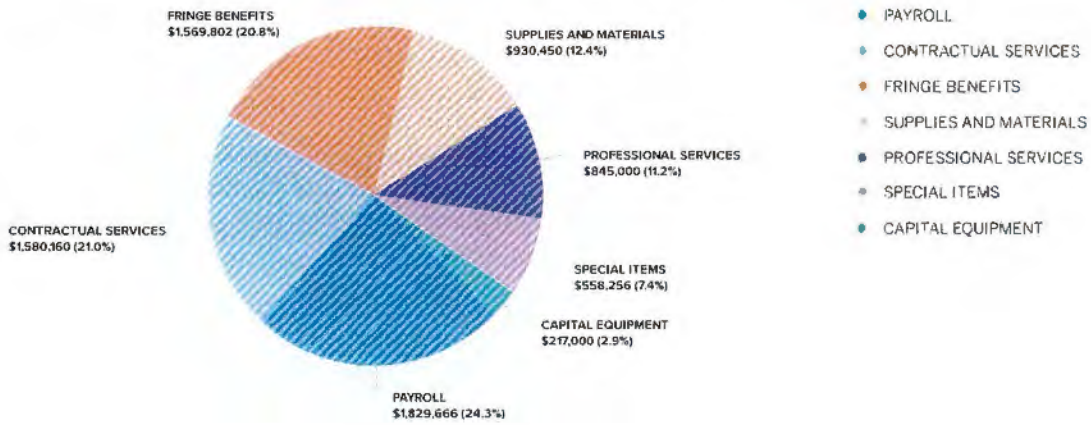
Expense:

1. Other professional Services due to 2021 prjojects referenced above

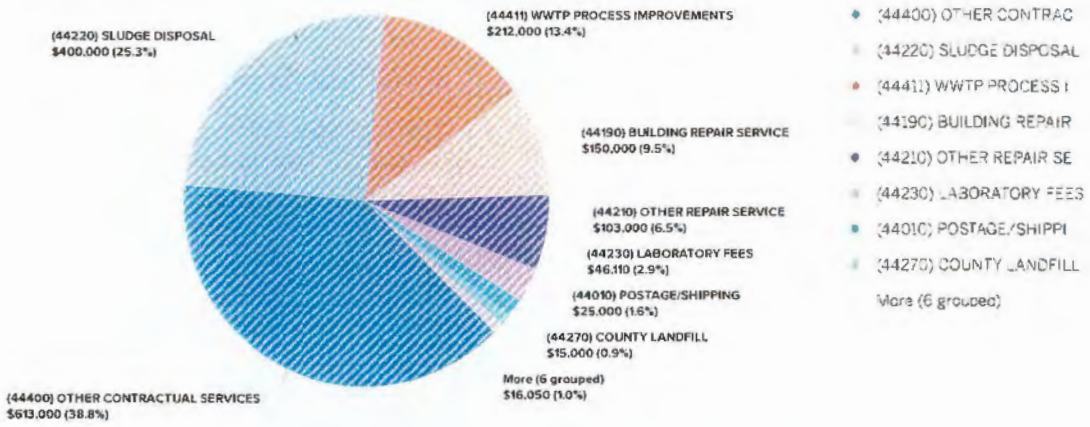
Wastewater Treatment Plant - 440: Revenue by Type - Licenses/Permits



Wastewater Treatment Plant - 440: Expenses by Type



Wastewater Treatment Plant - 440: Expenses by Type - Contractual Services



Wastewater Treatment Plant - 440: Revenues & Expenses

Collapse All	2020 Projected	2020 Amended	2021 Draft	2021 Budget
▸ REVENUES	$ 43,000	$ 43,000	$ 5,675	$ 5,675
▾ LICENSES/PERMITS	3,000	3,000	5,675	5,675
(31250) SEWAGE PERMITS	3,000	3,000	5,675	5,675
▾ SALES/SUNDRY RECEIPTS	40,000	40,000	0	0
(37151) ELECTRIC-DEMAND RESPONSE	40,000	40,000	0	0
▾ EXPENSES	3,122,052	6,626,949	7,530,334	7,530,334
▾ PAYROLL	1,583,028	1,949,054	1,829,666	1,829,666
(40010) SALARIES/WAGES	1,423,296	1,754,304	1,644,916	1,644,916
(40030) OVERTIME	151,615	180,000	165,000	165,000
(40040) SHIFT DIFFERENTIAL	0	11,250	11,250	11,250
(40110) CALL BACK	8,117	3,500	8,500	8,500
▾ FRINGE BENEFITS	118,012	174,903	1,569,802	1,569,802
(41042) O & E PENSION ALLOCATIONS	0	0	299,996	299,996
(41055) HEALTH INSURANCE ALLOCATIONS	0	0	1,000,267	1,000,267
(41010) FICA	118,012	149,103	140,717	140,717
(41101) UNEMPLOYMENT ALLOCATION	0	0	31,698	31,698
(41091) WORKERS COMPENSATION ALLOCATION	0	0	60,908	60,908
(41061) LIFE INSURANCE ALLOCATIONS	0	0	2,415	2,415
(41120) LAUNDRY CLEANING	0	19,000	25,000	25,000
(41130) CLOTHING/SHOES/UNIFORMS/EQUIP	0	6,800	8,800	8,800
▾ PROFESSIONAL SERVICES	0	230,000	845,000	845,000
(42010) ARCHITECT/ENGINEER/CONSULTANT	0	130,000	160,000	160,000
(42070) OTHER PROFESSIONAL SERVICES	0	100,000	685,000	685,000
▾ SPECIAL ITEMS	1,421,012	1,459,092	558,256	558,256
(43010) TRAVEL	0	2,500	1,000	1,000
(43020) TRAINING	0	15,000	25,000	25,000
(43150) INTERFUND TRANSFER	0	20,580	20,580	20,580
(43190) CENTRAL SERVICES ALLOCATIONS	83,141	83,141	103,524	103,524
(43191) INFO SERVICES ALLOCATIONS	100,410	100,410	112,427	112,427
(43192) HUMAN RESOURCES ALLOCATIONS	45,179	45,179	59,837	59,837
(43193) INSURANCE ALLOCATIONS	898,309	898,309	204,132	204,132
(43194) BUSINESS ADMIN ALLOCATIONS	293,974	293,974	31,756	31,756
▾ CONTRACTUAL SERVICES	0	1,669,850	1,580,160	1,580,160
(44010) POSTAGE/SHIPPING	0	20,000	25,000	25,000
(44020) PRINTING/BINDING	0	100	100	100
(44030) ASSOCIATION DUES/CONFERENCES	0	2,000	2,000	2,000
(44040) ADVERTISING	0	500	500	500
(44180) VEHICLE/EQUIPMENT RENTAL	0	5,000	5,000	5,000
(44190) BUILDING REPAIR SERVICE	0	150,000	150,000	150,000
(44200) VEHICLE REPAIR SERVICE	0	7,500	7,500	7,500
(44210) OTHER REPAIR SERVICE	0	111,000	103,000	103,000
(44220) SLUDGE DISPOSAL	0	400,000	400,000	400,000
(44230) LABORATORY FEES	0	50,000	46,110	46,110
(44260) REFUSE DISPOSAL	0	750	950	950

(44270) COUNTY LANDFILL	0	15,000	15,000	15,000
(44310) RADIO COMMUNICATIONS	0	3,000	0	0
(44400) OTHER CONTRACTUAL SERVICES	0	705,000	613,000	613,000
(44411) WWTP PROCESS IMPROVEMENTS	0	200,000	212,000	212,000
▾ SUPPLIES AND MATERIALS	0	922,450	930,450	930,450
(45020) OFFICE/DATA PROCESSING	0	0	2,500	2,500
(45030) HORTICULTURAL SUPPLIES/MATERIA	0	2,500	0	0
(45040) ELECTRICAL SUPPLIES	0	60,500	65,000	65,000
(45060) PAINT & SUPPLIES	0	200	200	200
(45100) PLUMBING SUPPLIES	0	5,000	3,000	3,000
(45110) MEDICAL SUPPLIES	0	1,500	2,500	2,500
(45120) VEHICLE PARTS/ACCESSORIES	0	6,500	8,000	8,000
(45130) VEHICLE FUELS	0	8,000	9,000	9,000
(45140) LUMBER/HARDWARE/BLDG ALTERATIO	0	2,000	2,000	2,000
(45150) STREET/HIGHWAY MATERIAL	0	2,500	0	0
(45160) SIGNS	0	500	0	0
(45170) TOOLS	0	7,000	7,000	7,000
(45200) CEMENT/CONCRETE/STONE	0	750	750	750
(45210) CHEMICALS	0	85,000	85,000	85,000
(45220) POLYMER	0	260,000	260,000	260,000
(45260) LABORATORY SUPPLIES	0	30,000	35,000	35,000
(45280) MACHINERY SUPPLIES	0	380,000	380,000	380,000
(45300) OTHER SUPPLIES/MATERIALS	0	70,000	70,000	70,000
(45310) COPIER/FAX SUPPLIES	0	500	500	500
▾ CAPITAL EQUIPMENT	0	221,600	217,000	217,000
(46101) VEHICLE/LEASE PURCHASE	0	12,600	0	0
(46120) DATA PROCESSING EQUIPMENT	0	27,000	27,000	27,000
(46121) CAPITAL - DP SOFTWARE	0	135,000	135,000	135,000
(46140) LABORATORY EQUIPMENT	0	30,000	40,000	40,000
(46150) PARKS/RECREATION EQUIPMENT	0	1,000	0	0
(46160) SHOP MACHINERY EQUIPMENT	0	1,000	0	0
(46170) OTHER CAPITAL EQUIPMENT	0	15,000	15,000	15,000
Revenues Less Expenses	$ -3,079,052	$ -6,583,949	$ -7,524,659	$ -7,524,659

WWTP

Position Title	Union	2020 FTE Approved	Total 2020 Wages	2021 FTE Requested	Total 2021 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Wastewater Treatment Plant General Manager	NAFF	1	$94,667	1	$91,161	0	-$3,506
Wastewater Treatment Plant Operations Manager	NAFF	1	$67,098	0	$0	-1	-$67,098
Wastewater Treatment Plant Operations Shift Supervisor	NAFF	3	$165,702	3	$159,578	0	-$6,124
Wastewater Treatment Plant Maintenance Supervisor	NAFF	1	$57,896	1	$55,744	0	-$2,152
Plant Operator II	TEAM	14	$746,746	14	$737,066	0	-$9,680
Maintenance Mechanic II	TEAM	6	$308,541	6	$304,541	0	-$4,000
Senior Chemist	NAFF	1	$62,804	1	$60,478	0	-$2,326
Chemist	NAFF	3	$164,434	3	$152,068	0	-$12,365
Administrative Assistant	NAFF	1	$42,531	1	$40,955	0	-$1,576
Data Entry Clerk	YPEA	1	$43,884	1	$43,324	0	-$560
Total		32	$1,754,304	31	$1,644,916	-1	-$109,388

Employee Totals		
NAFF		10
Full Time	10	
TEAM		20
Full Time	20	
YPEA		1
Full Time	1	
Total		31

Fund	
61	$1,644,916
Grand Total	$1,644,916

Bureau of Municipal Industrial Pretreatment Program (MIPP)

Department of Public Works

Overview

The Bureau is dedicated to providing effective and equitable enforcement of federal and local industrial wastewater regulations. The Bureau goal is to protect the environment, health of regional residents and workers, condition of the sanitary sewer system, and wastewater treatment plant processes. The Bureau will accomplish this through the consistent application of regulations and policies, purposeful sampling and inspection activities, and keeping abreast of changes in regulations and industrial processes.

2020 Accomplishments

1. Met PADEP Chapter 94 Municipal Wasteload Management annual reporting requirements.
2. Met USEPA pretreatment program annual reporting requirements.
3. Completed required sampling, inspection, and program requirements despite complications introduced by both the global pandemic and the months-long effects from the physical attack of City's computer system, and being down one staff person for the entire year.
4. Invoiced over $500,000 in surcharge costs and analytical costs.
5. Assisted with submission of the annual Air Inventory Management System (AIMS) report associated with the treatment plant's State-issued air permit and the treatment plant's Emergency Response Plan components.

2021 Goals & Objectives

1. Meet PADEP Chapter 94 Municipal Wasteload Management annual reporting requirements.The pretreatment program will meet USEPA pretreatment program annual reporting requirements.
2. Meet sampling, inspection, and pretreatment program requirements.
3. Staff will complete continuing education requirements to maintain Pennsylvania wastewater operator's licensure.
4. Staff will complete the USEPA multi-year local limits evaluation project.

2021 Revenue & Expense Changes

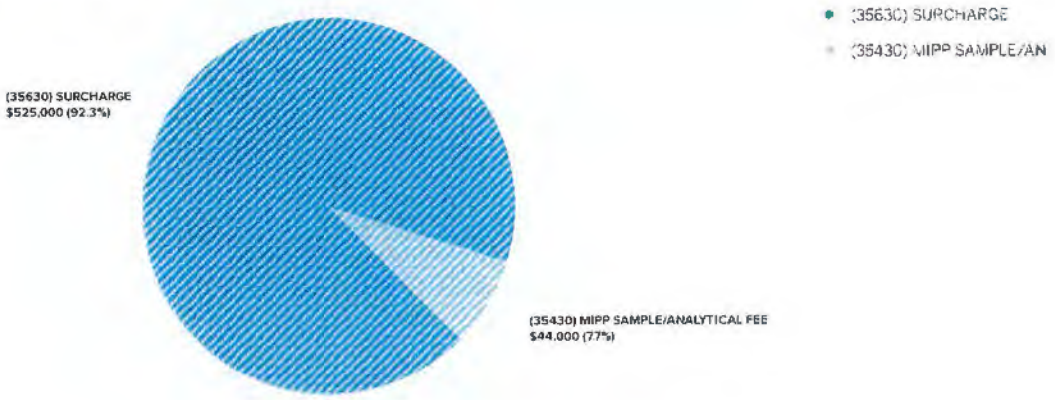
Revenue:

1. $1,000 decrease in from revenue is expected for Sampling/Analytical Fees.
2. $25,000 decrease in revenue is expected from Surcharge due to industry closure and/or changes in industry processes.

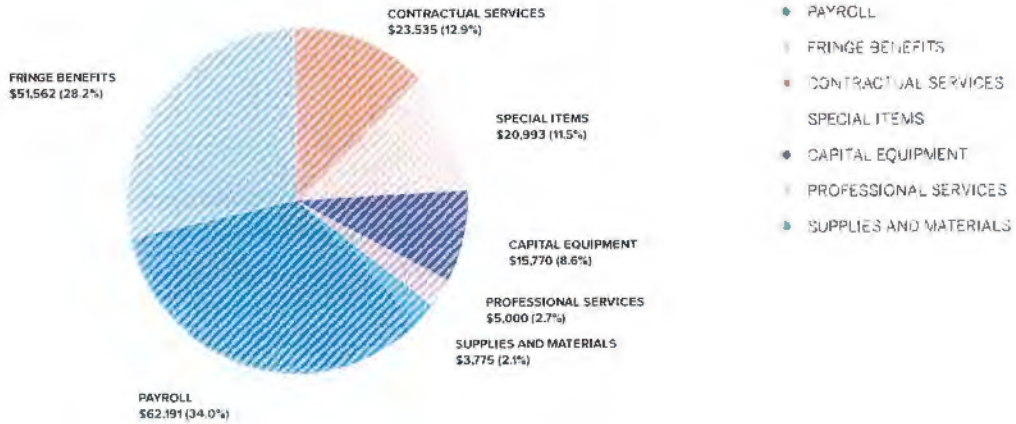
Expense:

1. An increase from $7,500 to $18,950 is expected in Laboratory Fees.
2. Vehicle associated costs (Vehicle Repair Service, Vehicle Parts/Accessories, Vehicle Fuels) all nominally decrease due to leasing a new vehicle.
3. Laboratory Supplies decreases from $4,000 to $2,720 to more accurately reflect anticipated costs.
4. Other Supplies/Materials decreases from $665 to $175 to more accurately reflect expected costs.
5. Association Dues/Conferences increases slightly from $700 to $960 to more accurately reflect expected costs.

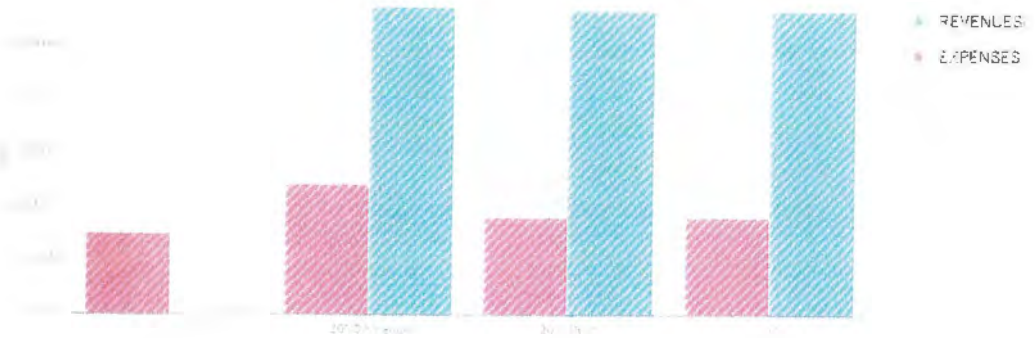
Municipal Industrial Pretreatment Program - 441: Revenue by Type - Charges for Services



Municipal Industrial Pretreatment Program - 421: Expenses by Type



Municipal Industrial Pretreatment Program - 441: Revenues & Expenses



Collapse All	2020 Projected	2020 Amended	2021 Draft	2021 Budget
REVENUES	$0	$595,000	$569,000	$569,000
CHARGES FOR SERVICES	0	595,000	569,000	569,000
(35430) MIPP SAMPLE/ANALYTICAL FEE	0	45,000	44,000	44,000
(35630) SURCHARGE	0	550,000	525,000	525,000
EXPENSES	150,176	244,428	182,826	182,826
PAYROLL	64,024	114,635	62,191	62,191
(40010) SALARIES/WAGES	62,900	112,885	60,694	60,694
(40030) OVERTIME	1,124	1,750	1,497	1,497
FRINGE BENEFITS	4,770	8,770	51,562	51,562
(41042) O & E PENSION ALLOCATIONS	0	0	11,069	11,069
(41055) HEALTH INSURANCE ALLOCATIONS	0	0	32,267	32,267
(41010) FICA	4,770	8,770	4,643	4,643
(41101) UNEMPLOYMENT ALLOCATION	0	0	1,170	1,170
(41091) WORKERS COMPENSATION ALLOCATION	0	0	2,322	2,322
(41061) LIFE INSURANCE ALLOCATIONS	0	0	91	91
PROFESSIONAL SERVICES	0	5,000	5,000	5,000
(42010) ARCHITECT/ENGINEER/CONSULTANT	0	5,000	5,000	5,000
SPECIAL ITEMS	81,382	82,382	20,993	20,993
(43020) TRAINING	0	1,000	590	590
(43190) CENTRAL SERVICES ALLOCATIONS	11,832	11,832	10,822	10,822
(43191) INFO SERVICES ALLOCATIONS	7,140	7,140	3,513	3,513
(43192) HUMAN RESOURCES ALLOCATIONS	2,824	2,824	1,870	1,870
(43193) INSURANCE ALLOCATIONS	41,213	41,213	3,205	3,205
(43194) BUSINESS ADMIN ALLOCATIONS	18,373	18,373	992	992
CONTRACTUAL SERVICES	0	11,900	23,535	23,535
(44010) POSTAGE/SHIPPING	0	400	400	400
(44030) ASSOCIATION DUES/CONFERENCES	0	700	960	960
(44040) ADVERTISING	0	1,000	1,000	1,000
(44190) BUILDING REPAIR SERVICE	0	300	300	300
(44200) VEHICLE REPAIR SERVICE	0	500	250	250
(44230) LABORATORY FEES	0	7,500	18,950	18,950
(44400) OTHER CONTRACTUAL SERVICES	0	1,500	1,675	1,675
SUPPLIES AND MATERIALS	0	6,015	3,775	3,775
(45020) OFFICE/DATA PROCESSING	0	0	180	180
(45120) VEHICLE PARTS/ACCESSORIES	0	350	150	150
(45130) VEHICLE FUELS	0	1,000	550	550
(45260) LABORATORY SUPPLIES	0	4,000	2,720	2,720
(45300) OTHER SUPPLIES/MATERIALS	0	665	175	175
CAPITAL EQUIPMENT	0	15,725	15,770	15,770
(46101) VEHICLE/LEASE PURCHASE	0	5,390	5,390	5,390
(46120) DATA PROCESSING EQUIPMENT	0	5,585	5,780	5,780
(46140) LABORATORY EQUIPMENT	0	4,750	4,600	4,600
Revenues Less Expenses	$-150,176	$350,572	$386,174	$386,174

MIPP

Position Title	Union	2020 FTE Approved	Total 2020 Wages	2021 FTE Requested	Total 2021 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Pretreatment Permit/Compliance Manager	NAFF	1	$63,033	1	$60,694	0	-$2,338
Compliance Officer II	NAFF	1	$49,853	0	$0	-1	-$49,853
Total		2	$112,885	1	$60,694	-1	-$52,191

Employee Totals	
NAFF	1
Full Time	1
Total	1

Fund	
61	$60,694
Grand Total	$60,694

Bureau of Sewer Maintenance

Department of Public Works

Overview

The Bureau is responsible for the maintenance and repair of over 520,000 linear feet of sewer lines located within the City. The sewer system is a critical component in the operations of the York City Wastewater Treatment Plant (WWTP). The system conveys the wastewater generated by sewer users in the City, and portions of seven (7) other municipalities, to the WWTP for treatment.

2020 Accomplishments

1. 3 employees obtained Department Environmental Protection (DEP) Collection Accreditation Certifications
2. Completed 4 laterals dig up and repairs
3. A new CS21 communication system put in at the pump station
4. Responded to 142 SUNSHINE emergency calls
5. Flushed 1/3 of the total city sewer lines (90 miles of sewage)
6. Provided educational pamphlets and letters to the public to help understand what should and should not go into our sewer system.
7. Provided daily help to Columbia Gas, who hired USG to televise our pipes for coverage of potential borrowing through the sewer pipes.
8. Created a strong focused on restaurant and well-known high grease and rag areas to help prevent on surface sewer overflows, which creates costly clean-ups.

2021 Goals & Objectives

1. Continue flushing the remaining 2/3's of City sewer lines
2. Review with Buchart Horn the results from USG's compact disc's for sewer line closed captioned televising
3. Explore a more accurate PA 1 CALL mapping system. This will help us identify our sewer system.
4. Use training monies to get the remaining employees up to speed with their DEP Certifications
5. Continue to provide educational material to our clients

2021 Revenue & Expense Changes

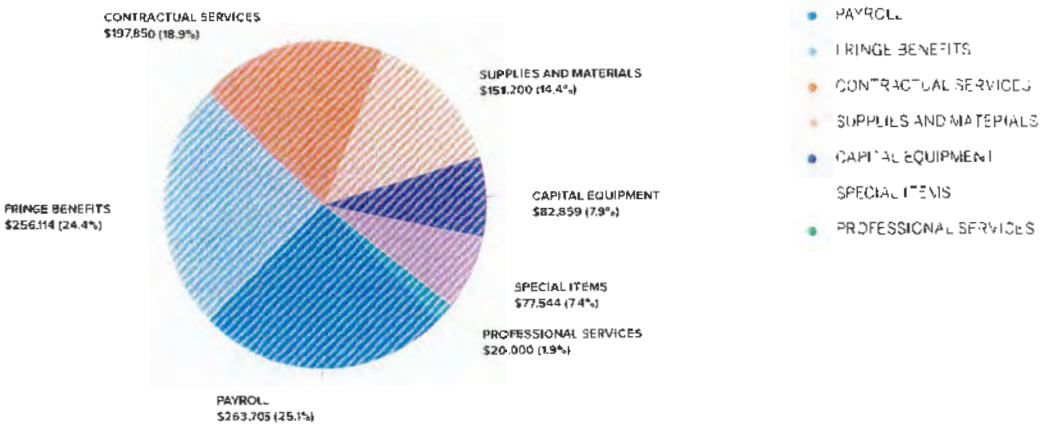
Revenue:

1. No significant increse or decrease

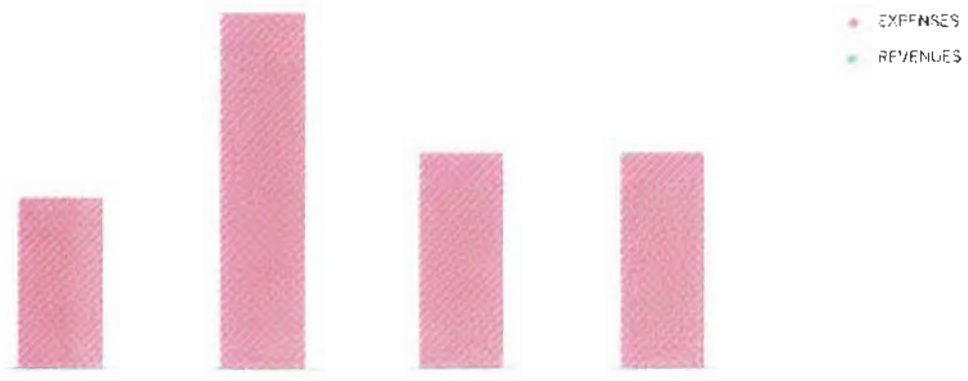
Expense:

1. Reduced overall expenses by $500,000

Sewer Maintenance - 422: Expenses by Type



Sewer Maintenance - 422: Revenues & Expenses



Collapse All	2020 Projected	2020 Amended	2021 Draft	2021 Budget
▾ EXPENSES	$834,159	$1,770,540	$1,049,272	$1,049,272
▾ PAYROLL	329,704	373,939	263,705	263,705
(40010) SALARIES/WAGES	320,862	355,139	250,180	250,180
(40030) OVERTIME	2,310	6,500	3,500	3,500
(40040) SHIFT DIFFERENTIAL	0	50	25	25
(40110) CALL BACK	6,532	12,250	10,000	10,000
▾ FRINGE BENEFITS	31,043	34,106	256,114	256,114
(41042) O & E PENSION ALLOCATIONS	0	0	45,627	45,627
(41055) HEALTH INSURANCE ALLOCATIONS	0	0	161,333	161,333
(41010) FICA	24,563	28,606	27,823	27,823
(41101) UNEMPLOYMENT ALLOCATION	0	0	4,821	4,821
(41091) WORKERS COMPENSATION ALLOCATION	0	0	9,572	9,572
(41061) LIFE INSURANCE ALLOCATIONS	0	0	378	378
(41120) LAUNDRY CLEANING	4,800	3,500	4,000	4,000
(41130) CLOTHING/SHOES/UNIFORMS/EQUIP	1,680	2,000	2,560	2,560
▾ PROFESSIONAL SERVICES	10,000	45,000	20,000	20,000
(42010) ARCHITECT/ENGINEER/CONSULTANT	10,000	20,000	20,000	20,000
(42011) ENGINEERING	0	25,000	0	0
▾ SPECIAL ITEMS	301,105	326,505	77,544	77,544
(43020) TRAINING	180	5,000	5,000	5,000
(43150) INTERFUND TRANSFER	0	20,580	0	0
(43190) CENTRAL SERVICES ALLOCATIONS	26,236	26,236	25,619	25,619
(43191) INFO SERVICES ALLOCATIONS	19,636	19,636	17,567	17,567
(43192) HUMAN RESOURCES ALLOCATIONS	9,883	9,883	9,350	9,350
(43193) INSURANCE ALLOCATIONS	180,863	180,863	15,047	15,047
(43194) BUSINESS ADMIN ALLOCATIONS	64,307	64,307	4,962	4,962
▾ CONTRACTUAL SERVICES	36,018	199,575	197,850	197,850
(44010) POSTAGE/SHIPPING	533	1,500	1,000	1,000
(44050) TELEPHONE	435	475	500	500
(44170) BUILDING RENT	21,500	21,500	21,500	21,500
(44180) VEHICLE/EQUIPMENT RENTAL	0	950	950	950
(44190) BUILDING REPAIR SERVICE	1,000	2,000	2,000	2,000
(44200) VEHICLE REPAIR SERVICE	5,300	25,000	25,000	25,000
(44210) OTHER REPAIR SERVICE	1,000	1,900	1,900	1,900
(44400) OTHER CONTRACTUAL SERVICES	1,250	141,250	140,000	140,000
(44410) FLOOD PUMP STATIONS	5,000	5,000	5,000	5,000
▾ SUPPLIES AND MATERIALS	59,930	157,150	151,200	151,200
(45060) PAINT & SUPPLIES	3,000	4,000	2,000	2,000
(45090) BOOKS/SUBSCRIPTIONS	500	500	500	500
(45110) MEDICAL SUPPLIES	500	500	500	500
(45120) VEHICLE PARTS/ACCESSORIES	9,750	32,500	32,500	32,500
(45130) VEHICLE FUELS	3,000	8,000	9,000	9,000
(45131) STATIONARY ENGINE FUELS	1,500	1,500	1,500	1,500
(45140) LUMBER/HARDWARE/BLDG ALTERATIO	0	50	100	100

(45150) STREET/HIGHWAY MATERIAL	0	500	500	500
(45170) TOOLS	2,500	5,000	5,000	5,000
(45200) CEMENT/CONCRETE/STONE	0	5,000	0	0
(45210) CHEMICALS	1,000	1,000	1,000	1,000
(45230) SANITARY SEWER SUPPLIES	5,000	28,500	28,500	28,500
(45231) SANITARY SEWER-EMERGENCY REPAIRS	32,500	65,000	65,000	65,000
(45280) MACHINERY SUPPLIES	0	100	100	100
(45300) OTHER SUPPLIES/MATERIALS	680	5,000	5,000	5,000
▾ CAPITAL EQUIPMENT	66,359	134,265	82,859	82,859
(46101) VEHICLE/LEASE PURCHASE	64,859	116,765	64,859	64,859
(46120) DATA PROCESSING EQUIPMENT	500	1,000	1,000	1,000
(46121) CAPITAL - DP SOFTWARE	1,000	1,500	2,000	2,000
(46170) OTHER CAPITAL EQUIPMENT	0	15,000	15,000	15,000
▾ CAPITAL CONSTRUCTION	0	500,000	0	0
(47120) CONSTRUCTION	0	500,000	0	0
Revenues Less Expenses	$ -834,159	$ -1,770,540	$ -1,049,272	$ -1,049,272

Sewer Maintenance

Position Title	Union	2020 FTE Approved	Total 2020 Wages	2021 FTE Requested	Total 2021 Wages	FTE Increase/ (Decrease)	Wages Increase/ (Decrease)
Sewer Maintenance Supervisor	NAFF	1	$54,124	1	$52,104	0	-$2,020
WW Collection Operator I	TEAM	3	$144,419	2	$95,031	-1	-$49,388
WW Collection Operator II	TEAM	3	$156,596	2	$103,044	-1	-$53,552
Total		7	$355,139	5	$250,180	-2	-$104,960

Employee Totals		
NAFF		1
Full Time	1	
TEAM		4
Full Time	4	
Total		5

Fund	
60	$250,180
Grand Total	$250,180

Jerry Weinert

From: Scott D Fogelsanger <Scott.Fogelsanger@amwater.com>
Sent: Friday, June 11, 2021 8:56 AM
To: Jerry Weinert
Subject: City of York - 2021-Proposed-Budget
Attachments: 2021-Proposed-Budget.pdf

Jerry,

I searched the City's website 1 last time to try & find the 2021 Budget. I found a new area on their website & ta da here is the 2021 Budget.

Thanks,

Scott D. Fogelsanger
Senior Manager – Business Development
Pennsylvania-American Water Company

852 Wesley Drive
Mechanicsburg, PA 17055
717-550-1509 (office)
717-875-2282 (cell)
Scott.Fogelsanger@amwater.com

Customers

Appendix A-5-1 (AUS)

Municipality	Residential	Commercil / Industrial	Total
City of York	17,360	1,302	18,662
Manchester Township	3,834	129	3,963
North York	718	64	782
Spring Garden Township	3,463	235	3,698
West Manchester Township	2,180	318	2,498
West York Borough	1,510	160	1,670
York Township	3,012	205	3,217
Total	32,077	2,413	34,490
Treatment Only	14,717	1,111	15,828

Municipal Secondary Market Disclosure
Cover Sheet

Filing Date: October 2, 2019
Issuer: York City Sewer Authority York County, PA

CUSIP: 986863

Fiscal Period Ending: December 31, 2018

Contact Information
Name: Diane Lando
Employer: Concord Public Financial Advisors, Inc.
Address: 2909 Windmill Road, Suite 6
City, State, Zip: Reading, PA 19608
Phone: 610-376-4100
Email: concord@concordpublicfinance.com
Filer type: Dissemination Agent

2018 Number of Sewer Customers

Municipality	Residential	Commercial/ Industrial	Total	Percentage Residential
City of York	17,360	1,302	18,662	93.03%
Manchester Township	3,834	129	3,963	96.75%
North York Borough	718	64	782	91.82%
Spring Garden Township	3,463	235	3,698	93.65%
West Manchester Township	2,180	318	2,498	87.27%
West York Borough	1,510	160	1,670	90.42%
York Township	3,012	205	3,217	93.63%
Total:	32,077	2,413	34,490	93.01%

2018 Top 10 Sewer Customers

	Gallons Used
1. York Hospital	38,766,400
2. Engie Insight Services, Inc.	15,109,000
3. Sunrise Holdings LP	8,008,700
4. City of York School District	6,715,300
5. Dentsply Co.	5,166,600
6. Colony Park	5,007,300
7. Yorktowne House	4,820,300
8. County of York	4,804,300
9. Wingate Management Co.	4,505,000
10. IWM International LLC	4,467,300

Jerry Weinert

From: Scott D Fogelsanger <Scott.Fogelsanger@amwater.com>
Sent: Thursday, June 10, 2021 7:21 PM
To: Jerry Weinert
Subject: RE: Discussions regarding York Wastewater (Weekly Update)
Attachments: City Of York February 2021 Sewer Billing.xlsx

Jerry,

Totally frustrated with York. See below comments received a short while ago. The sewer billing that was sent probably doesn't account for "not sent out" bills due to misreads, estimates, stuck meters, etc. that may go out in the near future as edits are made. Can't play around with this anymore.

- So I'm making the final call that the attached that was sent to both you & Dylan be used as the support for the City of York customers of 13,733.
- For the municipal feeder systems, the customer counts for those will need based on your judgement of the various docs. that list bits & pieces of info. for these.
- If they don't provide the 2021 Budget early tomorrow morning. I'd suggest using the 2020 budget #s that you already incorporated since that will be the most current one available at that time.

I'm sure you have some questions & want to blow off some steam with these last minute issues.

Thanks,

cott D. Fogelsanger
enior Manager – Business Development
Pennsylvania-American Water Company

852 Wesley Drive
Mechanicsburg, PA 17055
717-550-1509 (office)
717-875-2282 (cell)
Scott.Fogelsanger@amwater.com

From: Thomas Ray <TRay@yorkcity.org>
Sent: Thursday, June 10, 2021 5:39 PM
To: Scott D Fogelsanger <Scott.Fogelsanger@amwater.com>; Bakare, Adeolu <ABakare@mcneeslaw.com>; vkarandrikas@mcneeslaw.com; jthompson@mcneeslaw.com; Daniel Hevner <DHevner@yorkcity.org>; Jason Sabol <JSabol@yorkcity.org>
Cc: Jana R Hurst <Jana.Hurst@amwater.com>; Susan S Marsh <Susan.Marsh@amwater.com>; Michael Salvo <Michael.Salvo@amwater.com>; Brian A Ardire <Brian.A.Ardire@amwater.com>; Bernard J Grundusky <Bernie.Grundusky@amwater.com>; Jody E Watts <Jody.Watts@amwater.com>; Jason Sabol <JSabol@yorkcity.org>; Chaz Green <CGreen@yorkcity.org>; Daniel Hevner <DHevner@yorkcity.org>
Subject: RE: Discussions regarding York Wastewater (Weekly Update)

EXTERNAL EMAIL: The Actual Sender of this email is TRay@yorkcity.org "Think before you click!".

Scott.

- City of York's current number of customers by rate classification *Response: York Water show 13,370 sewer bills were sent out for May 2021 (see attachment). There is only one (1) rate charges for sewer billing. The City does not differentiate between residential and commercial for sewer billing.*
- Number of current customers for each municipality that send flows to York. *Response: The City does not have this information.*
- 2021 Budget. See attached 2021 Treatment Cost Spreadsheet that was provided. Need to the budget that breakdown the 2021 lump sum budget #s for revenues and expenses. *Response: Will send under separate cover..*

Thanks.

Working with you for a Better York

Thomas Allen Ray
Business Administrator
Department of Business Administration
City of York
101 South George Street, 2nd Floor
P. O. Box 509
York, Pennsylvania 17405
Phone: 717.849.2323
.x: 717.848.3590
www.yorkcity.org

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From: Scott D Fogelsanger <Scott.Fogelsanger@amwater.com>
Sent: Thursday, June 10, 2021 1:05 PM
To: Bakare, Adeolu <ABakare@mcneeslaw.com>; vkarandrikas@mcneeslaw.com; jthompson@mcneeslaw.com; Daniel Hevner <DHevner@yorkcity.org>; Jason Sabol <JSabol@yorkcity.org>; Thomas Ray <TRay@yorkcity.org>
Cc: Jana R Hurst <Jana.Hurst@amwater.com>; Susan S Marsh <Susan.Marsh@amwater.com>; Michael Salvo <Michael.Salvo@amwater.com>; Brian A Ardire <Brian.A.Ardire@amwater.com>; Bernard J Grundusky <Bernie.Grundusky@amwater.com>; Jody E Watts <Jody.Watts@amwater.com>
Subject: RE: Discussions regarding York Wastewater (Weekly Update)

Summary of what AUS needs for their appraisal:

- City of York's current number of customers by rate classification.
- Number of current customers for each municipality that send flows to York.

- 2021 Budget. See attached 2021 Treatment Cost Spreadsheet that was provided. Need to the budget that breakdown the 20201 lump sum budget #s for revenues and expenses.

Scott D. Fogelsanger
Senior Manager – Business Development
Pennsylvania-American Water Company

852 Wesley Drive
Mechanicsburg, PA 17055
717-550-1509 (office)
717-875-2282 (cell)
Scott.Fogelsanger@amwater.com

From: Scott D Fogelsanger
Sent: Thursday, June 10, 2021 12:14 PM
To: Bakare, Adeolu <ABakare@mcneeslaw.com>; vkarandrikas@mcneeslaw.com; jthompson@mcneeslaw.com; Daniel Hevner <DHevner@yorkcity.org>; Jason Sabol <JSabol@yorkcity.org>; Thomas Ray <TRay@yorkcity.org>
Cc: Jana R Hurst <Jana.Hurst@amwater.com>; Susan S Marsh <Susan.Marsh@amwater.com>; Michael Salvo <Michael.Salvo@amwater.com>; Brian A Ardire <Brian.A.Ardire@amwater.com>; Bernard J Grundusky <Bernie.Grundusky@amwater.com>; Jody E Watts <Jody.Watts@amwater.com>
Subject: RE: Discussions regarding York Wastewater (Weekly Update)

In addition, is it possible to provide the number of customers that each municipality has that send WW flows to the City?

Scott D. Fogelsanger
Senior Manager – Business Development
Pennsylvania-American Water Company

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717-875-2282 (cell)
Scott.Fogelsanger@amwater.com

From: Scott D Fogelsanger
Sent: Thursday, June 10, 2021 10:43 AM
To: Bakare, Adeolu <ABakare@mcneeslaw.com>; vkarandrikas@mcneeslaw.com; jthompson@mcneeslaw.com; Daniel Hevner <DHevner@yorkcity.org>; Jason Sabol <JSabol@yorkcity.org>; Thomas Ray <TRay@yorkcity.org>
Cc: Jana R Hurst <Jana.Hurst@amwater.com>; Susan S Marsh <Susan.Marsh@amwater.com>; Michael Salvo <Michael.Salvo@amwater.com>; Brian A Ardire <Brian.A.Ardire@amwater.com>; Bernard J Grundusky <Bernie.Grundusky@amwater.com>; Jody E Watts <Jody.Watts@amwater.com>
Subject: RE: Discussions regarding York Wastewater (Weekly Update)

All,

Please let me know when the current number of wastewater customers that reside inside the City limits will be provided. AUS needs this ASAP to prepare their final draft appraisal.

Thanks,

Scott D. Fogelsanger
Senior Manager – Business Development

Pennsylvania-American Water Company

852 Wesley Drive
Mechanicsburg, PA 17055
7-550-1509 (office)
717-875-2282 (cell)
Scott.Fogelsanger@amwater.com

-----Original Appointment-----
From: Jana R Hurst <Jana.Hurst@amwater.com>
Sent: Monday, April 12, 2021 9:30 AM
To: Jana R Hurst; Susan S Marsh; Bakare, Adeolu; Michael Salvo; vkarandrikas@mcneeslaw.com; jthompson@mcneeslaw.com; Brian A Ardire; Bernard J Grundusky; Scott D Fogelsanger; Jody E Watts
Cc: Thomas Ray; Jason Sabol; Daniel Hevner
Subject: Discussions regarding York Wastewater (Weekly Update)
When: Wednesday, June 9, 2021 1:00 PM-1:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Weekly Update on York Wastewater Acquisition between PAWC/York Teams on 1329 Application

Microsoft Teams meeting

Join on your computer or mobile app
ck here to join the meeting

Join with a video conferencing device
466610253@t.plcm.vc
ideo Conference ID: 116 993 148 0
Alternate VTC dialing instructions

Or call in (audio only)
+1 862-294-2638,,937610782# United States, Newark
Phone Conference ID: 937 610 782#
Find a local number | Reset PIN

Learn More | Meeting options

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www.amwater.com

Rates

S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

City of York
Wastewater Rates

Ordinance No.	Date Passed	Previous Rate	New Rate	% of Increase	Minimum Charge	% Change	Minimum Gallons	% Change
15	11/20/2001	4.15	4.33	4.34%	11.26		2600	
63	11/21/2006	4.33	4.6	6.24%	12	6.57%	2600	0.00%
42	11/20/2007	4.6	5	8.70%	12.5	4.17%	2600	0.00%
51	11/18/2008	5	6	20.00%	18	44.00%	3000	15.38%
2	1/19/2010	6	6.5	8.33%	18	0.00%	2800	-6.67%
33	11/16/2010	6.5	7.5	15.38%	18	0.00%	2400	-14.29%
44	11/15/2011	7.5	8.25	10.00%	18	0.00%	2180	-9.17%
29	11/18/2014	8.25	8.75	6.06%	18	0.00%	2057	-5.64%
24	11/15/2016	8.75	9.15	4.57%	18	0.00%	1865	-9.33%
2	1/3/2017	9.15	9.1	-0.55%	18	0.00%	1978	6.06%
~~17~~	~~11/17/2020~~	~~9.1~~	~~9.37~~	~~2.97%~~	~~18~~	~~0.00%~~	~~1920~~	~~-2.93%~~
	11/17/2020	9.1	12.85	41.21%	18		1400	37.14%
	Average			6.62%				

Ordinance No.	Date Passed	Previous Rate	New Rate	% of increase	Minimum Charge	% Change	Minimum Gallons	% Change
15	11/20/2001	$ 4.15	$ 4.33	4.34%	$ 11.26		2,600	
63	11/21/2006	$ 4.33	$ 4.60	6.24%	$ 12.00	6.572%	2,600	0.00%
42	11/20/2007	$ 4.60	$ 5.00	8.70%	$ 12.50	4.167%	2,600	0.00%
51	11/18/2008	$ 5.00	$ 6.00	20.00%	$ 18.00	44.000%	3,000	15.38%
2	1/19/2010	$ 6.00	$ 6.50	8.33%	$ 18.00	0.000%	2,800	-6.67%
33	11/16/2010	$ 6.50	$ 7.50	15.38%	$ 18.00	0.000%	2,400	-14.29%
44	11/15/2011	$ 7.50	$ 8.25	10.00%	$ 18.00	0.000%	2,180	-9.17%
29	11/18/2014	$ 8.25	$ 8.75	6.06%	$ 18.00	0.000%	2,057	-5.64%
24	11/15/2016	$ 8.75	$ 9.15	4.57%	$ 18.00	0.000%	1,865	-9.33%
2	1/3/2017	$ 9.15	$ 9.10	-0.55%	$ 18.00	0.000%	1,978	6.06%
17	11/17/2020	$ 9.10	$ 9.37	2.97%	$ 18.00	0.000%	1,920	-2.93%
			$ 5.04	116.40%	$ 6.74	59.86%		
Average % Rate Incresae				7.82%				

Amended Bill No. 18, Ordinance No. 17, Session 2020

ARTICLE 933
Sewer Rentals

CROSS REFERENCES

Power to impose and collect sewer rentals - see 3rd Class §3211 et seq. (53 P.S. §38211 et seq.)
Industrial wastes - see 25 Pa. Code Ch. 97
Admission of industrial wastes - see S. U. & P. S. 931.03
Sewer connections outside City - see S. U. & P. S. 931.25

933.01 DEFINITIONS.

The following words and terms, when used in this article, shall have the following meanings, unless the context clearly indicates otherwise:

(a) "Authority" means the York City Sewer Authority.

(b) "City" means the City of York.

(c) "Council" means the group of elected officials acting as the governing body of the City.

(d) "Commercial use" means a property which is intended to be used for the purpose of carrying on a trade, business or profession, or for social, religious, educational, charitable or public uses.

(e) "Domestic use" means a property which is intended to be used for continuous or periodic habitation by human beings or animals.

(f) "Industrial use" means a property which is intended to be used in whole or in part for the manufacture, conversion, processing, cleaning, laundering or assembly of any product, commodity or article.

(g) "Industrial waste" means the liquid, gaseous or water borne wastes from industrial processes or commercial establishments as distinct from sanitary sewage.

(h) "Sanitary sewage" means the normal water-carried household and toilet wastes from residences, business buildings, institutions, commercial and industrial establishments.

(i) "Sewer system" means all facilities for collection, treating and disposing of industrial waste and sanitary sewage.

(j) "Uncontaminated water" means clean water unmixed with and free of any foreign matter whatsoever.

(k) "Water Company" means the York Water Company, it successors and assigns. (Ord. 7-1954 §1.)

933.02 IMPOSITION OF SEWER RENT.

There is hereby imposed upon the owner of each property located within the City limits, served by the sewer system and having the use thereof, an annual sewer rent, payable as hereinafter provided, for use, whether direct or indirect of the sewer system, based on the rates and in accordance with the classifications hereinafter set forth.
(Ord. 7-1954 §2.)

933.03 ANNUAL SANITARY SEWER RATES.

Rates for Domestic and Commercial Metered Water Users. All persons owning property used for domestic or commercial purposes which property is connected to the sewer system and served with metered water service by the Water Company shall pay a monthly rental for sanitary sewage service based on quantity of water used as evidenced by meter readings of water meters installed and maintained by the Water Company for the purpose of measuring water purchased from such Water Company and such other meters as may be installed pursuant to the provisions of this article, and subject to the minimum charges hereinafter provided as follows:

(a) Monthly Quantity Charge.
For each 1000 gallons per month: ~~$9.10~~ **$9.37**

(b) Minimum Charge. All domestic and commercial users shall pay a minimum charge of $18.00 per month which shall entitle such users to ~~1,978~~ **1920** gallons per month sewer service.
(Ord. 2-2017. Passed 1-17-17.)

933.04 INDUSTRIAL WASTE CHARGE.

(a) Sewer Rent or Charge for Industrial Wastes. The sewer rent or charge for the collection and treatment of industrial wastes discharged into the sewer system by industrial users, shall be a quarterly charge based upon the water consumption, adjusted for that portion determined to be sanitary sewage, of the property served and shall be computed at the following standard metered rates:

For each 1000 gallons per month: ~~$9.10~~ **$9.37**

(Ord. 2-2017. Passed 1-17-17.)

(b) Sewer Rental Surcharge for Industrial Wastes. (EDITOR'S NOTE: This subsection was repealed by Ordinance 15-1987, passed May 5, 1987. See Section 931.10 for relevant provisions.)

(c) Methods of Measuring Volume of Industrial Wastes.

(1) Whenever a person purchasing all water used from the Water Company discharges only industrial waste to the sewer system, the volume of water purchased shall be used as a measure of the quantity of industrial waste discharged.

(2) Whenever a person purchasing all water used from the Water Company discharges combined sanitary sewage and industrial waste to the sewer system, the volume of water purchased chargeable as industrial waste shall be the total volume of water purchased less the volume of water determined to be sanitary sewage. The volume of water determined to be sanitary sewage shall be determined in either of the following ways:

A. Actual measured flows;

B. By multiplying the average number of employees in the establishment during the preceding billing period by 2,000 gallons per quarter.

(3) Whenever a person purchasing water from the Water Company and discharging industrial waste to the sewer system also discharges uncontaminated water to either a separate storm sewer or other outlet, an allowance for the amount of water so discharged shall be made in computing the sewer charges. The person so discharging uncontaminated water shall at his own expense install a meter or meters, as required, to indicate accurately to the satisfaction of Council the amount of water claimed as a credit.

(4) Whenever a person using a private water supply discharges industrial wastes to the sewer system, the charges for such discharge shall be in accordance with Section 933.04(a). Such person, however, shall install at his expense either a water meter or meters, as may be required, to measure the total volume of water used in the industrial plant; or shall install, at his expense, meters, as required, on the sewer line or lines leaving the plant so as to measure the entire flow of waste discharged to the sewer system. No meter for measurement either of the water or sewage shall be installed until a plan for such installation is submitted to Council or its designated representative, and approved as satisfactory. All meters or other measuring devices installed or required to be used under any provision of this article shall be under the control of Council, and may be tested, inspected or repaired by City employees whenever Council deems it necessary. The owner of the property upon which such measuring device is installed shall be responsible for its maintenance and safekeeping and all repairs thereto shall be made at the prop

erty owner's expense, whether such repairs are made necessary by ordinary wear and tear or other causes. Bills for such repairs, if made by the City, shall be due and payable at the same time, and collected in the same manner as are the bills for sewer services; such bills from and after their due date shall constitute a lien upon the property upon which such measuring device is installed.

(5) Council shall be responsible for the reading of water and/or sewage meters when installed in industrial establishments. Where in the opinion of Council it is not necessary to install a meter, measurements of the discharge to the sewer system shall be made quarterly by the City, and the measurements so made shall be used for determining the sewer rental or charge for that quarter. Any person dissatisfied with the sewer rate so determined may, at his own cost, install a meter or meters as provided in paragraph (4) of this subsection. (Ord. 15-1972 §4.)

933.05 SEWAGE FROM OUTSIDE OF CITY.

No sanitary sewage or industrial wastes shall be received into the sewer system from sources outside the City limits except upon payments therefor as may be satisfactory to Council. (Ord. 7-1954 §5.)

933.06 ADDITIONAL CLASSIFICATIONS AND MODIFICATIONS.

Additional classifications and additional sewer rentals or modifications of the above schedules of sewer rentals may be established by the City from time to time. (Ord. 7-1954 § 6.)

933.07 TIME OF PAYMENT AND PENALTIES.

(a) The sewer rents under Sections 933.03 and 933.04 shall be a monthly rental for which bills will be rendered by the 25th day of each month. Bills to sewer users having water meters shall be billed monthly and be based upon the metered water consumed in the previous month.

(b) The following penalties, fees and costs shall be imposed:

(1) A penalty of one and one-half percent (1.5%) per month shall be added to each bill for each month during which a bill remains unpaid after thirty days from the billing date. In addition, all costs associated with the collection of delinquent accounts, including costs assessed by a collection agency for services rendered, shall be added to the account.

(c) Payments mailed as evidenced by the United States Post Office mark on or previous to the end of the period during which bills are payable will be deemed to be a payment within such period.

(d) All persons connected to the sewer system must give the City their correct address. Failure to receive sewer bills will not be considered an excuse for nonpayment nor permit an extension of the period during which sewer bills are payable. (Ord. 15-1996. Passed 12-17-96.)

933.08 ADJUSTMENTS AND CREDITS.

(a) Upon proof provided by a property owner or the Water Company, the City shall provide a retroactive credit for periods where no water service and therefore no sewer service was provided to the property. At no time shall the credit reduce the billing to less than the minimum charge established for that period.
(Ord. 16-1990 §3. Passed 10-2-90.)

(b) If a property owner wishes to obtain a credit for water usage because some portion of the water used was not discharged into the sanitary sewer system, relief may be sought through the City. The applicant for relief will be required to furnish evidence satisfactory to the City that the water used did not enter the sanitary sewer system such as for leaks and swimming pools. The minimum credit that shall be processed is five dollars ($5.00) per month.
(Ord. 15-1996. Passed 12-17-96.)

933.09 DELINQUENT SEWER RENTALS AND LIENS.

(A) All sewer rentals, together with all penalties and fees thereon, that are past due for a period of 30 days deemed delinquent for the purposes of this article. All delinquent sewer rentals and all penalties and fees thereon shall be a lien on the property served and shall be entered as a lien against such property in the Office of the Prothonotary of York County and shall be collected in the manner provided by law for the filing and collection of municipal claims. Any and all costs associated with recovering delinquent sewer rentals, whether those costs are incurred by the City, or by a Third Party, are recoverable by the City or a Third Party contracted with the City to recover delinquent sewer rentals. The City may also request water service termination in accordance with applicable State laws to provide for the collection of delinquent accounts. (Ord. 20-2019. Passed 9-3-19.)

(B) Permit Denials.

(a) Denial.

(1) The City may deny issuing to an applicant a municipal permit if the applicant owns real property for which there exists on the real property:

(i) A sewer or refuse collection delinquency, as defined in Article 939.09(A) and Article 951.14; or

(ii) A serious violation of State law or a code and the owner has taken no substantial steps to correct the violation within six months following notification of the violation and for which fines or other penalties or a judgment to abate or correct were imposed by a magisterial district judge or municipal court, or a judgment at law or in equity was imposed by a court of common pleas. However, no denial shall be permitted on the basis of a property for which the judgment, order or decree is subject to a stay or supersedeas by an order of a court of competent jurisdiction or automatically allowed by statute or rule of court until the stay or supersedeas is lifted by the court or a higher court or the stay or supersedeas expires as otherwise provided by law. Where a stay or supersedeas is in effect, the property owner shall so advise the City.

(2) The City shall not deny a municipal permit to an applicant if the municipal permit is necessary to correct a violation of State law or a code.

(3) The municipal permit denial shall not apply to an applicant's delinquency on sewer or refuse collection charges that are under appeal or otherwise contested through a court or administrative process.

(4) In issuing a denial of a permit based on an applicant's delinquency in municipal charges or for failure to abate a serious violation of State law or a code on real property that the applicant owns in this Commonwealth, the City shall indicate the street address, municipal corporation and county in which the property is located and the court and docket number for each parcel cited as a basis for the denial. The denial shall also state that the applicant may request a letter of compliance from the appropriate State agency, municipality or school district, in a form specified by such entity as provided in this section.

(b) Proof of compliance.

(1) All municipal permits denied in accordance with this subsection may be withheld until an applicant obtains a letter from the appropriate State agency or the City indicating the following:

(i) The property in question has no final and unappealable sewer or refuse delinquencies;

(ii) The property in question is now in State law and code compliance; or

(iii) The owner of the property has presented and the appropriate State agency or the City has accepted a plan to begin remediation of a serious violation of State law or a code. Acceptance of the plan may be contingent on:

(A) Beginning the remediation plan within no fewer than 30 days following acceptance of the plan or sooner, if mutually agreeable to both the property owner and the City.

(B) Completing the remediation plan within no fewer than 90 days following commencement of the plan or sooner, if mutually agreeable to both the property owner and the City.

(2) In the event that the appropriate State agency or the City fails to issue a letter indicating sewer, refuse, State law or code compliance or noncompliance, as the case may be, within 45 days of the request, the property in question shall be deemed to be in compliance for the purpose of this section. The appropriate State agency or the City shall specify the form in which the request for a compliance letter shall be made.

(3) Letters required under this section shall be verified by the appropriate municipal officials before issuing to the applicant a municipal permit.

(4) Municipal permits.

(i) Municipal permits may be denied by a board in accordance with the requirements of

this section to the extent that approval of the municipal permit is within the jurisdiction of the board. For purposes of this section,

"board" shall mean a zoning hearing board or other body granted jurisdiction to render decisions in accordance with the act of July 31, 1968 (P.L. 805, No. 247),1 known as the Pennsylvania Municipalities Planning Code, or a similar board in municipalities not subject to that act.

(ii) In any proceeding before a board other than the governing body of the City, the City may appear to present evidence that the applicant is subject to a denial by the board in accordance with this section.

(iii) For purposes of this subsection, a municipal permit may only be denied to an applicant other than an owner if:

(A) The applicant is acting under the direction or with the permission of an owner; and

(B) The owner owns real property satisfying the conditions of subsection (a).

(c) Applicability of other law. A denial of a permit shall be subject to the provisions of 2 Pa.C.S. Chs. 5 Subch. B2 (relating to practice and procedure of local agencies) and 7 Subch. B3 (relating to judicial review of local agency action) or the Pennsylvania Municipalities Planning Code, for denials subject to the act.
(Ord. 4-2017. Passed 2-21-17.)

933.10 RULES AND REGULATIONS.

Council reserves the right to adopt, revise and amend, such rules and regulations as it deems necessary and proper for the use and operation of the sewer system, which rules and regulations shall be and become a part of this article.
(Ord. 7-1954 §10.)

933.11 AMENDMENTS.

This article and the rules and regulations hereunder shall become effective immediately as to all sewer services rendered after December 1, 1953. The City reserves the right to make such changes as in its opinion may be desirable or beneficial, and to amend this article or to change the rates or charges in such manner and at such times as in its opinion may be advisable.
(Ord. 7-1954. §11.)

933.12 SEWER RENTAL FUND CREATED.

There is hereby created and established, a fund distinct and separate from all other funds of the City, to be known as the "Sewer Rental Fund". There shall be placed in this fund such moneys and revenues as are enumerated in the lease agreement between the City and the York City Sewer Authority, dated as of March 1, 1977. There shall be paid from this Fund all such expenditures as are provided for in the lease agreement.
(Ord. 8-1954 §1.)

933.13 ADMINISTRATIVE SUPPORT.

The City shall receive as a loan from the York City Sewer Authority, such office machinery and equipment as the Authority may furnish and shall use the same in the Sewer Rental Bureau in the carrying out of the Bureau's functions. The City shall have the Authority such evidence of the loan of such office machinery and equipment as the Authority may require.
(Ord. 8-1954 §4.)

933.14 RECORDS.

The City shall keep accurate records of the revenues which it receives from the sewer system, and of the expenses of the operation and maintenance thereof. (Ord. 8-1954 §5.)

933.15 CITY CREDIT NOT PLEDGED.

Neither the credit nor the taxing power of the City is pledged for any payments required to be made by the City under the terms of its lease with the York City Sewer Authority hereinbefore mentioned, but nothing in such lease shall prevent the City from making any additional payments thereunder from any funds which may properly and legally be made available for that purpose. (Ord. 8-1954 §6.)

933.16 REBATES FOR LOW INCOME ELDERLY CITIZENS AND LOW INCOME PERMANENTLY DISABLED CITIZENS.

(a) All bona fide residents of the City who are sixty-five years of age or over or permanently disabled shall be entitled to rebates from the certain sewer rental charge paid for their homesteads, in accordance with the schedule hereinafter set forth. Only one rebate shall be paid for each homestead; and in the case of co-ownership, a single rebate shall be paid to the co-owners jointly so long as any one of them is sixty-five years of age or over or permanently disabled, provided that all co-owners are otherwise eligible for the rebate.

(b) Definitions for the purpose of determining rebates:

(1) "Income" means all income from whatever source derived, including but not limited to salaries, wages, bonuses, commissions, income from self-employment, alimony, support money, cash, public assistance and relief, the gross amount of any pensions or annuities including railroad retirement benefits, all benefits received under the Federal Social Security Act, except Medicare benefits but including supplemental Social Security payments, all benefits received under State unemployment insurance laws and Veteran's Disability payments, all interest received from the Federal or any State government, or any instrumentality or political subdivision thereof, realized capital gains, rentals, Workmen's Compensation and the gross amount of loss of time insurance benefits, life insurance benefits and proceeds, except the first five thousand dollars ($5,000) of the total death benefit payments, and gifts of cash or property other than transfers by gift between members of a household in excess of a total value of three hundred dollars ($300.00), but shall not include surplus food or other relief in kind supplied by a governmental agency or those rebates offered by State and local government for services supplied.

(2) "Household income" means the aggregate of all income received by the homestead owner, or owners, in case of co-ownership, and his or her spouse if a resident of the same household during a calendar year in which sewer rental charges are due and payable.

(3) "Homestead" means a dwelling and so much of the land surrounding it as is reasonably necessary for use of the dwelling as a home, which is owned and occupied by a claimant. An owner includes a person in possession under a contract of sale, deed of trust, life estate, joint tenancy or tenancy in common.

(4) "Sewer rental charge" means the charge, per quarter, as defined in Section 933.03.

(5) "Permanently disabled" means unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to continue indefinitely. The City may require that a claimant be examined by a physician designated by the City to determine permanent disability.

(Ord. 29-1981 §1. Passed 12-15-81; Ord. 6-1982 §1. Passed 5-17-82.)

(c) The amount of rebates for the sewer rental charge paid during calendar year 1989 and thereafter shall be determined in accordance with the following schedule:

Household Income		Percentage of Sewer Rental Charge to be Rebated
$0	5,999	100
6,000	6,499	90
6,500	6,999	80
7,000	7,499	70
7,500	7,999	60
8,000	8,999	50
9,000	9,999	40
10,000	10,999	35
11,000	12,999	25
13,000	14,999	20
15,000	16,999	15
17,000	20,000	10
20,000	or over	No Rebate

(Ord. 13-2013. Passed 9-3-13.)

(d) A claim for rebate shall be filed with the Sewer Rental Bureau of the City between May 1 and June 30 of each year commencing with the calendar year 1983. The rebate shall apply to the charges for the fiscal year, January 1 through December 31 immediately preceding the claim filing period. Such claims shall be submitted on forms provided by the City. The Sewer Rental Bureau may require such additional evidence as it deems necessary or appropriate in processing the claim and reserves the right to deny any claim that does not meet the requirements for rebate, The rebate shall be limited to the service charges paid for the applicable calendar year, and may be apportioned for the part of the year during which the claimant was sixty-five years of age or older or permanently disabled. The Sewer Rental Bureau shall review each claim and shall verify and confirm the amount of rebate to the extent that the claim is valid and proper.

(e) Any information gained by the Business Administrator or any other official, agent or employee of the City, as a result of any claims, investigations or hearings required or authorized by this article, shall be confidential and shall not be disclosed to any person except for official use in connection with the administration or enforcement of this article or as otherwise provided by law.

(Ord. 29-1981 §1. Passed 12-15-81; Ord. 6-1982 §1. Passed 5-17-82.)

(f) Any person who willfully makes any false or untrue statement on any claim for rebate under this article shall upon conviction before any District Justice of York County, be fined not more than one thousand dollars ($1,000) for each offense and, in default of payment of fine or costs, shall be imprisoned for not more than ninety days (90 days) for each offense.

(Ord. 1-2009. Passed 1-6-09.)

Council of the City of York, PA
Session 2020
Bill No.
Ordinance No.

INTRODUCED BY: **Sandie Walker** DATE: **November 17, 2020**

AN ORDINANCE

Amending Article 933 "Sewer Rentals" of the York City Codified Ordinances to increase fees.

WHEREAS, Article 933 of the York City Codified Ordinances provides monthly sewer fees for all persons owning property connected to the sewer system and served with metered water service by the Water Company; and,

WHEREAS, it has been determined an increase is necessary to cover the cost of service;

NOW, THEREFORE, BE IT ORDAINED, by the Council of the City of York, Pennsylvania, that Article 933 "Sewer Rentals" of the York City Codified Ordinances is hereby amended as follows:

Section One: That Article 933.03 (a) "Annual Sanitary Sewer Rates" of the York City Codified Ordinances is amended as follows:

933.03 ANNUAL SANITARY SEWER RATES.

Rates for Domestic and Commercial Metered Water Users. All persons owning property used for domestic or commercial purposes which property is connected to the sewer system and served with metered water service by the Water Company shall pay a monthly rental for sanitary sewage service based on quantity of water used as evidenced by meter readings of water meters installed and maintained by the Water Company for the purpose of measuring water purchased from such Water Company and such other meters as may be installed pursuant to the provisions of this article, and subject to the minimum charges hereinafter provided as follows:

(a) Monthly quantity charge.

For each 1000 gallons per month: ~~$9.10~~ **$12.85**

(b) Minimum charge. All domestic and commercial users shall pay a minimum charge of $18.00 per month which shall entitle such users to ~~1865~~ **1400** gallons per month sewer service.

(Ord. 2-2017. Passed 1-17-17.)

Section 2: That Article 933.04 (a) "Industrial Waste Discharge" of the York City Codified Ordinances is amended as follows:

933.04 INDUSTRIAL WASTE CHARGE.

(a) Sewer Rent or Charge for Industrial Wastes. The sewer rent or charge for the collection and treatment of industrial wastes discharged into the sewer system by industrial users, shall be a quarterly charge based upon the water consumption, adjusted for that portion determined to be sanitary sewage, of the property served and shall be computed at the following standard metered rates:

For each 1000 gallons per month ~~$9.10~~ **$12.85**

(Ord. 2-2017. Passed 1-17-17.)

Section 3: This ordinance shall become effective in accordance with the law.

PASSED FINALLY: BY THE FOLLOWING VOTE:

YEAS: _____, _____, _____, _____, _____

NAYS: _____.

_____
Henry Hay Nixon, President of Council

ATTEST:

_____
Dianna L. Thompson-Mitchell, City Clerk

Presented to the Mayor for approval this _____ day of _____.

Approved: _____ _____
Mayor Date

Vetoed: _____ _____
Mayor Date

Appendix A-5-1 (AUS)

Engineering Assessment of the City of York Wastewater System Assets

May 2021

BUCHART HORN
ENGINEERS · ARCHITECTS · PLANNERS

SECTION 1: INTRODUCTION

EXECUTIVE SUMMARY

Buchart Horn was contracted by Pennsylvania American Water Company (PAWC) and the City of York, Pennsylvania to prepare engineers assessment of tangible assets for the purchase of the City of York's wastewater treatment plant (WWTP), collection and conveyance systems by PAWC.

The assessment is of tangible assets including facilities, equipment, infrastructure and real estate to be purchased includes a complete listing of assets and the original costs associated with design and construction of the assets. The original costs include purchase of real estate, rights of ways and the costs for engineering, legal and construction of the assets.

Table 1

York City Sewer Authority
Acquisition of the Assets of the York City Sewer Authority
Sanitary Sewer Facilities Summary Inventory and Original Costs

Account Number	Facility Description	Actual Cost
363	Sewer House Connections	$2,039,891.97
361	Manholes	$5,351,533.57
361	Pipes	$26,712,768.02
Various Accounts	Pumping	$199,379.54
354.4	WWTP Inventory Structures & Improvements	$121,437,327.47
Various Accounts	YCSA Real Property & Easements	$134,874.54
Totals		**$155,875,775.11**

METHODOLOGY

In order to update a complete inventory of sanitary sewer system facilities existing inventories were updated, financial records from City of York WWTP, York City Sewer Authority and Buchart Horn files were researched and used to update original facilities costs. The facilities costs included construction costs, engineering, permitting and legal costs.

It should be noted that available information from York City WWTP, York City Sewer Authority and Buchart Horn project files was limited due to record retention policies. Project information prior to 2008 was limited. Several older collection and conveyance project records were found during an archive search and incorporated into the Engineering Assessment.

Fortunately, The City of York, York City Sewer Authority and Buchart Horn have regularly updated the WWTP facilities inventory and maintained a listing of original costs for use in establishing current values and replacement costs for financial and insurance requirements.

The WWTP inventory in Section 2 is based on the existing facilities inventory. BH and City York WWTP Staff reviewed and updated the inventory for this facilitates assessment. Inventory items were updated to include 2020 capital projects for improvements the primary clarifiers, and replacement of the effluent filters.

The collection and conveyance system inventory in Section 3 is based on collection facilities geographic information system (GIS) which was converted from the paper mapping in 1998. Any available project records for York City Sewer Authority and City of York sewer replacement projects were incorporated into the Section 3 inventory. The original costs for these projects have been added to the facilities listed in Section 3.

The remaining facilities required our team to estimate current replacement costs and converted these costs to construction costs for the time period in which the facilities were originally constructed. Engineering News Record's (ENR) National Construction Cost Index was used to convert the replacement construction costs to original construction costs. Soft costs including engineering, legal and permitting costs for the assets installed prior to 2008, were estimated to be 20% of the construction costs. This was consistent with engineering and legal fees for projects after 2008.

The City of York legal staff researched the sanitary sewer system real property and easement deeds to develop an inventory and original costs for real estate at the WWTP and the York Industrial Park Pump Station, and collection and conveyance system rights-of-ways. Section 4 contains the complete summary of real property and easements.

Section 2: WWTP Inventory

The City of York WWTP facilities were first constructed in 1937. The current WWTP with Biological Nutrient Removal (BNR) upgrades is designed to treat an average daily flow of 18 mgd, consists of a headwork facilities for trash and grit removal, primary clarification, two treatment trains, final clarification, solids digestion, filtration and UV disinfections. A third unused A/O treatment train is also a part of the WWTP's facilities. Please refer to Section 2 for a detailed listing of the WWTP assets. The listing in Section contains both assets that are part of the current WWTP's treatment process and existing assets that are not currently being used. The WWTP assets are in good to fair condition.

The following are the summarized inventory and original costs for the WWTP facilities. The detailed breakdowns for each of the WWTP facilities are included in Appendix A. The structure numbers in Table 2 correspond to Exhibit 1 at the end of this section.

Table 2

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

WWTP Inventory and Original Costs

York No.	Structure No.	Process/Structure	Original Cost
1	1 & 2	Headworks	$3,548,210.96
2	3	T3 Raw Sewage Wet Wall	$389,119.20
3	4-11	Primary Clarifiers, Channels, Tunnel	$4,639,887.60
4	12	Primary Sludge Pump Station	$3,504,742.62
5	13	Train 1 & 2 FeSO4 Tank	$247,412.40
6	14	Stormwater Pumping Station	$454,411.20
7	15	Primary Effluent Pump Station	$468,217.20
8	16	Old PS-1; New T-1 Feed Pump Station	$475,890.85
9	17	Train 1 Final Clarifier	$1,658,564.40
10	18	Oxygen Generation Building	$482,311.47
11	19 & 20	Train 1 Final Clarifier	$1,071,915.60
12	21	Train 1 RSPS (Primary Switch Gear)	$1,279,945.25
13	22	Chief Operator Mini-Lab	$140,043.60
14	23	Train 2 A2O Tank	$5,936,152.80
15	24, 25, 26	T2 Final Clarifiers #1, 2 & 3	$1,925,789.06
16	27	Train 2 RSPS	$1,521,405.36
17	28	Train 3 Parshall Flume	$269,378.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

WWTP Inventory and Original Costs

York No.	Structure No.	Process/Structure	Original Cost
18	29	Train 3 A2O Splitter Box	$60,072.00
19	30	Train 3 A2O Tank	$10,481,580.00
20	31	Train 3 Final Clarifier Flow Splitter Box	$246,306.00
21	32, 33, 34	Train 3 Final Clarifier #1, 2 & 3	$2,672,708.40
22	35	Train 3 RSPS	$2,888,972.14
23	36	Train 3 FeSO4	$195,300.00
24	37	Filter Building	$9,734,333.86
25	38	Ultraviolet Light Contact Tank	$2,334,435.60
26	39	Maintenance Building	$1,664,244.34
27	40	Solids Handling Building	$16,200,003.80
28	42	Control Building	$8,289,706.22
29	43 & 44	Gravity Thickeners	$960,797.19
30	45 & 46	Microturbine Building	$6,155,228.64
31	47	Pressure Water Pumping Station	$56,112.00
32	48	Chlorine Building (Blower Building)	$838,825.81
33	49, 50, 51, 52	Digester Bldg. Dig #1, Dig #2 & Dig #3	$5,617,336.57
34	54 & 55	Ash Lagoons	$195,552.00
35	56	Filtrate Pump Station	$133,729.20
36	57 & 58	Filtrate Holding Tanks	$445,503.60
37	59	Substation #1	$114,615.14
40	62	Substation #3	$1,476,406.80
41	63	Substation #4	$297,901.20
42	64, 65, 66, 67	Primary Clarifier & Train 2 Scum Boxes	$220,219.69
43	68, 69, 70	T3 Remote Scum Box #1, #2 & #3	$140,763.60
44	71	Train 3 Control Scum Box	$46,282.80
45	72	Train 3 Decant Grinder Pump Station	$24,877.20
46	74	Cascade	$125,409.60
47	75	Train 2 Effluent Pumping Station	$1,139,920.80
48	76, 77	Train 2 Effluent Bypass Chambers	$87,258.00
49	79	Ground Water Well #2	$15,045.60
50	80	Flotation Thickener Bypass Chamber	$14,041.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

WWTP Inventory and Original Costs

York No.	Structure No.	Process/Structure	Original Cost
51	81	T-2 CLF Effluent Diversion Chamber	$14,041.20
52	82	T-1 FCLF Splitter Box (Old Tank 9)	$65,199.60
53	83	Train 3 Raw Sewage Flow Meter	$6,895.20
54	84	Waste Gas Burner Building	$98,061.60
55	86	Administration Building	$2,151,024.86
56	87	Effluent Flow Meter Vault	$24,939.60
58	---	Site	$17,189,628.40
59	---	Vehicle Storage Building	$515,563.08
60	---	Valve Chamber T-16	$49,026.00
61	---	On-Site Vehicles	$436,060.94
	Totals		**$121,437,327.47**

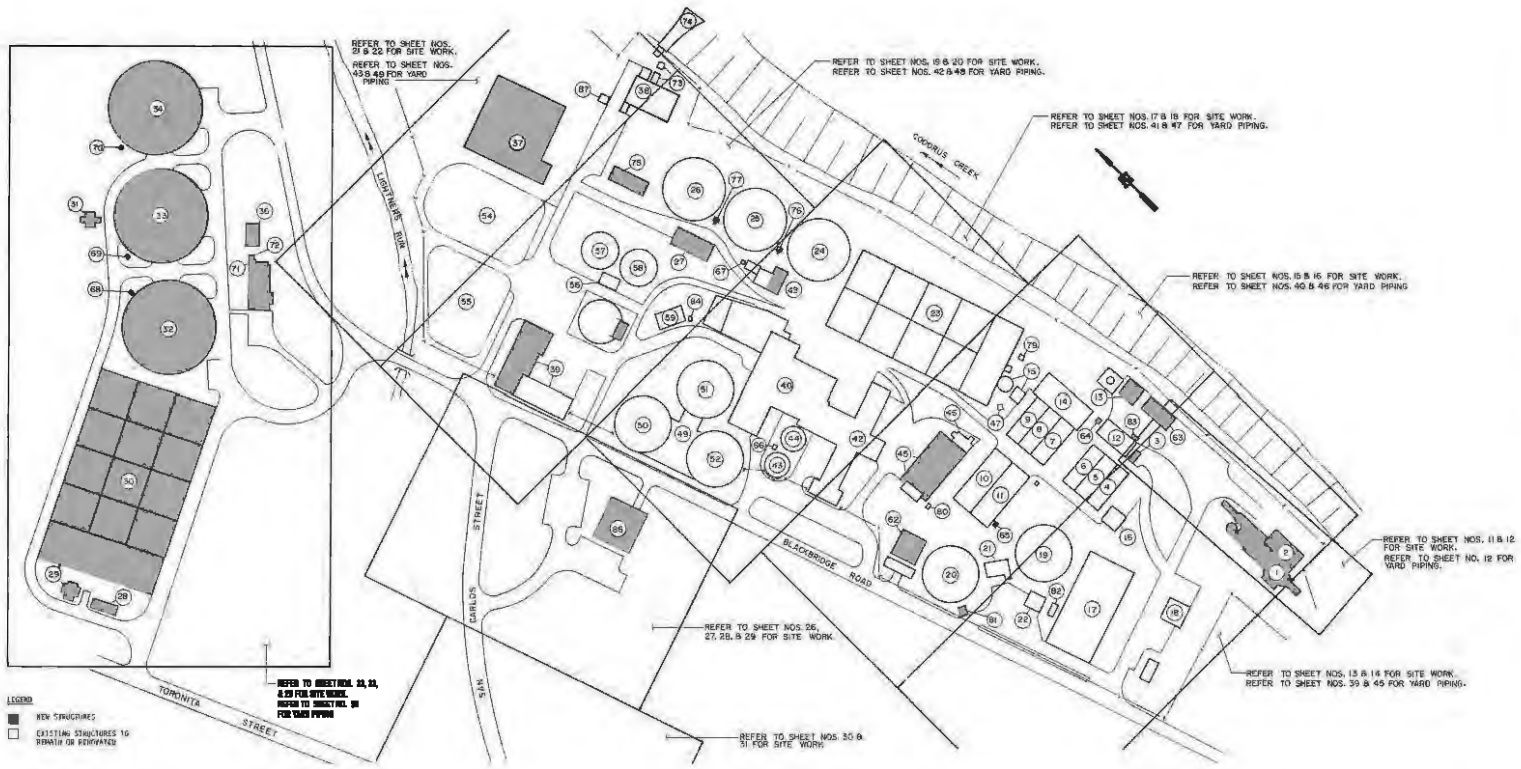


EXHIBIT 1

BUCHART HORN
ENGINEERS · ARCHITECTS · PLANNERS

Section 3: Collection System Inventory

Collection and Conveyance facilities are comprised of 92 miles of collection sewers and 12 miles of conveyance sewer ranging in size from 18 inches to 72 inches in diameter. The collection system also includes 15,650 service connections and the York Industrial Park pump station. Flows from the northern portion of York Industrial Park are conveyed to the gravity system through a 7.5 HP package pump station and 1700 LF forcemain. Please refer to Section 3 for a detailed listing of Collection and Conveyance System assets. The collection system facilities are fair condition.

The following is a summarized inventory and original costs for the collection and conveyance facilities. The detailed breakdowns for each of the collection and conveyance system components is in Appendix B. Exhibit 2 at the end of Section 3 shows the extents of the City of York Sanitary Sewer Collection and Conveyance System.

Table 3

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Collection and Conveyance System Inventory and Original Costs

Account Number	Facility Description	Count (ea or ft)	Actual Cost
363	Sewer House Connections	15,649	$2,039,891.97
361	Manholes	2,618	$5,351,533.57
361	Pipes	546,518	$26,712,768.02
Various Accounts	Pumping	1,709	$199,379.54
Totals			**$34,303,573.09**


York Industrial Park
Pump Station
City of York WWTP
MANCHESTER TWP
MANCHESTER TWP
SPRINGETTSBURY TWP
NORTH YORK BORO
SPRING GARDEN TWP
WEST MANCHESTER TWP
NORTH YORK BORO
YORK CITY
WEST YORK BORO
MN01
MN02
MN03
NY01
YC01
WM01
LTM01
LTM02
LTM03
LTM04
LTM05
SG01
SG02
SG02A
SG03
SG04
WY01
Legend
Flow Meters
Sanitary Manholes
Sanitary Sewers
Railroad
WWTP
Rivers and Lakes
Edge of Pavement
EXHIBIT 2
BUCHART HORN

Section 4: Property Inventory

Property and Rights of Way assets were compiled by the City of York staff. These assets include approximately 31 acres of property at the WWTP, 0.09 acres of property at the York Industrial Park pump station.

The following is a summarized inventory and original costs for the City of York real property and easements related to the WWTP and the collection and conveyance system. The total original value of the real property and easements is $134,874.54

The detailed listing of easements and real estate deeds for all wastewater related facilities was provided by the City of York and can be found in Appendix C.

Table 4

TABLE 4
York City Sewer Authority
Acquisition of the Assets of the York City Sewer Authority
Real Property and Easements Inventory and Original Costs

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
City of York	York Water Co	6/30/1939	27-U / 566	Deed	$2,500.00
York City Sewer Auth	Merchants Terminal Corp.	10/9/1984	88-F / 1002	Condemnation – Manch Twp	See Deed at 90-E / 489 below
York City Sewer Auth	Merchants Terminal Corp.	8/23/1985	90-E / 489	Deed – Manch Twp	$1.00*
York City Sewer Auth	Theodore R. Jones	4/3/1986	91-V / 414	Deed – Manch Twp	$38,000
York City Sewer Auth	Theodore R. Jones	8/2/1994	948 / 608 Ref. 91-V / 414	Termination of Life Estate – Manch Twp	$0.00
TOTAL:					**$40,501.00**

* No record of just compensation paid for condemnation.

Acquisitions of Sewer Easements:

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
City of York	Guardian Trust Co.	12/28/1911	18-A / 357	York	$27,000.00
City of York	P A & S Small Land Co.	11/5/1914	19-G / 642	ROW	$1.00
City of York	Jane Gresly	6/28/1915	19-U / 368	ROW	$1,000.00

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
City of York	Joseph R. Jones	5/22/1917	20-L / 263	ROW	$1.00
City of York	Bilmeyer & Small Co.	8/8/1918	20-S / 377	ROW	$1.00
City of York	West End Sewer Co.	10/21/1919	21-E / 35	Purchase Private Sewer System	$6,000.00
City of York	Jacob Bare Est.	7/23/1926	23-N / 558	ROW	$1,000.00
City of York	William M. Boger	9/23/1926	23-Q / 236	ROW	$1.00
City of York	Ralph K. Trimmer	9/29/1926	23-O / 650	ROW	$1.00
City of York	Grier Hersh	7/10/1931	24-Z / 628	ROW	$1.00
City of York	York County Poor District	1/27/1932	25-F / 36	ROW	$1.00
City of York	Annie M. Menough	5/6/1932	25-E / 665	ROW	$1.00
City of York	Frederick C. Boesch Exr	5/6/1932	25-E / 666	ROW	$100.00
City of York	Community Swimming Assn Inc	5/10/1932	25-E / 667	ROW	$1.00
City of York	Norard Hosiery Mills Inc.	8/9/1933	25-R / 4	ROW	$1.00
City of York	Agnes Kehm	12/21/1933	25-R / 279	ROW	$1.00
City of York	Sallie S. Bond	12/21/1993	25-4 / 280	ROW	$1.00
City of York	York Hospital	5/11/1936	26-K / 238	ROW	$22,261.54
City of York	David M. Myers Exr	8/30/1937	26-Z / 267	ROW	$1.00
City of York	York County Institution Dist	6/10/1938	27-I / 515	ROW	$1.00
City of York	J. Victor Jones	6/10/1938	27-I / 516	ROW	$1.00
City of York	York Tack & Nail Works	6/10/1938	27-I / 518	ROW	$1.00
City of York	New York Wire Cloth Co	6/10/1938	27-I / 520	ROW	$1.00
City of York	Home Furniture Co	6/10/1938	27-I / 522	ROW	$1.00
City of York	David P. Klinedinst Trust	6/10/1938	27-I / 524	ROW	$1.00
City of York	American Chain & Cable Co. Inc.	6/10/1938	27-I / 525	ROW	$1.00
City of York	George H. Wolf	6/10/1938	27-I / 527	ROW	$1.00
City of York	Maryland & Penna. Railroad Co.	6/10/1938	27-I / 529	ROW	$1.00
City of York	York County Institution Dist	6/24/1938	27-I / 636	ROW	$1.00
City of York	Ella L. Kleffman	7/21/1938	27-K / 209	ROW	$1.00
City of York	George D. Deardorff	7/21/1938	27-K / 210	ROW	$1.00
City of York	Sarah E. Miller	7/21/1938	27-K / 211	ROW	$1.00
City of York	Howard E. Holland	3/31/1939	27-R / 352	ROW	$1.00
City of York	Ray S. Noonan	9/12/1941	28-W / 267	ROW	$1.00
City of York	Fannie M. Free	7/7/1945	31-I / 182	ROW	$1.00
City of York	C. Kauffman Miller	4/22/1947	33-B / 14	ROW	$1.00
City of York	David Y. Herbst	11/4/1950	35-T / 632	ROW	$1.00
City of York	Penn Dairies Inc.	12/11/1950	35-Y / 108	ROW	$1.00

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
York City Sewer Auth	City of York	4/15/1952	36-U / 546	Deed – Transfer of Sewer System	$1.00
York City Sewer Auth	Commonwealth of PA	2/6/1969	61-X / 562	ROW – Manch Twp	$1.00
York City Sewer Auth	GTE Sylvania Inc.	7/9/1971	64-I / 237	ROW – W Manch Twp	$1.00
York City Sewer Auth	Robert Eichelberger	7/9/1971	64-I / 240	ROW – W Manch Twp	$1.00
York City Sewer Auth	York Stone and Supply Co.	7/9/1971	64-I / 243	ROW – W Manch Twp	$1.00
York City Sewer Auth	York Drilling Co. Inc.	7/9/1971	64-I / 246	ROW – W Manch Twp	$1.00
York City Sewer Auth	Williams Tool & Machine	7/9/1971	64-I / 249	ROW – W Manch Twp	$1.00
York City Sewer Auth	Luther D. March	7/9/1971	64-I / 252	ROW – W Manch Twp	$1.00
York City Sewer Auth	Sun Oil Company	1/5/1972	64-W / 1194	ROW – York	$1.00
York City Sewer Auth	City of York	4/30/1987	95-L / 665	ROW – York	$1.00
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 672	ROW – York	$1,700.00
York City Sewer Auth	Champion Intl. Corp.	4/30/1987	95-L / 679	ROW – York	$2,300.00
York City Sewer Auth	Larry Liebgott	4/30/1987	95-L / 687	ROW – York	$2,000.00
York City Sewer Auth	York City School District	4/30/1987	95-L / 694	ROW – York	$5,100.00
York City Sewer Auth	York College of PA	4/30/1987	95-L / 702	ROW – Spring Garden Twp	$5,670.00
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 707	ROW – York	$500.00
York City Sewer Auth	Robert D. Hechinger	4/30/1987	95-L / 715	ROW – York	$3,000.00
York City Sewer Auth	City of York	4/30/1987	95-L / 723	ROW – York	$1.00
York City Sewer Auth	City of York	4/30/1987	95-L / 731	ROW – York	$1.00
York City Sewer Auth	City of York	4/30/1987	95-L / 739	ROW – York	$1.00
York City Sewer Auth	L. Levetan & Sons	4/30/1987	95-L / 747	ROW – York	$1,600.00
York City Sewer Auth	City of York	4/30/1987	95-L / 756	ROW – York	$1.00
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 765	ROW – York	$1,200.00
York City Sewer Auth	City of York	4/30/1987	95-L / 773	ROW – York	$1.00

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
York City Sewer Auth	City of York	4/30/1987	95-L / 782	ROW – York	$1.00
York City Sewer Auth	Maryland and PA Railroad	5/8/1987	95-N / 1010	ROW – York	$750.00
York City Sewer Auth	Dennis L. Edleblute	7/6/1988	99-R / 979	ROW – York	$730.00
York City Sewer Auth	York City Redev. Auth.	7/27/1988	99-Z / 257	ROW – York	$1.00
York City Sewer Auth	Evelyn Jane Silberman	11/21/1988	101-F / 376	ROW – York	$1.00
York City Sewer Auth	Maryland and PA Railroad	12/19/1988	101-L / 868	Addendum to ROW – York	$0.00
York City Sewer Auth	Columbia Gas of PA Inc.	1/25/1989	101-T / 1085	ROW – York	$1.00
York City Sewer Auth	City of York	9/8/1993	714 / 354	ROW – York	$1.00
York City Sewer Auth	Dentsply Intl. Inc.	11/30/1993	776 / 482	ROW – York	$1.00
York City Sewer Auth	York Building Prod. Co.	8/17/2000	1407 / 8871	ROW – W Manch Twp	$1.00
York City Sewer Auth	Maryland and PA Railroad	2/7/2001	1424 / 4281	ROW – York	$900.00
York City Sewer Auth	Maryland and PA Railroad	2/7/2001	1424 / 4286	Addendum to ROW – York	$0.00
York City Sewer Auth	York City School Dist.	3/12/2001	1427 / 6924	ROW – W Manch Twp	$1.00
York City Sewer Auth	John E. Gearhart	3/12/2001	1427 / 6935	ROW – York	$1.00
York City Sewer Auth	B.B., Jr., Inc.	12/11/2002	1533 / 7073	ROW – Manch Twp	$1.00
York City Sewer Auth	Creekside Investors, LP	1/10/2003	1539 / 7893	ROW – York	$1.00
York City Sewer Auth	John E. Gearhart	1/18/2008	1943 / 7314	Condemnation – York	See ROW at 2102 / 2115 below
York City Sewer Auth	Cresticon Inc.	1/18/2008	1943 / 7327	Condemnation – York	$1.00*
York City Sewer Auth	Svedala Industries Inc.	3/20/2008	1954 / 5867	ROW – Spring Garden Twp	$1.00
York City Sewer Auth	York College of PA	6/16/2008	1970 / 5362	ROW – Spring Garden Twp	$1.00
York City Sewer Auth	Metso Minerals Indust. Inc.	12/17/2009	2056 / 3789 Ref. 1954 / 5867	Amendment to ROW – Spring Garden Twp	$0.00
York City Sewer Auth	Metso Minerals Indust. Inc.	1/17/2010	2079 / 7388 Ref. 1954 / 5867	Amendment to ROW – Spring Garden Twp	$0.00

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION	ORIGINAL PRICE
York City Sewer Auth	John E. Gearhart	11/18/2010	2102 / 2115 Ref. 1943 / 7314	ROW – York	$11,500.00
York City Sewer Auth	Molt LLC	7/23/2018	2479 / 7170	ROW – Manch Twp	$1.00
TOTAL:					**$94,373.54**

* No record of just compensation paid for condemnation and no record of an accompanying deed.

APPENDIX A: WWTP INVENTORY SHEETS

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York01 - WWTP Headworks

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$1,674,850.47
354.40	Piping	1988	Lot		$57,710.40
354.40	Electrical Wiring	1988	Lot		$70,772.89
380.11	Electrical Equipment	1988	Lot		$30,662.80
354.40	Summitt	2016	Ea.	2	$10,200.00
354.40	EIM Gate Operators	1999	Ea.	1	$9,600.00
380.11	Pista-grit No. 1	2002	Ea.	1	$6,733.20
380.11	Grit Dump Facility	2001	Lot		$64,200.00
380.11	Equipment	2004	Lot		$84,000.00
354.40	Piping	2004	Lot		$5,100.00
354.40	Electrical Wiring	2004	Lot		$12,406.80
354.40	Structure	2008	Lot		$103,866.00
354.40	Structure (HVAC, Odor Control)	2009	Lot		$58,212.00
354.40	Piping	2009	Lot		$46,044.00
380.11	Process Equipment	2009	Lot		$200,066.40
380.11	Process Equipment	2011	Lot		$787,560.00
354.40	Piping	2011	Lot		$20,400.00
354.40	Structure	2011	Lot		$70,944.00
354.40	Electrical Wiring	2011	Lot		$175,719.60
354.40	Electrical Equipment	2011	Lot		$17,865.60
354.40	Structure	2012	Lot		$4,800.00
380.11	Process Equipment	2012	Lot		$5,610.00
354.40	Structure (Overhead Doors)	2014	Ea.	6	$12,183.60
354.40	Overhead Door	2017	Lot		$18,703.20
	Total items 24				$3,548,210.96

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York02 - WWTP T3 Raw Sewage Wet Well

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$118,964.40
380.00	Process Equipment	1990	Lot		$209,080.80
354.40	Electrical Equipment	1990	Lot		$49,800.00
354.40	Channel Improvement	1995	Lot		$11,274.00
	Total items 4				$389,119.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York03 - WWTP Primary Clarifiers, Channels, Tunnel

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$95,716.80
354.40	Structure	1963	Lot		$237,682.80
354.40	Structure	1981	Lot		$4,800.00
354.40	Structure	1991	Lot		$2,949,234.00
354.40	Piping	2020	Lot		$104,400.00
354.40	Electrical Wiring	2020	Lot		$51,600.00
354.40	Electrical Equipment	2020	Lot		$80,749.20
380.90	Process Equipment	2020	Lot		$809,932.80
364.00	Flow Meters	2020	Ea.		$30,000.00
380.90	Hand-wheel Gate	2020	Ea.		$78,000.00
380.90	Stub Shafts & Chain	2020	Lot		$132,000.00
354.40	Wireway	2020	Lot		$36,000.00
380.90	Whipps Sluice Gate	2016	Lot		$14,250.00
380.90	Whipps Sluice Gate	2016	Lot		$7,710.00
354.40	Vertical Pump	2016	Lot		$7,812.00
	Total items 15				$4,639,887.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York04 - WWTP Primary Sludge Pump Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1916	Lot		$14,713.20
354.40	Structure	1990	Lot		$388,834.80
380.00	Process Equipment	1990	Lot		$111,243.63
354.40	Piping	1990	Lot		$31,296.60
354.40	Electrical Wiring	1990	Lot		$100,611.63
354.40	Electrical Equipment	1990	Lot		$124,117.56
354.40	UPS-PSPS	2002	Lot		$7,140.00
354.40	Wall Closure	1995	Lot		$6,195.60
354.40	Structure	1996	Lot		$12,548.40
380.00	Process Equipment	1996	Lot		$39,392.40
354.40	Piping	1996	Lot		$8,280.00
354.40	Electrical Wiring	1996	Lot		$8,340.00
354.40	Ind. Hot Water Sys.	1997	Lot		$8,400.00
354.40	AC System	1997	Lot		$117,600.00
354.40	Vaughin	2020	Ea.		$144,000.00
354.40	Structure	2009	Lot		$18,000.00
380.00	Process Equipment	2001	Lot		$208,843.20
354.40	Electrical Wiring	2001	Lot		$49,496.40
354.40	Electrical Equipment	2001	Lot		$323,253.60
354.40	Structure	2008	Lot		$3,000.00
380.00	Process Equipment	2008	Lot		$66,600.00
354.40	Piping	2008	Lot		$18,000.00
354.40	Electrical Wiring	2008	Lot		$4,500.00
354.40	Electrical Equipment	2008	Lot		$1,200.00
380.00	Process Equipment	2010	Lot		$104,610.00
354.40	Piping	2010	Lot		$31,800.00
354.40	Structure	2010	Lot		$7,200.00
354.40	Electrical Wiring	2010	Lot		$83,139.60
354.40	Electrical Equipment	2010	Lot		$115,658.40
380.00	Process Equipment	2012	Lot		$16,800.00
354.40	Electrical Wiring	2012	Lot		$507,852.00
354.40	Electrical Equipment	2012	Lot		$822,075.60
	Total items 32				$3,504,742.62

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York05 - WWTP Train 1 & 2 FeSO4 Tank

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$20,492.40
354.40	Structure	1981	Lot		$58,620.00
380.20	Process Equipment	1990	Lot		$114,600.00
354.40	Structure	2008	Lot		$18,000.00
380.20	Process Equipment	2008	Lot		$6,000.00
354.40	Piping	2008	Lot		$24,000.00
354.40	Electrical Wiring	2008	Lot		$4,500.00
354.40	Electrical Equipment	2008	Lot		$1,200.00
	Total items 8				$247,412.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York06 - WWTP Stormwater Pumping Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$32,904.00
354.40	Structure	1963	Lot		$62,179.20
354.40	Structure	1981	Lot		$1,599.60
354.40	Structure	1990	Lot		$37,969.20
380.00	Process Equipment	1990	Lot		$198,052.80
354.40	Piping	1990	Lot		$91,844.40
354.40	Piping	1963	Lot		$1,330.80
354.40	Electrical Wiring	1990	Lot		$10,065.60
354.40	Electrical Equipment	1990	Lot		$1,033.20
354.40	Baffles	2014	Lot		$17,432.40
	Total items 10				$454,411.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York07 - WWTP Primary Effluent Pump Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$9,715.20
354.40	Structure	1991	Lot		$71,173.20
380.00	Process Equipment	1991	Lot		$43,519.20
354.40	Piping	1991	Lot		$49,873.20
354.40	Electrical Equipment	1991	Lot		$1,080.00
380.00	Drainage Pump	1998	Ea.		$4,200.00
354.40	Structure	2001	Lot		$5,032.80
380.00	Process Equipment	2001	Lot		$82,792.80
380.00	Process Equipment	2010	Lot		$79,304.40
354.40	Piping	2010	Lot		$16,590.00
354.40	Structure	2010	Lot		$12,384.00
354.40	Electrical Wiring	2010	Lot		$6,502.80
354.40	Electrical Wiring	2012	Lot		$47,908.80
354.40	Roof Replacement	2013	Ea.		$9,856.80
380.00	Prim. Effl. Pump #2 Rehab.	2013	Ea.		$28,284.00
	Total items 15				$468,217.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York08 - WWTP Old PS-1; New T-1 Feed Pump Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$218,202.85
380.00	Process Equipment	1981	Lot		$74,400.00
354.40	Piping	1981	Lot		$107,023.20
354.40	Electrical Wiring	1981	Lot		$3,874.80
354.40	Electrical Equipment	1981	Lot		$2,426.40
354.40	Structure	2008	Lot		$69,963.60
	Total items 6				$475,890.85

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York09 - WWTP Train 1 Oxygen Reactor

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$8,152.80
354.40	Structure	1981	Lot		$1,308,141.60
380.14	Process Equipment	1991	Lot		$173,827.20
354.40	Piping	1991	Lot		$75,758.40
354.40	Electrical Wiring	1991	Lot		$1,922.40
354.40	Electrical Wiring	1981	Lot		$12,000.00
354.40	Electrical Equipment	1991	Lot		$71,562.00
354.40	Electrical Equipment	1981	Lot		$7,200.00
	Total items	8			$1,658,564.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York10 - WWTP Oxygen Generation Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$311,951.07
354.40	Electrical Wiring	1981	Lot		$38,610.00
354.40	Electrical Equipment	1991	Lot		$2,336.40
354.40	Electrical Equipment	1981	Lot		$42,428.40
354.40	Structure	2011	Lot		$71,991.60
354.40	Electrical Wiring	2011	Lot		$14,994.00
	Total items 6				$482,311.47

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York11 - Train 1 Final Clarifier

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$138,060.00
354.40	Structure	1981	Lot		$722,886.00
380.15	Process Equipment	1991	Lot		$27,408.00
380.15	Process Equipment	1981	Lot		$129,600.00
354.40	Piping	1981	Lot		$26,706.00
354.40	Electrical Wiring	1981	Lot		$20,533.20
354.40	Electrical Equipment	1981	Lot		$6,722.40
	Total items 7				$1,071,915.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York12 - Train 1 RSPS (Primary Switch Gear)

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$1,200.00
354.40	Structure	1981	Lot		$148,840.25
380.00	Process Equipment	1991	Lot		$4,800.00
354.40	Electrical Wiring	1981	Lot		$22,489.20
354.40	Electrical Equipment	1991	Lot		$3,872.40
354.40	Electrical Equipment	1981	Lot		$9,817.80
354.40	Structure	2008	Lot		$76,946.40
380.00	Process Equipment	2011	Lot		$24,360.00
354.40	Structure	2011	Lot		$88,314.00
354.40	Electrical Wiring	2011	Lot		$204,806.40
354.40	Electrical Equipment	2011	Lot		$694,498.80
	Total items 11				$1,279,945.25

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York13 - Chief Operator Mini-Lab

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$82,801.20
380.00	Process Equipment	1981	Lot		$33,170.40
354.40	Piping	1981	Lot		$14,482.80
354.40	Electrical Equipment	1981	Lot		$9,589.20
	Total items 4				$140,043.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York14 - Train 2 A2O Tank

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$313,375.20
354.40	Structure	1981	Lot		$1,599.60
354.40	Structure	1990	Lot		$1,477,891.20
354.40	Electrical Equipment	1990	Lot		$44,904.00
380.20	MLSS Analyzer	1999	Ea.		$3,264.00
380.20	Process Equipment	2012	Lot		$3,074,415.60
354.40	Piping	2012	Lot		$435,000.00
354.40	Structure	2012	Lot		$295,770.00
354.40	Electrical Wiring	2012	Lot		$289,933.20
	Total items	9			$5,936,152.80

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York15 - T2 Final Clarifiers 1, 2 & 3

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$160,860.26
354.40	Structure	1963	Lot		$187,863.60
354.40	Structure	1990	Lot		$93,054.00
380.15	Process Equipment	1963	Lot		$30,060.00
380.15	Process Equipment	1990	Lot		$323,696.40
354.40	Piping	1963	Lot		$40,144.80
354.40	Piping	1990	Lot		$100,624.80
354.40	Electrical Wiring	1990	Lot		$18,267.60
354.40	Electrical Equipment	1990	Lot		$864.00
380.15	Process Equipment	2010	Lot		$213,600.00
380.15	Process Equipment	2011	Lot		$227,782.80
354.40	Structure	2011	Lot		$144,800.40
354.40	Electrical Wiring	2011	Lot		$15,252.00
380.15	Process Piping	2012	Lot		$222,000.00
380.15	Process Equipment	2012	Lot		$72,000.00
354.40	Structure	2012	Lot		$72,399.60
354.40	Electrical Wiring	2012	Lot		$2,518.80
	Total items 17				$1,925,789.06

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York16 - Train 2 RSPS

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$664,536.00
380.00	Process Equipment	1990	Lot		$166,743.43
354.40	Piping	1990	Lot		$188,961.24
354.40	Electrical Wiring	1990	Lot		$41,761.50
354.40	Structure	2003	Lot		$17,215.20
380.00	Process Equipment	2003	Lot		$42,092.40
354.40	Piping	2003	Lot		$11,521.20
354.40	Electrical Wiring	2003	Lot		$5,977.20
380.00	Process Equipment	2010	Lot		$39,000.00
354.40	Piping	2010	Lot		$5,750.40
354.40	Electrical Wiring	2010	Lot		$5,067.60
354.40	Electrical Equipment	2010	Lot		$3,184.80
354.40	Electrical Equipment	2011	Lot		$35,146.80
354.40	Electrical Wiring	2011	Lot		$5,216.40
380.00	Process Equipment	2011	Lot		$230,702.40
380.00	Process Equipment	2012	Lot		$20,440.80
354.40	Roof Replacement	2013	Ea.		$32,019.60
380.00	Pump Replacement	2013	Ea.		$6,068.40
	Total items	18			$1,521,405.36

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York17 - Train 3 Parshall Flume

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$45,000.00
354.40	Piping	1988	Lot		$3,000.00
354.40	Electrical Wiring	1988	Lot		$3,052.80
354.40	Electrical Equipment	1988	Lot		$1,200.00
354.40	Structure	2001	Lot		$91,320.00
354.40	Piping	2001	Lot		$125,805.60
	Total items	6			$269,378.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York18 - Train 3 A2O Splitter Box

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$45,600.00
380.20	Process Equipment	1988	Lot		$12,000.00
354.40	Electrical Wiring	1988	Lot		$2,472.00
	Total items 3				$60,072.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York19 - Train 3 A2O Tank

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$4,573,944.00
380.20	ATI self-cleaning unit	2003	Lot		$3,438.00
354.40	Piping	1988	Lot		$24,000.00
354.40	Electrical Equipment	1988	Lot		$8,400.00
380.20	Process Equipment	2011	Lot		$4,281,618.00
354.40	Piping	2011	Lot		$658,800.00
354.40	Structure	2011	Lot		$354,000.00
354.40	Electrical Wiring	2011	Lot		$574,174.80
354.40	Structure	2012	Lot		$3,205.20
	Total items 9				$10,481,580.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021

Account 354.4 - Structures & Improvements - York20 - Train 3 Fin.Clarifier Flow Splitter Box

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$60,000.00
380.15	Process Equipment	1988	Lot		$12,000.00
354.40	Piping	1988	Lot		$12,000.00
354.40	Electrical Wiring	1988	Lot		$3,508.80
380.15	Process Equipment	2011	Lot		$109,557.60
354.40	Piping	2011	Lot		$3,000.00
354.40	Structure	2011	Lot		$32,245.20
354.40	Electrical Wiring	2011	Lot		$10,994.40
354.40	Electrical Equipment	2011	Lot		$3,000.00
	Total items	9			$246,306.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York21 - Train 3 Final Clarifier # 1, 2, 3

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$1,758,902.40
380.15	Process Equipment	1988	Lot		$441,600.00
354.40	Piping	1988	Lot		$9,600.00
354.40	Electrical Wiring	1988	Lot		$65,433.60
354.40	Electrical Equipment	1988	Lot		$3,600.00
380.15	Process Equipment	2010	Lot		$393,572.40
	Total items 6				$2,672,708.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York22 - Train 3 RSPS

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$626,465.88
380.00	Process Equipment	1988	Lot		$60,021.96
354.40	Piping	1988	Lot		$220,800.00
354.40	Electrical Wiring	1988	Lot		$46,589.50
354.40	Structure	2008	Lot		$120,794.40
380.00	Process Equipment	2008	Lot		$66,600.00
354.40	Piping	2008	Lot		$12,000.00
354.40	Electrical Wiring	2008	Lot		$4,500.00
354.40	Electrical Equipment	2008	Lot		$1,200.00
380.00	Process Equipment	2011	Lot		$223,502.40
354.40	Piping	2011	Lot		$209,583.60
354.40	Electrical Wiring	2011	Lot		$73,311.60
354.40	Electrical Equipment	2011	Lot		$1,223,602.80
	Total items 13				$2,888,972.14

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York23 - Train 3 FeSO4

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$75,600.00
380.20	Process Equipment	1988	Lot		$66,000.00
354.40	Structure	2008	Lot		$18,000.00
380.20	Process Equipment	2008	Lot		$6,000.00
354.40	Piping	2008	Lot		$24,000.00
354.40	Electrical Wiring	2008	Lot		$4,500.00
354.40	Electrical Equipment	2008	Lot		$1,200.00
	Total items 7				$195,300.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York24 - Filter Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1989	Lot		$1,917,082.66
354.40	Piping	2021	Lot		$66,078.00
354.40	Electrical Wiring	2021	Lot		$88,800.00
354.40	Electrical Equipment	2021	Lot		$240,000.00
380.40	1-EIM Gate Operator	2021	Lot		$3,360.00
380.40	Filter Equip. Replace.	2021	Lot		$6,515,594.40
354.40	Structure	2021	Lot		$51,580.80
380.40	Mechanical Equipment	2021	Lot		$192,000.00
354.40	Structure	2021	Lot		$500,912.40
380.40	Weir Gates and Operators	2015	Lot		$124,794.00
380.40	Mud Valves	2014	Lot		$23,976.00
380.40	Stop Log	2015	Lot		$10,155.60
	Total items 12				$9,734,333.86

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York25 - Ultraviolet Light Contact Tank

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1989	Lot		$533,930.40
354.40	Structure	1981	Lot		$373,072.80
380.30	Process Equipment	1989	Lot		$110,868.00
380.30	Process Equipment	1981	Lot		$38,046.00
354.40	Piping	1981	Lot		$16,006.80
354.40	3-EIM Gate Operators	1999	Lot		$10,080.00
354.40	Structure	2001	Lot		$208,362.00
380.30	Process Equipment	2001	Lot		$874,582.80
354.40	Electrical Wiring	2001	Lot		$39,627.60
354.40	Electrical Equipment	2001	Lot		$23,265.60
380.30	Process Equipment	2013	Lot		$106,593.60
	Total items 11				$2,334,435.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York26 - Maintenance Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1989	Lot		$1,259,844.34
354.40	Structure	1969	Lot		$107,553.60
380.00	Process Equipment	1969	Lot		$952.80
354.40	Piping	1969	Lot		$468.00
354.40	Electrical Wiring	1989	Lot		$29,599.20
354.40	Electrical Equipment	1989	Lot		$4,110.00
354.40	Electrical Equipment	1969	Lot		$1,812.00
380.00	Process Equipment	1998	Lot		$10,980.00
354.40	Structure	2008	Lot		$248,924.40
	Total items	9			$1,664,244.34

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York27 - Solids Handling Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$582,976.80
354.40	Structure	1981	Lot		$3,059,013.90
380.00	Process Equipment	1991	Lot		$945,770.40
380.00	Process Equipment	1981	Lot		$59,999.76
354.40	Piping	1991	Lot		$228,930.00
354.40	Piping	1981	Lot		$119,999.88
354.40	Electrical Wiring	1991	Lot		$107,947.20
354.40	Electrical Wiring	1981	Lot		$45,093.60
354.40	Electrical Equipment	1991	Lot		$28,610.40
354.40	Electrical Equipment	1981	Lot		$38,447.40
354.40	Structure	1989	Lot		$109,694.40
354.40	Piping	1989	Lot		$32,056.80
354.40	Electrical Equipment	1989	Lot		$3,740.40
380.00	Polymer Mixers	1998	Ea.		$33,120.00
380.00	Sludge Feed Pumps	2016	Ea.		$54,000.00
380.00	P-23 Utility Pump	1999	Ea.		$6,786.00
380.00	P-24 Utility Pump	2000	Ea.		$6,786.00
354.40	Structure	2003	Lot		$120,525.60
380.00	Process Equipment	2003	Lot		$1,151,328.00
354.40	Piping	2003	Lot		$255,372.00
354.40	Electrical Wiring	2003	Lot		$239,085.60
354.40	Electrical Equipment	2003	Lot		$10,843.20
380.00	Sludge Sampler	2004	Ea.		$10,920.00
364.00	N. Gas Flowmeter	2004	Ea.		$2,419.20
380.00	Process Equip	2004	Lot		$122,790.00
354.40	Electric Equip	2004	Lot		$33,517.20
354.40	Electric Wiring	2004	Lot		$27,142.80
354.40	Piping	2004	Lot		$36,442.80
354.40	Structure	2004	Lot		$14,160.00
380.00	Process Equip	2005	Lot		$473,166.24
354.40	Piping	2005	Lot		$5,369.40
354.40	Electric Equip	2005	Lot		$14,894.40
354.40	Electric Wiring	2005	Lot		$20,376.24
354.40	Structure	2005	Lot		$77,197.63
380.00	Process Equip	2005	Lot		$82,173.20
354.40	Electric Wiring	2005	Lot		$68,565.32
380.00	Process Equip	2006	Lot		$295,019.56
354.40	Structure	2006	Lot		$229,083.76
354.40	Piping	2006	Lot		$109,969.56
354.40	Electrical Equip	2006	Lot		$14,426.70
354.40	Electrical Wiring	2006	Lot		$13,701.30
354.40	Structure	2008	Lot		$121,892.40

380.00	Process Equipment	2010	Lot	$109,081.76
380.00	Process Equipment	2010	Lot	$1,963,851.60
354.40	Piping	2010	Lot	$832,029.60
354.40	Structure	2010	Lot	$1,178,020.80
354.40	Electrical Wiring	2010	Lot	$556,951.20
354.40	Electrical Equipment	2010	Lot	$1,321,269.60
354.40	HVAC Equipment	2010	Lot	$195,130.80
354.40	HVAC Piping/Duct	2010	Lot	$208,891.20
354.40	Electrical Equipment	2011	Lot	$27,224.40
354.40	Piping	2012	Lot	$205,107.60
354.40	Structure	2012	Lot	$13,200.00
354.40	Electrical Wiring	2012	Lot	$2,239.20
380.00	Process Equipment	2012	Lot	$16,275.60
380.00	(2) Blending units & (3) Centrifuge Pumps	2018	Lot	$22,200.00
380.00	Centrifuge Rehabilitation	2014	Lot	$56,482.80
354.40	Heat Trace Installation	2014	Lot	$15,355.20
380.00	Sensidyne Gas Detection System	2014	Lot	$15,337.20
354.40	Gas Detection/Alarm	2014	Lot	$9,330.00
380.00	Capacitor	2014	Lot	$7,112.40
354.40	Glass Lined Valves	2014	Lot	$44,608.80
380.00	Vanton Pump	2015	Lot	$15,985.20
380.00	Vaughn Pump HE	2015	Lot	$17,157.60
380.00	Vaughn Vertical WW Pump	2015	Lot	$13,650.00
380.00	VFD's	2015	Lot	$11,929.20
380.00	Backwash Strainer	2015	Lot	$20,400.00
380.00	Sulfuric Acid Tank	2015	Lot	$31,993.20
380.00	Fairbanks Morse Pumps	2015	Lot	$36,795.60
354.40	Gear Unit Repair	2016	Lot	$70,043.28
354.40	Heat Trace Panel	2016	Lot	$23,802.73
394.00	Wilo Sub Pump	2016	Lot	$6,912.73
394.00	(3) Wilo Pumps	2016	Lot	$23,166.22
394.00	(2) Wilo Pumps	2016	Lot	$23,968.43
354.40	GBT Sample Pump	2016	Lot	$12,120.00
354.40	Strainer	2016	Lot	$12,960.00
354.40	Sump Pump	2016	Lot	$29,460.00
354.40	Dodge Reducer	2016	Lot	$21,834.00
354.40	Polymer Feed Pump	2016	Lot	$14,770.80

Total items 79 $16,200,003.80

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York28 - Control Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$250,700.40
354.40	Structure	1963	Lot		$135,139.20
354.40	Structure	1981	Lot		$39,098.40
354.40	Structure	1991	Lot		$834,875.09
380.00	Process Equipment	1991	Lot		$445,834.80
380.00	Process Equipment	1981	Lot		$20,810.40
354.40	Piping	1991	Lot		$44,227.20
354.40	Electrical Wiring	1991	Lot		$428,067.60
354.40	Electrical Wiring	1981	Lot		$540.00
354.40	Structure	1989	Lot		$78,289.20
380.00	Process Equipment	1989	Lot		$270,398.40
354.40	Piping	1989	Lot		$91,464.00
354.40	Electrical Equipment	1989	Ea.		$37,417.20
354.40	Electrical Equipment	1991	Ea.		$3,290,661.94
354.40	UPS-Cogeneration	2002	Ea.		$11,850.00
354.40	Electrical Equipment	1981	Ea.		$338.40
354.40	VAX Upgrade	1995	Lot		$29,180.40
354.40	Electrical Equipment	1997	Lot		$10,500.00
380.00	Computer System	1999	Lot		$738,488.40
354.40	HVAC Upgrade	1999	Ea.		$131,070.00
354.40	SCADAlarm System	2002	Ea.		$49,371.60
354.40	Electrical Wiring	2003	Lot		$20,292.00
354.40	Electrical Equipment	2003	Lot		$124,696.80
354.40	Electrical Equipment	2007	Lot		$22,206.00
354.40	Structure	2008	Lot		$201,196.80
354.40	Stucture	2010	Lot		$344,836.80
354.40	Electrical Wiring	2010	Lot		$160,629.60
354.40	Electrical Equipment	2010	Lot		$106,533.60
380.00	Process Equipment	2010	Lot		$27,240.00
380.00	Process Piping	2010	Lot		$38,160.00
354.40	Piping	2011	Lot		$37,447.20
354.40	Electrical Wiring	2011	Lot		$180,765.60
354.40	Electrical Equipment	2011	Lot		$20,721.60
354.40	Struct. (Breakroom Renovation)	2014	Lot		$49,522.80
354.40	Struct. (Bathroom Renovation)	2014	Lot		$17,134.80
	Total items 35				$8,289,706.22

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York29 - Gravity Thickeners

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$120,858.00
354.40	Structure	1981	Lot		$408,910.80
380.00	Process Equipment	1990	Lot		$59,880.00
380.00	Process Equipment	1981	Lot		$131,573.19
354.40	Piping	1990	Lot		$7,315.20
354.40	Piping	1981	Lot		$22,345.20
354.40	Electrical Wiring	1990	Lot		$9,727.20
354.40	Electrical Wiring	1981	Lot		$14,294.40
354.40	Electrical Equipment	1990	Lot		$1,641.60
354.40	Electrical Equipment	1981	Lot		$5,942.40
380.00	Process Equipment	2010	Lot		$149,509.20
380.00	Grav. Belt Thick. Sludge Pumps	2019	Ea.		$28,800.00
	Total items 12				$960,797.19

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York30 - Microturbine Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$362,285.04
354.40	Structure	1981	Lot		$93,705.60
354.40	Structure	1968	Lot		$153,921.60
354.40	Structure	2008	Lot		$246,264.00
380.00	Process Equipment	2011	Ea.		$183,180.00
354.40	Piping	2011	Ea.		$274,323.60
354.40	Structure	2011	Ea.		$466,532.40
354.40	Electrical Wiring	2011	Ea.		$346,213.20
354.40	Electrical Equipment	2011	Lot		$3,893,083.20
354.40	Biogas Piping Improvement	2017	Lot		$135,720.00
	Total items 10				$6,155,228.64

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York31 - Pressure Water Pumping Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1968	Lot		$16,020.00
371.20	Process Equipment	1968	Lot		$17,340.00
371.20	Pressurization water pump	2002	Lot		$9,456.00
371.20	Pressurization water pump	2003	Lot		$9,456.00
354.40	Piping	1968	Lot		$3,840.00
	Total items 5				$56,112.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York32 - Chlorine Building (Blower Building)

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$18,019.20
354.40	Structure	1981	Lot		$5,689.20
354.40	Structure	1991	Lot		$372,635.41
354.40	Electrical Wiring	1991	Lot		$28,287.60
354.40	Electrical Equipment	1991	Lot		$20,553.60
354.40	Structure	2011	Lot		$77,805.60
380.20	Process Equipment	2012	Lot		$185,431.20
354.40	Piping	2012	Lot		$15,600.00
354.40	Structure	2012	Lot		$78,600.00
354.40	Electrical Wiring	2012	Lot		$36,204.00
	Total items 10				$838,825.81

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York33 - Digester Bldg.Dig #1, Dig #2 & Dig #3

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$350,980.80
354.40	Structure	1990	Lot		$281,179.51
354.40	Structure	1981	Lot		$11,935.20
380.16	Process Equipment	1990	Lot		$788,419.22
354.40	Electrical Wiring	1981	Lot		$10,846.80
354.40	Electrical Equipment	1981	Lot		$23,240.40
354.40	Electrical Equipment	1990	Lot		$56,600.24
354.40	Piping	1995	Lot		$36,396.00
364.00	Sludge Flow Meter	2001	Ea.		$8,496.00
354.40	Structure	2003	Lot		$8,005.20
380.16	Process Equipment	2003	Lot		$212,199.60
354.40	Piping	2003	Lot		$210,556.80
354.40	Electrical Wiring	2003	Lot		$58,653.60
354.40	Electrical Equipment	2003	Lot		$42,044.40
354.40	Structure	2008	Lot		$913,863.60
380.16	Sludge Transfer Pump	2009	Ea.		$52,483.20
380.16	Digester Recycle pump	2009	Ea.		$52,483.20
380.16	Digester 3 Transfer Pump Piping	2009	Lot		$63,000.00
380.16	Digester 3 Sludge Recycle Piping	2009	Lot		$34,800.00
380.16	Digester 3 Rehab	2009	Lot		$252,000.00
380.16	Digester Mixing System	2009	Lot		$96,480.00
380.16	Process Equipment	2010	Lot		$210,453.60
354.40	Piping	2010	Lot		$724,137.60
354.40	Structure	2010	Lot		$621,210.00
354.40	Electrical Wiring	2010	Lot		$206,110.80
354.40	Electrical Equipment	2010	Lot		$29,388.00
354.40	HVAC Piping/ductwork	2010	Lot		$86,912.40
380.16	Dig. 2 Vaughan Pump Rehab	2013	Lot		$18,740.40
354.40	Valve	2015	Ea.		$28,400.00
364.00	Five Digester Biogas Flow Meters	2015	Lot		$34,000.00
380.00	Digester and Sludge Valves	2014	Lot		$93,320.00
	Total items 31				$5,617,336.57

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York34 - Ash Lagoons

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$113,877.60
380.80	Process Equipment	1981	Lot		$78,314.40
354.40	Piping	1981	Lot		$3,360.00
	Total items 3				$195,552.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York35 - Filtrate Pump Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$84,435.60
380.00	Process Equipment	1981	Lot		$12,504.00
354.40	Piping	1981	Lot		$23,577.60
354.40	Electrical Wiring	1981	Lot		$2,162.40
354.40	Electrical Equipment	1981	Lot		$11,049.60
	Total items 5				$133,729.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York36 - Filtrate Holding Tanks

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$82,527.60
380.00	Process Equipment	1981	Lot		$362,016.00
354.40	Piping	1981	Lot		$960.00
	Total items 3				$445,503.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York37 - Substation #1

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	5000 Amp Bus	2018	Lot		$59,325.60
354.40	5000 Amp Bus	2016	Lot		$55,289.54
	Total items	2			$114,615.14

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York40 - Substation #3

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Electrical Wiring	2020	Lot		$439,802.40
354.40	Electrical Equipment	2020	Lot		$1,036,604.40
	Total items 2				$1,476,406.80

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York41 - Substation #4

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Electrical Wiring	1989	Lot		$19,408.80
354.40	Electrical Equipment	1989	Lot		$275,292.00
354.40	Electrical Equipment	1996	Lot		$3,200.40
	Total items	3			$297,901.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York42 - Primary Clarifier & Train 2 Scum Boxes

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1991	Lot		$48,717.38
354.40	Structure	1981	Lot		$30,601.20
380.15	Process Equipment	1991	Lot		$48,574.44
380.15	Process Equipment	1981	Lot		$3,240.00
354.40	Piping	1991	Lot		$8,666.64
354.40	Piping	1981	Lot		$6,435.60
354.40	Electrical Wiring	1991	Lot		$4,030.43
354.40	Electrical Wiring	1981	Lot		$536.40
354.40	Electrical Equipment	1991	Lot		$2,556.00
354.40	Electrical Equipment	1981	Lot		$20,169.60
380.15	Process Equipment	2010	Lot		$35,640.00
354.40	Piping	2010	Lot		$1,440.00
354.40	Structure	2010	Lot		$6,984.00
354.40	Electrical Wiring	2010	Lot		$2,628.00
	Total items 14				$220,219.69

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York43 - T3 Remote Scum Box #1, 2 & 3

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$56,400.00
380.15	Process Equipment	2019	Lot		$52,800.00
354.40	Piping	1988	Lot		$13,200.00
354.40	Electrical Wiring	1988	Lot		$5,348.40
354.40	Electrical Equipment	1988	Lot		$1,200.00
380.15	Scum Pump	2014	Lot		$11,815.20
	Total items	6			$140,763.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York44 - Train 3 Control Scum Box

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$15,600.00
380.15	Process Equipment	1988	Lot		$18,000.00
354.40	Piping	1988	Lot		$8,400.00
354.40	Electrical Wiring	1988	Lot		$3,082.80
354.40	Electrical Equipment	1988	Lot		$1,200.00
	Total items 5				$46,282.80

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York45 - Train 3 Decant Grinder Pump Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1988	Lot		$12,000.00
380.00	Process Equipment	1988	Lot		$4,800.00
380.00	Gorman Rupp Pump	2002	Ea.		$4,200.00
354.40	Electrical Wiring	1988	Lot		$2,677.20
354.40	Electrical Equipment	1988	Lot		$1,200.00
	Total items	5			$24,877.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York46 - Cascade

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$97,988.40
380.00	Process Equipment	1981	Lot		$8,932.80
354.40	Piping	1981	Lot		$16,326.00
354.40	Electrical Equipment	1981	Lot		$2,162.40
	Total items 4				$125,409.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York47 - Train 2 Effluent Pumping Station

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$289,792.80
380.00	Process Equipment	2019	Lot		$669,754.80
354.40	Electrical Wiring	1990	Lot		$7,491.60
354.40	Electrical Equipment	1990	Lot		$2,931.60
380.00	Process Equipment	2010	Lot		$168,330.00
354.40	Electrical Wiring	2010	Lot		$1,620.00
	Total items	6			$1,139,920.80

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York48 - Train 2 Effluent Bypass Chambers

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1990	Lot		$5,576.40
354.40	Piping	1990	Lot		$232.80
354.40	Electrical Wiring	1990	Lot		$2,281.20
354.40	Structure	2003	Lot		$79,167.60
	Total items 4				$87,258.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York49 - Ground Water Well #2

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1954	Lot		$939.60
354.40	Structure	1991	Lot		$12,000.00
354.40	Electrical Wiring	1991	Lot		$2,106.00
	Total items 3				$15,045.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York50 - Flotation Thickener Bypass Chamber

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$8,929.20
354.40	Piping	1981	Lot		$5,112.00
	Total items	2			$14,041.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York51 - T-2 CLF Effluent Diversion Chamber

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.4	Structure	1981	Lot		$8,929.20
354.4	Piping	1981	Lot		$5,112.00
	Total items	2			$14,041.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York52 - T-1 FCLF Splitter Box (Old Tank 9)

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.4	Structure	1981	Lot		$23,377.20
380.15	Process Equipment	1981	Lot		$7,320.00
354.4	Piping	1981	Lot		$34,502.40
	Total items 3				$65,199.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York53 - Train 3 Raw Sewage Flow Meter

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.4	Structure	1990	Lot		$136.80
364	Flow Meter	1990	Lot		$6,000.00
354.4	Electrical Wiring	1990	Lot		$758.40
	Total items 3				$6,895.20

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York54 - Waste Gas Burner Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.4	Structure	1981	Lot		$18,951.60
354.4	Piping	1981	Lot		$17,100.00
354.4	Electrical Wiring	1981	Lot		$594.00
354.4	Electrical Equipment	1981	Lot		$4,197.60
380	Process Equipment	2004	Lot		$57,218.40
	Total items 5				$98,061.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York55 - Administration Building

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.70	Structure	1989	Lot		$393,145.56
394.00	Process Equipment	1989	Lot		$182,487.70
354.70	Piping	1989	Lot		$44,862.60
354.70	Electrical Wiring	1989	Lot		$22,839.53
354.70	Electrical Equipment	1989	Lot		$7,480.92
394.13	Lab Dishwasher	1999	Ea.		$7,996.80
394.18	Operator's WEStation	2000	Ea.		$35,914.80
394.18	Fume Hood	2004	Ea.		$4,518.00
354.70	Structure (Flooring)	2007	Lot		$10,368.00
394.18	Spectrophoto (AA)	2007	Ea.		$70,920.00
394.18	Spectrophoto (PO4)	2007	Ea.		$17,262.00
394.00	Process Equipment	2008	Lot		$28,033.20
394.00	Laboratory Equipment	2009	Lot		$18,288.00
394.00	Process Equipment	2009	Lot		$10,800.00
354.70	Piping	2009	Lot		$1,375.20
354.70	Structure	2009	Lot		$560,232.00
354.70	Electrical Wiring	2009	Lot		$45,952.80
354.70	Electrical Equipment	2009	Lot		$15,270.00
354.70	HVAC Equipment	2009	Lot		$281,024.40
354.70	HVAC Piping/Ductwork	2009	Lot		$131,853.60
354.70	UV Communication Boards (3)	2014	Lot		$26,796.00
390.00	Servers for GE Plant Operation System	2014	Lot		$19,090.80
390.00	PI Server and System Upgrades	2014	Lot		$27,976.80
390.00	PI Server and System Upgrades	2014	Lot		$13,236.00
394.00	Kjeltec 8200 Distillation Unit	2014	Lot		$13,146.00
394.00	Lab Duct Coil	2014	Lot		$20,376.00
394.00	Supply and Return Line	2014	Lot		$15,060.00
394.00	Wilo pumps (2)	2014	Lot		$12,117.60
394.00	Wash Water Pump	2014	Lot		$6,912.00
394.00	Wilo Pump (1)	2014	Lot		$15,027.60
394.18	EAM Software	2015	Lot		$18,720.00
394.00	6 System Workstation	2015	Lot		$18,092.40
394.00	Fume Hood	2018	Lot		$17,420.40
354.70	Computer	2016	Lot		$9,707.80
354.70	Computer	2016	Lot		$9,599.96
394.00	Lab Glassware	2016	Lot		$17,120.40
	Total items 36				$2,151,024.86

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York56 - Effluent Flow Meter Vault

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1989	Lot		$15,699.60
364.00	Process Equipment	1989	Lot		$4,620.00
364.00	Flow meter	2002	Ea.		$4,620.00
	Total items	3			$24,939.60

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York58 - Site

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$388,809.60
354.40	Structure	1991	Lot		$3,817,826.40
380.00	Process Equipment	1981	Lot		$847,623.60
380.00	Process Equipment	1991	Lot		$4,046.08
354.40	Piping	1991	Lot		$4,463,065.20
354.40	Electrical Wiring	1981	Lot		$359,335.20
354.40	Electrical Wiring	1991	Lot		$2,609,763.48
354.40	Electrical Wiring	2002	Lot		$36,000.00
354.40	Electrical Equipment	1981	Lot		$60,704.40
354.40	Piping	1989	Lot		$128,700.00
354.40	Paving	1989	Lot		$4,853.64
354.40	Electrical Equipment	1991	Lot		$278,308.80
354.40	Train 3 Forcemain	2001	Ea.		$363,578.40
354.40	Level Sensors	2001	Ea.		$9,570.00
354.40	Structure	2003	Lot		$57,366.00
354.40	Piping	2003	Lot		$38,514.00
354.40	Paving	2003	Lot		$9,360.00
380.00	Equipment	2003	Lot		$5,640.00
354.40	Paving	2005	Lot		$42,006.00
354.40	Structure	2005	Lot		$10,092.00
354.40	Electric Equip	2005	Lot		$4,368.00
354.40	Hot Water Piping	2006	Lot		$58,800.00
380.00	Process Equipment	2008	Lot		$45,423.60
354.40	Piping	2008	Lot		$18,000.00
354.40	Paving	2008	Lot		$12,000.00
394.00	Isco Samplers	2009	Ea.		$11,904.00
354.40	Piping	2010	Lot		$150,868.80
354.40	Paving	2010	Lot		$123,598.80
354.40	Electrical Wiring	2010	Lot		$155,920.80
354.40	Electrical Equipment	2010	Lot		$28,720.80
354.40	Fencing	2010	Lot		$52,263.60
354.40	Structure	2011	Lot		$182,442.00
354.40	Piping	2011	Lot		$343,486.80
354.40	Paving	2011	Lot		$94,184.40
354.40	Electrical Wiring	2011	Lot		$645,932.40
354.40	Electrical Equipment	2011	Lot		$1,635,600.00
380.00	Process Piping	2012	Lot		$43,633.20
354.40	Paving	2012	Lot		$10,860.00
354.40	Electrical Wiring	2012	Lot		$1,614.00
354.40	HD Network Communcation Gate	2015	Lot		$6,892.80
380.00	Trash Pump	2015	Lot		$10,665.60
354.40	Utility Water Header	2015	Lot		$17,286.00

Total items	42	$17,189,628.40

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Vehicle Storage Building - Account 354.4 - Structures & Improvements - York59

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.70	Structure	1991	Lot		$276,395.88
354.70	Electrical Wiring	1991	Lot		$25,850.40
380.00	Process Equip	2005	Lot		$76,569.60
354.70	Electric Equip	2005	Lot		$7,800.00
354.70	Electric Wiring	2005	Lot		$5,061.60
354.70	Piping	2005	Lot		$1,262.40
354.70	Electrical Wiring	2010	Lot		$4,357.20
354.70	Electrical Equipment	2010	Lot		$294.00
354.70	HVAC Equipment	2010	Lot		$58,924.80
354.70	HVAC Piping/Ductwork	2010	Lot		$59,047.20
	Total items 10				$515,563.08

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 354.4 - Structures & Improvements - York60 - Valve Chamber T-16

Acct No.	Item	Year Installed	Quantity Unit	Quantity No.	Original Cost
354.40	Structure	1981	Lot		$31,045.20
354.40	Process Equipment	1981	Lot		$12,210.00
354.40	Piping	1981	Lot		$5,770.80
	Total items 3				$49,026.00

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 391 - York61 - Transportation Equipment

Acct No.	Item	Model Year	Quantity Unit No.	Original Cost
391.50	Pickup	2005	602	$18,531.91
391.50	Dump Truck	1986	624	$31,359.53
391.50	Stake Body Truck	2011	639	$46,136.65
391.50	Vactor Truck	1990	640	$155,455.76
391.50	Knuckle Boom Truck	1991	645	$116,385.29
391.50	Ford 3500	2000	647	$34,720.84
391.80	Trailer	1987	206	$2,273.50
391.50	Ford E-350	2002	212	$31,197.46
	Total items 8			$436,060.94

APPENDIX B: COLLECTION AND CONVENANCE INVENTORY

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 363 - Sanitary Sewer Services Connection

Facility Description	Year Installed	Count	Actual Cost
Sanitary Sewer Service Connection - Fireside Sewer Replacement	2019	22	$81,528.00
Sanitary Sewer Service Connection - 2015 Sewer Improvements	2015	34	$123,763.20
Sanitary Sewer Service Connection - Arch Street Interceptor	2011	6	$26,100.00
Sanitary Sewer Service Connection - Northwest Triangle	2009	34	$62,832.00
Sanitary Sewer Service Connection	2008	7	$13,206.88
Sanitary Sewer Service Connection	2004	6	$9,692.31
Sanitary Sewer Service Connection	2003	110	$167,178.16
Sanitary Sewer Service Connection	2002	19	$28,203.28
Sanitary Sewer Service Connection - Willis Run	2001	18	$25,921.99
Sanitary Sewer Service Connection	1999	23	$31,639.52
Sanitary Sewer Service Connection	1998	15	$20,161.09
Sanitary Sewer Service Connection	1996	7	$8,931.73
Sanitary Sewer Service Connection	1993	25	$29,571.88
Sanitary Sewer Service Connection	1992	36	$40,744.48
Sanitary Sewer Service Connection	1989	2	$2,095.57
Sanitary Sewer Service Connection	1988	5	$5,129.95
Sanitary Sewer Service Connection	1987	4	$4,001.34
Sanitary Sewer Service Connection - Tyler Run	1983	14	$12,922.80
Sanitary Sewer Service Connection - Codorus Creek	1983	134	$123,701.03
Sanitary Sewer Service Connection	1980	236	$173,442.63
Sanitary Sewer Service Connection	1979	4	$2,727.20
Sanitary Sewer Service Connection	1971	20	$7,178.98
Sanitary Sewer Service Connection	1965	12	$2,645.46
Sanitary Sewer Service Connection	1963	19	$3,886.69
Sanitary Sewer Service Connection	1962	35	$6,929.24
Sanitary Sewer Service Connection	1961	27	$5,192.16
Sanitary Sewer Service Connection	1958	39	$6,720.59
Sanitary Sewer Service Connection	1957	47	$7,725.70
Sanitary Sewer Service Connection	1956	53	$8,326.90
Sanitary Sewer Service Connection	1955	92	$13,785.83
Sanitary Sewer Service Connection	1954	260	$37,070.99
Sanitary Sewer Service Connection	1953	1,220	$166,192.81
Sanitary Sewer Service Connection	1952	9	$1,162.67
Sanitary Sewer Service Connection	1951	17	$2,095.80

Sanitary Sewer Service Connection		1950	32	$3,705.28
Sanitary Sewer Service Connection		1949	9	$974.68
Sanitary Sewer Service Connection		1948	8	$837.32
Sanitary Sewer Service Connection		1947	93	$8,720.35
Sanitary Sewer Service Connection		1946	120	$9,426.67
Sanitary Sewer Service Connection		1945	29	$2,027.92
Sanitary Sewer Service Connection		1944	37	$2,511.74
Sanitary Sewer Service Connection		1943	8,138	$535,817.42
Sanitary Sewer Service Connection		1942	117	$7,331.55
Sanitary Sewer Service Connection		1941	10	$585.76
Sanitary Sewer Service Connection		1940	50	$2,747.18
Sanitary Sewer Service Connection		1939	131	$7,019.15
Sanitary Sewer Service Connection		1938	190	$10,180.44
Sanitary Sewer Service Connection		1937	180	$9,603.76
Sanitary Sewer Service Connection		1936	397	$18,567.73
Sanitary Sewer Service Connection		1935	131	$5,829.46
Sanitary Sewer Service Connection		1934	32	$1,438.52
Sanitary Sewer Service Connection		1933	9	$347.37
Sanitary Sewer Service Connection		1932	166	$5,917.10
Sanitary Sewer Service Connection		1931	348	$14,300.75
Sanitary Sewer Service Connection		1930	518	$23,874.10
Sanitary Sewer Service Connection		1928	83	$3,900.76
Sanitary Sewer Service Connection		1927	218	$10,195.88
Sanitary Sewer Service Connection		1926	728	$34,379.21
Sanitary Sewer Service Connection		1925	1,078	$50,662.92
Sanitary Sewer Service Connection		1924	27	$1,317.96
Sanitary Sewer Service Connection		1922	6	$237.03
Sanitary Sewer Service Connection		1921	2	$91.72
Sanitary Sewer Service Connection		1919	13	$584.40
Sanitary Sewer Service Connection		1917	62	$2,547.84
Sanitary Sewer Service Connection		1916	17	$501.76
Sanitary Sewer Service Connection		1904	59	$1,299.35
	Totals		**15,649**	**$2,039,891.97**

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 361 - Collection Sewers - Manholes

Facility Description	Year Installed	Count	Actual Cost
Manholes - Manchester Interceptor	2019	9	$70,200.00
Manholes - Fireside Sewer Replacement	2018	11	$59,820.00
Manholes - 2015 Sewer Improvements	2015	5	$28,317.60
Manholes - Poorhouse Run Interceptor	2011	8	$484,440.00
Manholes - Arch Street Interceptor	2011	3	$37,260.00
Manholes - Willis Run Siphon Chambers	2011	2	$635,400.00
Manholes - Northwest Triangle	2009	10	$57,300.00
Manholes	2008	4	$58,316.09
Manholes	2004	3	$37,447.56
Manholes	2003	24	$281,854.09
Manholes	2002	14	$160,583.28
Manholes - Roosevelt Ave Willis Run	2001	4	$44,512.51
Manholes	1999	8	$85,039.03
Manholes	1998	13	$135,018.24
Manholes	1996	10	$98,597.00
Manholes - Upper Codorus	1993	1	$9,140.40
Manholes	1993	8	$73,123.18
Manholes - Upper Codorus	1992	21	$183,658.84
Manholes - Upper Codorus	1992	5	$43,728.30
Manholes	1989	2	$16,193.07
Manholes	1988	5	$39,640.56
Manholes	1987	2	$15,459.73
Manholes - Tyler Run	1983	31	$221,134.48
Manholes - Codorus Creek	1983	57	$406,602.10
Manholes	1980	127	$721,230.04
Manholes	1979	4	$21,073.79
Manholes	1971	2	$5,547.40
Manholes	1965	4	$6,814.07
Manholes	1963	10	$15,807.10
Manholes	1962	11	$16,828.16
Manholes	1961	19	$28,233.48
Manholes	1958	15	$19,973.79
Manholes	1957	10	$12,701.82
Manholes	1956	20	$24,280.83
Manholes	1955	34	$39,368.62
Manholes	1954	89	$98,056.65
Manholes	1953	187	$196,843.12

Manholes		1952	4	$3,993.00
Manholes		1951	8	$7,621.09
Manholes		1950	16	$14,315.86
Manholes		1949	3	$2,510.54
Manholes		1948	4	$3,235.10
Manholes		1947	21	$15,215.87
Manholes		1946	27	$16,389.56
Manholes		1945	5	$2,701.77
Manholes		1944	6	$3,147.38
Manholes		1943	1066	$542,353.68
Manholes		1942	33	$15,979.03
Manholes		1941	3	$1,357.90
Manholes		1940	18	$7,642.14
Manholes		1939	33	$13,663.23
Manholes		1938	43	$17,803.60
Manholes		1937	43	$17,728.16
Manholes		1936	67	$24,214.16
Manholes		1935	19	$6,533.37
Manholes		1934	7	$2,431.59
Manholes		1933	3	$894.74
Manholes		1932	12	$3,305.28
Manholes		1931	58	$18,417.64
Manholes		1930	80	$28,491.38
Manholes		1928	15	$5,447.40
Manholes		1927	22	$7,950.92
Manholes		1926	101	$36,856.33
Manholes		1925	100	$36,315.98
Manholes		1924	2	$754.39
Manholes		1921	3	$1,063.16
Manholes		1917	9	$2,857.91
Manholes		1916	2	$456.14
Manholes		1904	2	$340.35
	Totals		**2627**	**$5,351,533.57**

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Account 361 - Collection Sewers - Pipes

Facility Description	Year Installed	Size of Pipe (in)	Length of Pipe (ft)	Actual Cost
Sanitary Sewers - Fireside Sewer Replacement	2019	10	1,389.00	$336,231.65
Sanitary Sewers - Fireside Sewer Replacement	2019	12	545.00	$131,926.75
Sanitary Sewers - Manchester Interceptor	2019	36	1,675.00	$3,005,108.40
Sanitary Sewer - 2015 Sewer Improvements	2015	8	540.00	$265,807.20
Sanitary Sewers - Poorhouse Run Replacement	2011	27	70.00	$275,730.10
Sanitary Sewers - Arch Street Interceptor	2011	30	862.00	$375,426.00
Sanitary Sewers - Poorhouse Run Replacement	2011	36	302.00	$1,189,578.41
Sanitary Sewers - Poorhouse Run Replacement	2011	48	25.00	$98,475.03
Sanitary Sewers - Poorhouse Run Replacement	2011	60	44.00	$173,316.06
Sanitary Sewer - North West Triangle	2009	18	801.00	$267,441.58
Sanitary Sewer - North West Triangle	2009	24	1,290.00	$430,711.17
Sanitary Sewer - North West Triangle	2009	27	426.00	$142,234.85
Sanitary Sewers	2004	8	494.77	$17,801.50
Sanitary Sewers	2003	8	165.66	$5,607.58
Sanitary Sewers - Arch Street Interceptor	2003	18	563.70	$53,350.26
Sanitary Sewers - Arch Street Interceptor	2003	24	1,387.78	$200,369.44
Sanitary Sewers - Arch Street Interceptor	2003	27	1,299.62	$285,604.80
Sanitary Sewers - Arch Street Interceptor	2003	30	1,376.15	$289,954.21
Sanitary Sewers	2002	8	527.25	$17,431.44
Sanitary Sewers	2002	15	767.89	$53,365.70
Sanitary Sewers	2002	16	1,054.49	$97,473.18
Sanitary Sewers - Richland Ave	2002	24	25.00	$20,900.00
Sanitary Sewers - Roosevelt Ave Willis Run	2001	16	165.00	$88,531.53
Sanitary Sewers - Roosevelt Ave Willis Run	2001	18	304.07	$163,149.94
Sanitary Sewers - Roosevelt Ave Willis Run	2001	27	446.87	$239,767.94
Sanitary Sewers	1999	8	736.84	$22,576.01
Sanitary Sewers	1999	10	449.09	$18,252.54
Sanitary Sewers	1998	8	30.91	$925.46
Sanitary Sewers	1998	12	30.91	$1,529.83
Sanitary Sewers	1998	18	1,263.35	$105,741.13
Sanitary Sewers	1996	10	2,295.55	$86,539.42
Sanitary Sewers	1993	8	708.18	$18,657.50
Sanitary Sewers	1993	16	24.76	$1,823.66
Sanitary Sewers - Upper Codorus	1993	20	280.95	$129,480.00
Sanitary Sewers	1993	24	368.39	$41,397.13
Sanitary Sewers	1993	27	248.77	$40,796.31
Sanitary Sewers	1992	8	8.40	$211.71

Sanitary Sewers - Upper Codorus	1992	30	1,127.40	$725,700.00
Sanitary Sewers - Upper Codorus	1992	42	4,264.66	$1,729,864.80
Sanitary Sewers	1989	48	38.50	$10,029.94
Sanitary Sewers	1988	12	203.91	$7,702.54
Sanitary Sewers	1988	14	207.00	$9,943.07
Sanitary Sewers	1988	16	206.85	$13,216.03
Sanitary Sewers	1988	48	394.33	$100,593.41
Sanitary Sewers	1987	8	14.00	$311.92
Sanitary Sewers	1983	8	2,462.71	$50,635.49
Sanitary Sewers	1983	8	2,823.14	$58,046.35
Sanitary Sewers	1983	15	148.92	$6,436.30
Sanitary Sewers	1983	18	17.42	$1,001.70
Sanitary Sewers - Tyler Run	1983	21	1,557.27	$445,659.50
Sanitary Sewers - Tyler Run	1983	24	3,828.19	$1,095,553.30
Sanitary Sewers	1983	30	34.40	$4,402.59
Sanitary Sewers - Codorus Creek	1983	48	5,686.02	$5,131,377.19
Sanitary Sewers - Codorus Creek	1983	54	1,877.90	$1,694,720.03
Sanitary Sewers - Codorus Creek	1983	72	5,174.19	$4,669,474.05
Sanitary Sewers	1980	6	1,653.87	$27,071.85
Sanitary Sewers	1980	8	9,150.67	$149,785.61
Sanitary Sewers	1980	10	662.53	$14,386.02
Sanitary Sewers	1980	12	5,815.81	$157,367.86
Sanitary Sewers	1980	30	5,376.05	$547,752.60
Sanitary Sewers	1980	36	3,136.21	$429,546.92
Sanitary Sewers	1979	12	478.41	$12,009.22
Sanitary Sewers	1979	15	122.00	$3,894.31
Sanitary Sewers	1979	18	223.98	$9,509.57
Sanitary Sewers	1971	10	218.66	$2,319.01
Sanitary Sewers	1965	8	725.20	$3,560.85
Sanitary Sewers	1963	8	380.48	$1,733.54
Sanitary Sewers	1963	8	572.83	$2,609.93
Sanitary Sewers	1963	12	646.49	$4,869.11
Sanitary Sewers	1962	8	2,232.22	$9,843.02
Sanitary Sewers	1961	8	2,505.56	$10,731.56
Sanitary Sewers	1958	8	3,290.52	$12,629.33
Sanitary Sewers	1957	8	2,108.74	$7,720.33
Sanitary Sewers	1956	8	3,084.68	$10,794.22
Sanitary Sewers	1955	8	4,968.77	$16,583.17
Sanitary Sewers	1954	8	15,486.55	$49,180.03
Sanitary Sewers	1954	10	2,200.32	$9,269.08
Sanitary Sewers	1953	8	30,360.53	$92,116.03
Sanitary Sewers	1953	10	3,255.75	$13,103.72
Sanitary Sewers	1953	15	755.54	$4,818.66
Sanitary Sewers	1953	18	127.00	$1,077.34
Sanitary Sewers	1953	20	627.42	$6,915.30
Sanitary Sewers	1952	8	299.85	$862.75
Sanitary Sewers	1951	8	943.45	$2,590.57

Sanitary Sewers	1950	8	1,095.33	$2,824.80
Sanitary Sewers	1950	21	787.11	$7,373.97
Sanitary Sewers	1950	24	677.64	$7,454.09
Sanitary Sewers	1949	8	329.25	$794.18
Sanitary Sewers	1948	8	571.22	$1,331.62
Sanitary Sewers	1947	8	2,629.06	$5,490.67
Sanitary Sewers	1946	8	4,020.96	$7,035.26
Sanitary Sewers	1945	8	723.65	$1,127.08
Sanitary Sewers	1944	8	506.72	$766.15
Sanitary Sewers	1943	6	356.59	$522.92
Sanitary Sewers	1943	8	1,102.75	$1,617.15
Sanitary Sewers	1943	8	171,457.23	$251,436.52
Sanitary Sewers	1943	10	16,395.01	$31,893.45
Sanitary Sewers	1943	12	8,924.70	$21,634.91
Sanitary Sewers	1943	15	8,221.39	$25,343.07
Sanitary Sewers	1943	18	6,040.05	$24,764.97
Sanitary Sewers	1943	21	812.06	$4,326.00
Sanitary Sewers	1943	22	447.77	$2,800.80
Sanitary Sewers	1943	24	2,604.23	$16,289.26
Sanitary Sewers	1943	27	2,461.95	$22,472.75
Sanitary Sewers	1943	36	2,180.97	$26,761.41
Sanitary Sewers	1942	8	4,717.79	$6,584.49
Sanitary Sewers	1941	8	1,213.70	$1,583.45
Sanitary Sewers	1940	8	2,949.75	$3,609.74
Sanitary Sewers	1939	8	301.50	$359.81
Sanitary Sewers	1939	8	4,879.92	$5,823.71
Sanitary Sewers	1938	8	8,602.76	$10,266.54
Sanitary Sewers	1937	8	9,655.80	$11,474.42
Sanitary Sewers	1936	8	10,121.42	$10,543.46
Sanitary Sewers	1936	10	1,202.32	$1,661.42
Sanitary Sewers	1936	12	2,041.24	$3,515.00
Sanitary Sewers	1936	15	1,459.23	$3,195.26
Sanitary Sewers	1935	8	5,057.51	$5,012.65
Sanitary Sewers	1935	10	664.92	$874.22
Sanitary Sewers	1935	15	93.63	$195.07
Sanitary Sewers	1934	8	795.28	$796.27
Sanitary Sewers	1933	15	1,485.41	$2,684.18
Sanitary Sewers	1932	8	210.90	$167.44
Sanitary Sewers	1932	8	1,958.67	$1,555.02
Sanitary Sewers	1932	10	1,927.64	$2,030.10
Sanitary Sewers	1932	15	561.58	$937.19
Sanitary Sewers	1931	8	12,379.25	$11,330.46
Sanitary Sewers	1931	10	325.04	$394.65
Sanitary Sewers	1930	8	16,585.14	$17,025.10
Sanitary Sewers	1930	12	2,199.51	$3,732.38
Sanitary Sewers	1930	15	57.62	$124.34
Sanitary Sewers	1930	22	466.45	$2,042.32

Sanitary Sewers	1928	8	3,503.10	$3,666.88
Sanitary Sewers	1927	8	4,732.16	$4,929.48
Sanitary Sewers	1926	8	22,578.00	$23,747.80
Sanitary Sewers	1926	10	2,197.67	$3,066.32
Sanitary Sewers	1926	12	795.46	$1,383.08
Sanitary Sewers	1925	8	28,664.41	$30,004.61
Sanitary Sewers	1925	12	656.02	$1,135.15
Sanitary Sewers	1925	15	376.77	$829.01
Sanitary Sewers	1925	36	283.17	$2,480.19
Sanitary Sewers	1924	8	468.25	$509.08
Sanitary Sewers	1922	24	361.13	$1,355.31
Sanitary Sewers	1921	12	106.29	$179.48
Sanitary Sewers	1919	10	846.77	$1,124.66
Sanitary Sewers	1917	8	1,649.47	$1,509.73
Sanitary Sewers	1917	10	16.18	$19.64
Sanitary Sewers	1917	15	720.67	$1,386.53
Sanitary Sewers	1917	18	250.45	$640.92
Sanitary Sewers	1916	8	449.65	$295.59
Sanitary Sewers	1904	8	807.49	$379.75
	Totals		**548,193.00**	**$26,712,768.02**

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Accounts 354.3, 355, 360 - Structures & Improvements - Pumping

Account Number	Facility Description	Year Installed	Count	Actual Cost
354.30	7.5 HP Smith & Loveles Package Pump Station	1980	1	$116,920.51
354.30	Wet Well Structure	1980	1	$15,032.64
354.30	Valve Vault	1980	1	$2,645.74
354.30	Plug Valves	1980	2	$2,766.01
354.30	Check Valves	1980	2	$2,284.96
355.30	Generator	1980	1	$15,032.64
354.30	Automatic Transfer Switch	1980	1	$2,104.57
360.21	Forcemain (ft)	1980	1700	$42,592.47
	Totals		1709	**$199,379.54**

York City Sewer Authority

Acquisition of the Assets of the York City Sewer Authority

Original Cost at May 28th, 2021
Collection System Summary

Account Number	Facility Description	Count (ea or ft)	Actual Cost
363	Services to Customers	15,649	$2,039,891.97
361	Manholes	2,627	$5,351,533.57
361	Pipes	548,193	$26,712,768.02
Various Accounts	Pump Station and Force Main	1,709	$199,379.54
	Totals		**$34,303,573.09**

APPENDIX C: PROPERTY INVENTORY

REAL ESTATE AND EASEMENTS

	GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
1	City of York	Guardian Trust Co.	12/28/1911	18-A / 357	York
2	City of York	P A & S Small Land Co.	11/5/1914	19-G / 642	Agreement
3	City of York	Jane Gresly	6/28/1915	19-U / 368	ROW
4	City of York	Joseph R. Jones	5/22/1917	20-L / 263	Sewer Rents
5	City of York	Bilmeyer & Small Co.	8/8/1918	20-S / 377	ROW
6	City of York	West End Sewer Co.	10/21/1919	21-E / 35	Sewer System
7	City of York	Jacob Bare Est.	7/23/1926	23-N / 558	ROW
8	City of York	William M. Boger	9/23/1926	23-Q / 236	ROW
9	City of York	Ralph K. Trimmer	9/29/1926	23-O / 650	Agreement
10	City of York	Grier Hersh	7/10/1931	24-Z / 628	ROW
11	City of York	York County Poor District	1/27/1932	25-F / 36	ROW
12	City of York	Annie M. Menough	5/6/1932	25-E / 665	ROW
13	City of York	Frederick C. Boesch Exr	5/6/1932	25-E / 666	ROW
14	City of York	Community Swimming Assn Inc	5/10/1932	25-E / 667	ROW
15	City of York	Norard Hosiery Mills Inc.	8/9/1933	25-R / 4	ROW
16	City of York	Agnes Kehm	12/21/1933	25-R / 279	ROW
17	City of York	Sallie S. Bond	12/21/1993	25-4 / 280	ROW
18	City of York	York Hospital	5/11/1936	26-K / 238	York Co
19	City of York	David M. Myers Exr	8/30/1937	26-Z / 267	ROW
20	City of York	York County Institution Dist	6/10/1938	27-I / 515	ROW
21	City of York	J. Victor Jones	6/10/1938	27-I / 516	ROW
22	City of York	York Tack & Nail Works	6/10/1938	27-I / 518	ROW
23	City of York	New York Wire Cloth Co	6/10/1938	27-I / 520	ROW
24	City of York	Home Furniture Co	6/10/1938	27-I / 522	ROW
25	City of York	David P. Klinedinst Trust	6/10/1938	27-I / 524	ROW
26	City of York	American Chain & Cable Co. Inc.	6/10/1938	27-I / 525	ROW
27	City of York	George H. Wolf	6/10/1938	27-I / 527	ROW
28	City of York	Maryland & Penna. Railroad Co.	6/10/1938	27-I / 529	ROW
29	City of York	York County Institution Dist	6/24/1938	27-I / 636	ROW
30	City of York	Ella L. Kleffman	7/21/1938	27-K / 209	ROW
31	City of York	George D. Deardorff	7/21/1938	27-K / 210	ROW
32	City of York	Sarah E. Miller	7/21/1938	27-K / 211	ROW
33	City of York	Howard E. Holland	3/31/1939	27-R / 352	ROW
34	City of York	York Water Co	6/30/1939	27-U / 566	York
35	City of York	York Water Co.	1/10/1941	28-M / 376	Agreement
36	City of York	Ray S. Noonan	9/12/1941	28-W / 267	ROW
37	City of York	Maryland & Penna R R Co	9/12/1941	28-W / 269	ROW
38	City of York	York Independent Oil Co.	9/12/1941	28-W / 272	Consent
39	City of York	Fannie M. Free	7/7/1945	31-I / 182	ROW
40	City of York	Motor Freight Express Inc.	10/20/1945	31-N / 162	Agreement
41	City of York	Pauline L. Lavetan	4/10/1947	32-V / 533	Agreement
42	City of York	C. Kauffman Miller	4/22/1947	33-B / 14	Agreement
43	City of York	Harry R. Lenker	1/17/1950	35-C / 606	Agreement
44	City of York	Marie A. Garner	7/19/1950	35-M / 532	Agreement
45	City of York	George S. Freed	7/19/1950	35-M / 535	Agreement
47	City of York	Heistand Frey	8/1/1950	35-L / 583	ROW
47	City of York	David Y. Herbst	11/4/1950	35-T / 632	ROW

	GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
48	City of York	Penn Dairies Inc.	12/11/1950	35-Y / 108	Agreement
49	City of York	Penn Dairies Inc.	12/11/1950	35-Y / 113	Agreement

In witness whereof, the said The Guardian Trust Company of York Pa. party of the first part, has caused this Indenture to be signed in its corporate name by its President, and has caused to be affixed hereunto the common and corporate seal of the said corporation, attested by its secretary, the day and year first above written. The Words "Board of Directors of" interlined on second page before signing.

The Guardian Trust Company York Pa. Incorporated April 1st 1908. The Guardian Trust Co. of York Pa.

attest By M. D. Martin. President

C. H. Baughman secretary

Received the day of the date of the above Indenture of the above named The City of York, the sum of Twenty seven Thousand Dollars, in full of the consideration money above mentioned.

The Guardian Trust Co. of York, Pa.

C. H. Baughman Treasurer.

State of Pennsylvania ss.
County of York I hereby certify that on this ninth day of December A.D. 1911. before me, the subscriber a notary Public in and for said State, residing in York, Pa. personally appeared Charles H. Baughman the attorney named in the foregoing Deed, and by virtue and in pursuance of the authority therein conferred upon him acknowledged the said Deed to be the act of the said The Guardian Trust Company of York, Pa.

Witness my hand and notarial seal the day and year aforesaid.

George S. Dellinger
Notary Public

George S. Dellinger Notary Public York Pa.

My Commission expires Mar 17. 1915.

Recorded Dec 28th 1911.

George Lau, Recorder
per Peter M. Becker Deputy

13328 The Guardian Trust Co. To The City of York

This Indenture, made the ninth day of December, in the year of our Lord one thousand nine hundred and Eleven (A.D. 1911) Between The Guardian Trust Company of York, Pa. a duly incorporated Corporation under the Laws of the State of Pennsylvania having its principal place of business in the City of York, Pa party of the first part, and The City of York, in said State of Pennsylvania, party of the second part, Witnesseth, that the said party of the first part, for and in consideration of the sum of Twenty-seven Thousand Dollars ($27,000.00) lawful money of the United States of America, unto it well and truly paid by the said party of the second part at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, enfeoffed, released and confirmed, and by these presents does grant, bargain, sell, alien, enfeoff, release and confirm unto the said party of the second part its successors and assigns,

All that lot or piece of ground with the improvements thereon erected, situate at the north east corner of South Duke Street and East Mason Alley, in the South Ward of said City of York. Beginning at the north east corner of said Duke Street and Mason Alley, thence extending northwardly along the east side of said Duke Street, a distance of seventy One and Two tenths feet (71.2) to a point at the South line of the right of way hereinafter mentioned, thence extending eastwardly along the south line of said right of way a distance of sixty six and eight tenths feet (66.8) to property of Florence Campbell and Dora E. McDonnell, thence southwardly along said last mentioned property, a distance of seventy One and Two tenths feet (71.2), to a point on the North side of East Mason Alley, thence westwardly along said Alley sixty six and eight tenths feet (66.8) to the East line of Duke Street, the place of Beginning. Containing in front on said Duke Street

seventy one and two tenths feet (71.2) and extending eastward-ly of equal width sixty six and eight tenths feet (66.8) to property of Florence Campbell and Dora la McDowell.

Said property being parts of the same properties which Margaret Amanda Small Executrix of the last will and testament of John H. Small, late of the City of York, York County, Pa. deceased, by her deed dated the twenty second day of April A.D. 1903, and being part of the same property which Elmer A. Zeigler and Edward P. Stair and Anna L. his wife, by their deed dated the twenty second day of April A.D. 1903, granted and conveyed unto the said party of the first part hereto, which said deeds are respectively recorded in the recorder's Office of York County, Pa. in Record Book "13 T." page 157 and Record Book "13 T." page 162.

The within deed is made executed and delivered in pursuance of a resolution duly adopted by the party of the first part at a regular meeting of the Board of Directors of said Company held the 5th day of December A.D. 1911 at the regular place of business of said Company, by which corporate action power and authority were duly conferred upon the President or Vice President and the Secretary of said Company to grant and convey the above described real estate to the said party of the second part upon payment of the above mentioned consideration money. And also in conformity with an ordinance of said City approved December second, A.D. 1911.

Together with free and uninterrupted right forever of ingress, egress and regress over, upon and along a strip of ground ten feet (10) in width next immediately adjoining on the north the property above described, said strip fronting ten feet (10) on said Duke Street and extending eastwardly sixty six and eight tenths feet (66.8) more or less to said property of Florence Campbell and Dora C. McDowell said right of way over said strip to be for the joint use of said Guardian Trust Company and the City of York, their successors and assigns, and to be

maintained and kept in repair at their joint expenses.

Together with all and singular buildings, ways, waters, watercourses, rights, liberties, privileges, hereditaments and appurtenances whatsoever thereunto belonging, or in anywise appertaining, and the reversions and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, property, claim and demand whatsoever, of the said party of the first part in law, equity, or otherwise howsoever, of in and to the same and every part thereof.

To have and to hold the said property, hereditaments and premises hereby granted or mentioned and intended so to be, with the appurtenances, unto the said party of the second part, its successors and assigns, to and for the only proper use and behoof of the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself, its successors, does by these presents covenant, grant and agree, to and with the said party of the second part, its successors and assigns, that it the said party of the first part, all and singular the hereditaments and premises herein above described and granted or mentioned and intended so to be, with the appurtenances, unto the said party of the second part, its successors and assigns, against it the said party of the first part and against all and every other person or persons whomsoever lawfully claiming or to claim the same or any part thereof, shall and will warrant and forever defend.

The said The Guardian Trust Company of York, as first party, doth hereby constitute and appoint Charles M Baughman to be its attorney for it, and in its name and as and for its corporate act and deed to acknowledge this Deed before any person having authority by the laws of the Commonwealth of Pennsylvania to take such acknowledgment, to the intent that the same may be duly recorded.

#12063. Edward G. S. Myers to David M. Myers et. al.

This Indenture Made the Third day of November in the year of our Lord one thousand Nine Hundred and fourteen. (1914).

Between Edward G. S. Myers of the City of York and County of York and State of Pennsylvania of the first part and David M. Myers Mary J. Myers, Sarah E. Frailey, William H. Myers and Susan S. Eyster all of the said City of York, Pennsylvania of the second part.

Witnesseth, that the said party of the first part, for and in consideration of the sum of Twelve Hundred Dollars ($1200.) Dollars lawful money of the United States of America well and truly paid by the said parties of the second part to the said party of the first part at and before the sealing and delivery of these presents the receipt whereof is hereby acknowledged has granted, bargained, sold, aliened, enfeoffed, released, conveyed and confirmed and by these presents does grant, bargain, sell, alien, enfeoff, release, convey and confirm unto the said parties of the second part their heirs and assigns. ALL THE UNDIVIDED one sixth interest (being the entire interest of the said party of the first part) in and to all that certain lot or piece of ground situate, lying and being on the south side of West Philadelphia Street, in the City of York, Pennsylvania adjoining said West Philadelphia Street on the North Clark Alley on the south, property of Jacob Y. Loucks on the West and property of Emma Constantine on the East; containing in front on said West Philadelphia Street sixty four (64) feet and seven and one Half (7 1/2) inches and extending in length or depth southwardly in equal width two hundred and thirty (230) feet to said Clark Alley.

The said lot or piece of ground became lawfully vested in Edward G. Smyser by the following deeds, to wit;- Eli H. Heiman and wife dated the 15th. day of July A. D. 1880, and recorded in the Recorder's Office of York County, Pennsylvania in Deed Book 6 P. page 52; and of John Fahs dated the 25th. day of March A. D. 1882 and recorded as aforesaid in Record Book "6 W" page 10.

The said Edward G. Smyser in and by his last will and testament in writing duly proved and recorded in the Register's office of York County, Pennsylvania devised the above lots of ground together with the improvements thereon erected to his daughter Ellen L. Myers. The said Ellen L. Myers is now deceased leaving to survive her as her heirs at law the above grantor and the above grantees.

to whom the said lots of ground together with the improvements thereon erected descendedin equal shares under the intestate laws of the Comon Wealth of Pennsylvania the said Ellen L. Myers having diedintestate.

TOGETHER with all and singular the tenements, hereditaments and appurtenances to the same belonging or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits thereof. And Also all the estate, right, title, interest, property, claim and demand whatsoever both in law and equity of the said party of the first part of, in to or out of the said premises and every part and parcel thereof.

TO HAVE AND TO HOLD the said premises with all and singular the appurtenancesunto the said parties of the second part their heirs and assigns, to and for the only proper use and behoof of the said parties of the second partthair heirs and assigns forever.

And the said party of the first part his heirs, executors and administrators do by these presents covenant, grant and agree to and with the said parties of the second part their heirs and assigns, that he the said party of the first part his heirs, all and singular the hereditaments and premises hereinabove described and granted or mentioned and intended so to be, with the appurtenances unto the said parties of the second part their heirs and assigns against the said part--- of the first part and his heirs and against all and every other person or persons whomsoever lawfully claiming or to claim the same of any part thereof shall and will by these presents Warrant and Forever Defend.

IN WITNESS WHEREOF the said party of the first part has hereunto set his hand and seal. the day and year first above written.

Signed, sealed and delivered in the presence of
Noah C. May
John C. Deeter

Edward G. S. Myers. (seal)

RECEIVED the day of the date of the within or foregoing indenture of the said parties of the second part the sum of Twelve Hundred Dollars ($1200.) in full of the consideration money within mentioned.

Witness as.
Noah C. May

Edward G. S. Myers

State of Penna. } SS.
County of York }

On the Third day of November in the year one thousand nine hundred and fourteen (1914)
before me, the subscriber an alderman in and for said County came the above named Edward G. S. Myers and he acknowledged the above indenture to be his act and deed and desired the same might be recorded as such.

Witness my hand and official seal.

Noah C. May (seal)
Alderman

My commission expires the first Monday of January 1920.

Noah C. May 5th. Ward Alderman York city Pa.

Recorded Nov. 5th. 1914.
August sonneman Jr. recorder.

#12064. P. A. & S. Small Land Co. to The City of York. Pa.

In consideration of the sum of One Dollar ($1.00) to the P. A. & S. Small Land Company in hand paid by the City of York, Pennsylvania at and before the execution and delivery of these presents the receipt whereof is hereby acknowledged the undersigned P. A. & S Small Land Company hereby consents and agrees to the construction and maintenance by the City of York of an outfall sewer proposed to be laid over the portion of the property of the Undersigned hereinafter described, to wit;-

Beginning at a point at the intersection of North George Street by Hamilton Avenue in the City of York, Pennsylvania and extending thence in a generally northeastwardly direction in West Manchester Township, York county Pennsylvania under and through a strip of ground fifty (50) feet in width comonly known as Hamilton Avenue, a distance of Six Hundred Nineteen (619) feet more or less to the intersection of said Hamilton Avenue by the eastern side of North Duke Street in the City of York, Pennsylvania.

if the same were extended and for the said consideration the undersigned for itself and its success ors hereby remises and releases the said The City of York from all claims for damages which may be done the hereinabove described piece or strip of ground by reason of the construction under and through the said strip of ground known as Hamilton Avenue of the outfall sewer hereinabove mentioned. IN WITNESSWHEREOF the undersigned P. A. & S. Small Land Company Has hereunto affixed its common and corporate seal duly attested this 26th. day of October 1914.

The Word Beginning with "said" on line 23 & ending with "attached" on line 24 & stricken out before delivery.

Attest.
George Small

P. A. & S. Small Land Company
By Samuel Small
President.

P. A. & S. Small Land Company York Pa. 1914

State of Pennsylvania } SS.
County of York }

On this 26th. day of October 1914, before me, the subscriber a Notary personally personally appeared Samuel Small President of the P. A. & S. Small Land Company who being duly affirmed according to law, deposes and says that he was personally present at the execution of the foregoing instrument of writing and saw the common or corporate seal of the said corporation duly affixed thereto; that the said seal so affixed thereto is the common or corporate seal of the said corporation; that the above instrument of writing was duly sealed and delivered by him as President of the said Corporation as and for the act and deed of the said corporation for the uses and purposes therein mentioned and that the names of these deponents as President and of George Small as Secretary of said corporation subscribed to the above instrument of writing in attestation of its due execution and delivery are of theirand each of their respective handwritings.

Affirmed and subscribed to
before me the day and year
aforesaid.
Witness my hand and Notarial seal.
Andrew J. Hershey
Notary Public
Commission expires Jan. 21, 1915.

Samuel Small

Andrew J. Hershey Notary Public York, Pa.

Recorded November 5th, 1914.
August Conneman Jr. recorder

#12068. Edgar A. Fisher et.ux. to Ernest G. Graser

This indenture made the fourth day of November in the year of our Lord one thousand nine hundred and fourteen.

Between Edgar A. Fisher and Edith G. Fisher his wife both of the township of West Manchester York County and State of Penny lvania of the first part Ernest G. Graser of the afore said named place of the second part.

Witnesseth, that the said parties of the first part for and in consideration of the sum of One Hundred ($100.00/100) Dollars lawful money of the United States of America well and truly paid by the said party of the second part to the said parties of the first part at and before the sealing and delivery of these presents the receipt whereof is hereby acknowledged have granted, bargained, sold, aliened, enfeoffed, released, conveyed and confirmed and by these presents do grant, bargain, sell, alien, enfeoff, release, convey and confirm unto the said party of the second part his heirs and assigns. All the following described lot or piece of ground situate on the east side of North George Street in West Manchester Township, York County Pennsylvania bounded, limited and described as follows to wit;-

Beginning at a point on the east side of North George Street at the intersection of the eastern line of North George Street by the Northern line of First Avenue and extending thence along the east ern line of said North George Street northwardly twenty four feet to a point at property now or formerly of P. A. & S. Small Land Company thence along said last mentioned property Eastwardly at right angles with the eastern line of said North George Street one hundred and fifty feet more or less to the Western line of Albright Avenue thence along said Western line of Albright Avenue southwardly twenty four feet to the Northern line of First Avenue thence along the Northern line of said First Avenue and at right angles with the eastern line of said North George Street westwardly one hundred and fifty feet to the place of beginning.

Containing in front on North George Street twenty four feet and extending back eastwardly of the same and equal width through out one hundred and fifty feet more or less to said Albright Avenue

Being the same lot or piece of ground which P. A. & S. Small Land Company by its deed dated August 30th. 1913, and recorded in the office of York, County, Pa., in Record Book 19 A, page 447 gra nted unto Edgar A. Fisher grantor herein.

Together with all and singular the tenements, hereditaments and appurtenances to the same belong ing or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, And also all the estate, right, title, property, claim and demand what soever both in law and equity of the said parties of the first part of, in to or out of the said premisesand every part or parcel thereof.

To Have and To Hold the said premises with all and singular the appurtenances unto the said party of the second part his heirs and assigns to a nd for the only proper use and behoof of the said party of the second part his heirs and assigns forever.

SUBJECT to the following condition;- that the said grantee his heirs and assigns shall not erect on the above described premises and dwelling house or other building within forty feet of the east side of North George Street;-

And the said Edgar A. Fisher and Edith G. Fisher his wife their heirs, executors and administra tors do by these presents covenant, grant and agree to and with the said party of the second part his heirs and assigns that they the said parties of the first part part their heirs all and singular

Sworn and subscribed before me, the day and year aforesaid.
Witness my hand and Notarial seal.

W. L. Swetland
Notary Public.
Commission Expires May 24, 1919.

W. L. Swetland Notary Public Philadelphia Pa.

Recorded June 28th, A. D. 1915.
August Lonneman Jr., Recorder.

151111. Jane Kresly et al / to / City of York

This Indenture, Made this 21st day of June in the year nineteen hundred and fifteen (1915), between Jane Kresly, Ellen Kresly and Elizabeth Kresly, all of the City of York, Pennsylvania, Grantors of the first part, and the City of York, a municipal corporation of Pennsylvania, Grantee, of the second part, Witnesseth:

That said Grantors, for and in consideration of the sum of One Thousand Dollars ($1,000.00), to them in hand paid by the City of York, the receipt whereof is hereby acknowledged, have granted, bargained, sold, released and confirmed, and by these presents do grant, bargain, sell, release and confirm unto said City of York, its successors and assigns, the right, liberty and privilege of entering upon, constructing and forever maintaining a thirty-nine inch brick sewer, according to plans and specifications now determined upon by said City, over, upon, along or under that certain lot or piece of ground, situate in the [illegible] Ward, of the City of York, York County, Pennsylvania, located at the Southeast corner of Grant Street and Hay Alley and fronting on Grant Street forty feet and extending thence Eastwardly of equal width a distance of four hundred ninety feet more or less to low water mark on the West bank of Codorus Creek, upon which lot of ground is erected two one-story frame dwelling houses, which are known and designated as Nos. 1 and 2 in the will of Andrew Kresly, deceased, which were therein devised to Elmira Kresly, mother of the grantors herein, during her life or widowhood, and after her death (which has since occurred)

became absolutely vested in said grantors as will more fully appear by reference to said will which remains of record in the Office of the Register of Wills of York County, in Record Book 2 L, page 868 &c. The course of said sewer through and under said land shall be approximately as follows: Beginning at a manhole (about to be constructed,) in Grant Street at a point two hundred and twenty-one and five-tenths (221.5) feet North twelve degrees fifteen minutes West of an existing manhole in said Grant Street at or near the intersection of said Grant Street with Gas Alley, thence extending from said first mentioned point of beginning through property of said grantors North seventy-three degrees thirty minutes East three hundred and eighteen and seven-tenths (318.7) feet to a point on lands of said grantors, thence continuing through property of said grantors crossing Gay Alley and connecting with the terminus of an existing sewer under the right of way of the Pennsylvania Railroad, North two degrees fifty minutes West, to said point of connection. With the further right in said City to construct, maintain and at all times to have access to a manhole at the junction of said last described line of said sewer with the line thereof above described upon the lands of said grantors. The said City of York, its workmen, employees or contractors, shall have the further right whenever it shall become necessary to exercise the same, of entry upon said above described land for the purpose of making repairs to said sewer.

In a further consideration for this grant, it is hereby stipulated and agreed that said City of York shall replace and restore said buildings on the tract of land above mentioned, as well as any other buildings or property of grantors adjacent thereto, to the same order and condition in which they were before the laying of said sewer. A draft or plan of said sewer through property of said grantors is attached hereto, made part hereof, and marked "Exhibit A."

To Have And To Hold all and singular the rights and privileges hereby granted or mentioned or intended so to be

with the appurtenances unto the said City of York, its successors and assigns, to and for the only proper use and behoof of said City of York, its successors and assigns forever.

And the said Grantors and each of them, for themselves, their heirs and assigns, do hereby remise, release, quit-claim and forever discharge the said City of York, its successors and assigns, of and from all loss, injury and damage which the said grantors, their heirs and assigns, or either or any of them, may suffer or sustain by reason of said City of York constructing, maintaining or repairing said sewer as hereinbefore set forth, and of and from all actions, acts, suits, reckonings, claims and demands for or by reason thereof: Provided, however, that nothing herein contained shall be construed to release the said City of York of any liability for damages to said property by reason of any negligent operation of said sewer.

In Witness Whereof, said grantors have hereunto set their hands and seals, the day and year first above written.

Signed, sealed and delivered in the presence of:
S B Meisenhelder
P. L. Lewis.

Jane Gresly (Seal)
Ellen Gresly (Seal)
Elizabeth Gresly (Seal)

State of Pennsylvania, } ss.
County of York. }

Before me, the subscriber, a Notary Public of said State, residing in the City of York, in said County, personally came the above named Jane Gresly, Ellen Gresly and Elizabeth Gresly (all unmarried), Grantors, who, in due form of law acknowledged the foregoing indenture to be their act and deed, to the end that the same might be recorded as such.

Witness my hand and seal, this 21st day of June, A.D. 1915.

Samuel B Meisenhelder
Notary Public.

(Samuel B Meisenhelder Notary Public York Penna.)

My commission expires Feb 21st 1919.

Recorded June 28th, A. D. 1915.

August Sommerman Jr, Recorder.

6309. Joseph R.Jones et.al. to City of York : Where as,by deed dated the 6th day of October,A.D.one thousand nine hundred sixteen (1916) and recorded in the office for the recording of deeds in and for the county of York in Record Book 20 I,page 164,the Board of Directors of the Poor conveyed unto Joseph R.Jones,George A.Jones,J.Victor Jones,and Harvey C.Jones,

a lot of ground in the City of York bounded and described as follows;

Beginning at a post on the west side of BroadStreet one hundred ninety six and three tenths feet north of the north side of Walnut Street,and at the north side of a twenty feet wide alley,and extending thence along the north side of said alley south seventy-two and nine-tenths feet,to a post at the right of way of Maryland and Pennsylvania Railroad Company ;thence along said right of way north sixty two degrees forty five minutes west one hundred fifty five and two tenths feet to a point in a stream;thence by other lands of said Poor district north seventy two degrees five minutes east three hundred ninety and one tenth feet to a stake at the west side of Broad Street;thence along the west side of Broad Street south nineteen degrees fifty minutes east one hundred and ten feet to the place of Beginning.

and did thereupon deliver unto the said Joseph R.Jones,George A.Jones,J.Victor Jones and Harvey C.Jones possession of said lot of ground,who after they had entered into Possession of said lot of ground discovered that the City of York had laid a sewer along the southern and western lines of said lot from the east side of Broad Street to the stream commonly known as the Poor House Run.

Now Therefore This Indenture made this fifteenth day of December (1916) between the said Joseph R.Jones,George A.Jones,J.Victor Jones and Harvey C.Jones,of the first part,and the City of York,of the second part,

Witnesseth,that for and in consideration of the sum of One Dollar,lawful money of the United States unto them well and truly paid by the said City of York,of the second part,at and before the ensealing hereof and of the removal forthwith by the said City of York of the portion of said sewer lying along the south side of said lot of ground from Broad Street to the right of way of the Maryland and Pennsylvania Railroad Company,being in length about two hundred eighty three and nineteenths feet,the said parties of the first part do hereby give and grant unto the said party of the second part,its successors and assigns,the right and privilege of forever maintaining the remaining portion of said sewer,to wit:

Beginning at the northern line of a twenty feet wide alley,six feet east of the right of way of the Maryland and Pennsylvania Railroad Company and extending thence in a generally north westerly direction at an average distance of four feet eastwardly from said right of way and nearly parallel therewith one hundred sixty (160) feet,more or less to the said stream known as the Poor House Run,together with the right of ingress,egress and regress to,from and upon the portion of the said lot of ground conveyed as aforesaid by the said Directors of the Poor to the said Joseph R.Jones,George A.Jones,J.Victor Jones and Harvey C.Jones,adjoining the said right of way of the said Maryland and Pennsylvania Railroad Company,and upon which the said portion of said sewer is located,for the purpose of maintaining and repairing said sewer,under and subject,nevertheless to the following conditions which are made a part of this grant:

(a) That the said City of York shall and will forthwith remove the portion of said sewer now constructed along the southern line of the above mentioned lot of ground between Broad Street and the said right of way of the said Maryland and Pennsylvania Railroad Company.

(b) That the said portion of the sewer to remain upon the premises of the said parties of the first part,as hereinbefore provided,shall not exceed twenty inches in diameter,and shall be used for the purpose of carrying off storm water and for no other purposes.

And the said parties of the first part shall have the right to enter and use said sewer for said purpose,without the payment of an entrance fee to said City.

(c) That the said party of the second part shall and will from time to time and at all times hereafter pay any and all loss,cost or damage which the said parties of the first part shall suffer or sustain because of the cracking,breaking or leaking of said portion of said sewer which the above mentioned party of the second part shall maintain upon the said premises,or for entering upon the said premises for the purpose of maintaining and repairing or opening the said portion of said sewer.

(d) That in case the sewer which the said party of the second part intends to place in the alley adjoining the southern line of the said above mentioned lot of ground shall be extended westwardly from the point of intersection of said sewer with the northern line of said right of way of the Maryland and Pennsylvania Railroad Companyin such way or manner,or by such course that it shall reach the said stream known as the poor House Run other than through or upon the said lot of ground of the said parties of the first part,then and in that event this grant shall cease,and the right of the said party of the second part to maintain the portion of the sewer on the said land of the said parties of the first part,as hereinbefore granted,shall cease and be determined.

In Witness Whereof the said parties of the first part have hereunto set their hands and seals the day and year above written.

Signed,sealed and delivered in the presence of
Ellen M.Wellensiek

Joseph R.Jones (SEAL)
George A.Jones (SEAL)
J.Victor Jones (SEAL)

Emanuel M.Baum
as to Harvey C.Jones

Harvey C.Jones (SEAL)

State of Pennsylvania : SS.
County of York :

Before me,the subscriber,a Notary Public of said State residing in the City of York,in said County,personally appeared the above named Joseph R. Jones,George A.Jones,and J.Victor Jones,and in due form of law acknowledged the foregoing instrument of writing to be their act and deed to the end that the same might be recorded as such according to law.

Witness my hand And notarial seal this 18th day of December A.D.1916.

Ellen M.Wellensiek
Notary Public

Ellen M. Wellensiek Notary Public York,Penna.

My commission expires Jan'y 25,1919.

State of Maryland SS,
City of Baltimore

Before me,the subscriber,a Notary Public of said State,residing in the City of Baltimore,personally appeared the above named Harvey C.Jones,and in due form of law acknowledged the foregoing Instrument to be his act and deed to the end that the same might be recorded as such according to law.

Witness my hand and Notarial seal this 15th day of December A.D.1916.

Emanuel M.Baum,Notary Public

Emanuel M. Baum Notary Public Baltimore Md.

My commission expires May 1,1918. Recorded May 22d,A.D.1917.

Edward B.Newman,Recorder

#10673. Roy W.Straley et ux: to J.Milton Swartz

This Deed,Made the fith day of August in the year Nineteen hundred and eighteen.

Between Roy W.Straley and Lottie M.Straley,his wife,of Hanover Borough, York County,Pennsylvania,of the first part,grantors,and J.Milton Swartz of Borough,County and State aforesaid,of the second part-grantee

Witnesseth,that in consideration of Eleven Hundred ($1100.00) Dollars in hand paid,the receipt whereof is hereby acknowledged,the said grantors do hereby grant and convey to the said grantee,

All that the following described unimproved lot of ground situate,lying and being on the South side of Fourth Street in Hanover Borough,York County,Pennsylvania and known on the general plan of a series of lots laid out by David D.Krug and Paul Krug,Executors of the Will of John Krug, deceased,as Lot No.24;said plan or plot is recorded in the office for the recording of Deeds etc., in and for said County of York,Pennsylvania,in Record Book "17 D" at page 701,bounded and limited as follows to wit:

BEGINNING for a corner on the South side of Fourth Street at Lot No.25;thence along said lot South 16 degrees 45 minutes East one hundred forty-six feet,nine inches to a corner at a twenty feet wide alley;thence along the North side of said alley South 74 degrees 45 minutesWest forty feet to a corner at Lot No.23 belonging to party of the first part;thence North along said last mentioned Lot 16 degrees 46 minutes West to a corner at aforesaid Fourth Street;thence along said Fourth Street North 73 degrees 15 minutes East forty feet to the place of Beginning.

It being one of the same lots of ground which George W.Krug and Serena Krug,his wife,by their deed dated the thirty-first day of December 1915 and recorded in the office for the recording of Deeds in and for York County,in Deed Book " 19 Y" at page 517,sold and conveyed unto Roy W.Straley, grantor herein.

As by reference to said in part recited Indenture,it will more fully and at large appear.

And the said grantors,do hereby covenant and agree to and with the said grantee,that they, the grantors,their heirs,executors and administrators,shall and will generally warrant and forever defend the herein above described premises,with the hereditaments and appurtenances,unto the said grantee,his heirs and assigns,against the said grantors and against every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

In Witness Whereof,said grantors have hereunto set their hands and seals the day and year first above written.

D.Guy Hollinger

$1.50 Revenue 8/5/18 R.W.S. J.M.S.

Roy W.Straley (SEAL)
Lottie M.Straley (SEAL)

State of Pennsylvania: SS:
County of York :

D.Guy Hollinger Notary Public Hanover,Pa.

On this 5th day of August A.D.1918 before me,a Notary Public,in and for York County,Pennsylvania,came the above named Roy W.Straley and Lottie M.Straley, his wife,and acknowledged the foregoing Deed to be their act and deed,and desired the same to be recorded as such.

Witness my hand and Notarial seal the day and year aforesaid.

D.Guy Hollinger
Notary Public

My Commission expires March 9.1919.

Recorded August 6th,A.D.1918.

Edward B.Newman,Recorder

10675. Billmeyer & Small Co.: to York City

Be it known that the Billmeyer & Small Company,for and in consideration of the sum of One Dollar ($1.00) paid by the City of York,does hereby grant unto said City of York,its successors and assigns,the rights and privilege of entering upon,constructing and maintaining a storm water sewer upon and under a strip of land not to exceed twenty feet in width,situate in the Twelfth Ward of the City of York,York County, Pennsylvania,bounded and described as follows:The center line of said strip beginning on the South line of East Philadelphia Street at a point 540.22 feet westwardly from the southwest corner of Philadelphia and Vine Streets and extending thence Southwardly at right angles with said line of East Philadelphia Street 155.13 feet to a point,thence extending Eastwardly at right angles with said above described line and parallel with said line of Philadelphia Street a distance of 404 feet,more or less,to the Eastern boundary line of said Billmeyer & Small Company's property,said point of ending being in the center of Glen Alley as the same is now opened from Vine Street Westwardly to said Billmeyer & Small Company's property. The side lines of said twenty foot strip are located ten feet on each side of and parallel with said above described two center lines. The right is also granted by said Company to said City of York,its engineers,employees,agents and workmen to enter upon said strip of ground over and under which said sewers may be constructed for the purpose of constructing,repairing or re-constructing the same.

Said Billmeyer & Small Company hereby constitutes and appoint George S.Billmeyer to be its attorney for it and in its name and as and for its corporate act and deed to acknowledge this instrument before any person having authority by the laws of the Commonwealth of Pennsylvania to take such acknowledgements to the extent that the same may be duly recorded.

In witness Whereof,said Billmeyer &Small Company has caused this instrument to be signed by George S.Billmeyer its president,and its corporate seal to be hereto affixed with the attestation of W.A.Cook its Asst Secretary,this 26th day of June,A.D.1918.

George S.Billmeyer,President

W.A.Cook
Asst Secretary

Billmeyer & Small Co. York,Pa.

State of Pennsylvania' SS,
County of York :

I hereby certify that on this 26th day of June A.D.1913 before me,a Notary Public of said State,residing in said County,personally appeared George S.Billmeyer,the attorney named in the foregoing instrument and by virtue and in pursuance of the authority therein conferred upon him acknowledged said instrument to be the act and deed of the said Billmeyer & Small Company.

Ellen M. Wellensiek Notary PUblic York,Penna.

Witness my hand and notarial seal the day and year aforesaid.

Ellen M.Wellensiek
Notary Public

My Commission expires Jan'y 25,1915.

Recorded August 9th,A.D.1918.
Edward B.Newman,Recorder

#10678,Bertha B.Wirt : This Deed,Made the Eighth day of August in the year Nineteen hundred and
to : eighteen.
H.D.Sheppard et al: Between Bertha B.Wirt(widow),of the Borough of Hanover,York County,State : of Pennsylvania,grantor,and H.D.Sheppard and C.N.Myers,as tenants in common : of the said Borough of Hanover,County and State aforesaid,grantees.

($20.00 Revenue 8/9/18 B.B.W.)

Witnesseth,that in consideration of Twenty Thousand ($20,000.00) Dollars,in hand paid,the receipt whereof is hereby acknowledged,the said grantor doth hereby grant and convey to the said grantees,

All that the following described tract of land,situate in the Borough of Hanover,York County,State of Pennsylvania,bounded and limited as follows:-

A lot of ground situate on Frederick Street (No.8)in the Borough of Hanover,York County, State of Pennsylvania,bounded on the east and north by public alleys,on the south by said Frederick Street,and on the west by property lately purchased by L.O.Hafer,containing in width on said street fifty-seven (57) feet six (6) inches and extending in depth of equal width two hundred and thirty (230) feet.

It being the same tract of land which Charles B.Wirt,et/al.,by their deed dated March 19, 1917,and recorded in the Recorder's Office of York County in Deed Book "N"Vol. 20,page 153,sold and conveyed unto Bertha B.wirt,party of the first part hereto,her heirs and assigns.

And the said grantor doth hereby covenant and agree to and with the said grantors,that she the grantor,her heirs,executors and administrators,shall and will generally warrant and forever defend the herein above described premises,with the hereditaments and appurtenances,unto the said grantees,their heirs and assigns,against the said grantor and against every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

In Witness Whereof,said grantor hath hereunto set her hand and seal the day and year first above written.

Sealed and delivered in the presence of
Meta Stock
Guy W.Bange

Bertha B.Wirt (SEAL)

State of Pennsylvania: SS,
County of York :

On this Eighth day of August A.D.1918 before me,a Notary Public in and for said County,personally came the above named Bertha B.Wirt and acknowledged the foregoing Deed to be her act and deed,and desired the same to be recorded as such.

Meta Stock Notary Public Hanover York Co., Pa.

Witness my hand and Notarial seal the day and year aforesaid.

Meta Stock
Notary Public

My Commission expires February 19,1921.

Recorded August 9th,A.D.1918.
Edward B.Newman,Recorder

#10679. Hanover Trust Co.: Know all Men by these Presents,that the Hanover Trust Company of the
to : Borough of Hanover,York County,Pennsylvania,for and in consideration of
Bertha B.Wirt : the sum of Forty ($40.00) Dollars lawful money of the United States of : America,unto it in hand paid by Bertha B.Wirt at and before the ensealing : and delivery hereof,the receipt whereof is hereby acknowledged,has granted,bargained,sold,released and extinguished/unto the said Bertha B.Wirt,

extinguish. And by these presents doth grant,bargain,sell and

her heirs and assigns-All that certain yearly ground rent amounting to One Dollar and 78/100 ($1.78) charged on Lot No.8,situate on Frederick Street in the said Borough of Hanover,and which said lot is now owned by the said Bertha B.Wirt. It being the same ground rent which David P.Forney,executor of the last will and testament of Maria S.Shultz,late of the Borough of Gettysburg,Adams County, Pennsylvania,deceased,by his Indenture dated the 12th day of September 1914 and recorded in the Recorder's Office of said York County in Record Book "19 N",page 184,sold and conveyed unto the said Hanover Trust Company,its successors and assigns.

Together with the rights,remedies,incidents,appurtenances,reversions and remainders thereof and all the estate,rights,title,interest,property,claim and demand of is,the said Hanover Trust Company,at law and in equity,as well of,in and to the said yearly ground rent,as of,in,to and out of the said lot or piece of ground out of which the same is issuing and payable.

hereditaments and premises herein above described and granted or mentioned and intended so to be,with the appurtenances,unto the said party of the second part,her heirs,and assigns,against him the said party of the first part,and his heirs,and against all and every other person or persons whomsoever lawfully claiming,or to claim the same or any part thereof,shall and will warrant and forever defend.

In Witness Whereof,the said party of the first part has to these presents set his hand and seal. Dated the day and year first above written.

Sealed and delivered in the presence of
Noah C.May

John Keller (SEAL)

Received the day of the date of the above Indenture of the above named Mamie Louisa Brown,the sum of Two hundred and fifty dollars ,lawful money of the United States,being the consideration money above mentioned in full.

Witness :
Noah C.May

John Keller

State of Pennsylvania:
County of York : ss. On this twenty-first day of October A.D.1919 before me,the subscriber, an Alderman in and for said County personally came the above named John Keller (single man) who in due form of law acknowledged the foregoing Indenture to be his act and deed,and desired that the same might be recorded as such.

Noah C. May Alderman Fifth Ward York,York Co.,Pa.

Witness my hand and official seal tha day and year aforesaid.

Noah C.May (SEAL)
Alderman

My Commission expires first Mond- Jan.1920.

Recorded October 21st A.D.1919.
Edward B.Newman,Recorder

#16899. West End Sewer Co.: to York City :

$6.00 W.E.S.Co 10/21/19

Whereas,by ordinance of the City of York,entitled,"An ordinance authorizing the West End Sewer Company to construct a private sewer,with a right of the City to purchase the same ;and prescribing the cost of entering the same," approved the 26th day of November,1897,the said West End Sewer Company was authorized and permitted to lay,construct,and maintain a private sewer to begin at the east side of Hartley street to connect with the western terminus of a sewer already constructed and thence along Hartley Street to Park Street; thence along Park Street to Manchester Street; thence along Manchester Street to Lincoln Street;thence along Lincoln Street to West Street; thence along West Street to Madison Avenue ,and from West Street to Bruce Alley to Belvidere Avenue; and thence along Belvidere Avenue to Linden Avenue; along Fern Alley from West street to Carlisle Avenue,and along Madison Avenue from West street to Carlisle Avenue; and subsequently laid and constructed,and has since maintained said private sewer.

And whereas,by ordinance of the City of York,entitled"An ordinance authorizing the acquisition of the system of storm sewers of the West End Sewer Company,and providing for the payment of the cost thereof"passed on the 14th day of October,1919,the City of York acquired and purchased the system of sewers,pipes,inlets,and all appurtenances of any kind whatsoever of the said West End Sewer Company for the sum of six thousand dollars ($6000.00) to be paid as in said ordinance more fully set forth.

And Whereas,at a meeting of the stockholders of said West End Sewer Company,duly held for the purpose on the 20th day of October,1919,the said stockholders unanimously consented and agreed to said proposed sale,and requested,authorized,and empowered the Board of Directors thereof to make,execute and deliver all necessary deeds of other instruments of writing necessary or advisable for the proper conveyance of said system to the City of York,in pursuance whereof,the said Board of Directors at a special meeting held for the purpose on said 20th day of October,1919,unanimously authorized the proper officers of said Company for and in the name of the Company to make,execute and deliver all necessary deeds or other instruments of writing of necessary or advisable for the proper conveyance of said system to said City of York.

Now Therefore Know all Men by these Presents the West End Sewer Company,a corporation organized under the laws of the State of Pennsylvania,having its principal office in the City of York,in the County of York,in said State,for and in consideration of the sum of six thousand dollars ($6000); one thousand dollars ($1000) whereof has been paid in cash upon the execution of this deed,the receipt whereof is hereby acknowledged,and the remaining five thousand dollars ($5000) whereof is to be paid by said City in annual payments of one thousand dollars ($1000) each out of the current revenues,all as in said above recited ordinance of October 14,1919,more fully set forth,hereby grants and conveyed to the said City of York,its successors and assigns,all and singular the said system of sewers,pipes, inlets,and all appurtenances of any kind whatsoever,of the said West End Sewer Company.

In Witness Whereof,the said West End Sewer Company has caused its corporate seal to be hereto affixed,duly attested,this twenty first day of October,A.D.1919.

West End Sewer Company Incorporated 1899 York,Pa.

West End Sewer Company.
By Ellis S.Lewis
President

Attest:
C.E.Moore
Secretary

State of Pennsylvania, County of York ; SS. Be it remembered that on the twenty-first day of October, A.D. one thousand nine hundred and nineteen (1919) before me, the subscriber, a Notary Public of said State, residing in the City of York, in said County, personally came Ellis S. Lewis, President of the above named West End Sewer Company, who, having been duly affirmed according to law, declares and says that he was personally present at the execution of the above Indenture and saw the common and corporate seal of the said corporation of the West End Sewer Company duly affixed thereto, and that the seal so affixed is the common and corporate seal of the said West End Sewer Company, and that the said Indenture was duly signed, sealed and delivered as and for the act and deed of the said corporation to the intent and purposes therein mentioned, and that the name of this deponent subscribed thereto as President of the said corporation in attestation of the due execution and delivery of the said Indenture is of this deponent's own proper handwriting.

Ellen M. Wellensiek Notary Public York, Penna.

Affirmed and subscribed before me the day and year aforesaid.

Ellis S. Lewis

Ellen M. Wellensiek Notary Public
My Commission expires Jan'y 25, 1923.

Recorded October 21st A.D. 1919.
Edward B. Newman, Recorder

#16900. Mary E. Reheard Est. to John U. Reheard Admr ; KNOW ALL MEN BY THESE PRESENTS, that we Mary L. Counselman of Mountville, Lancaster County, Penna., Annie C. Weiser of Red Lion, Penna., John U. Reheard of High Rock, Penna., Robert B. Reheard of Harrisburg, Penna., Jennie C. Frey of Wrightsville, Penna., Maggie E. Workinger of High Rock, Penna., and Joseph W. Reheard of Florin, Lancaster County, Penna., all children of lawful age of Mary E. Reheard, late of Chanceford Township, York County, Pennsylvania, deceased, and the York Trust Company, guardian of Floretta J. Workinger minor daughter of Laura G. Workinger, deceased daughter of the late Mary E. Reheard, have each of us this day had and received of and from John U. Reheard, Administrator of the estate of the said Mary E. Reheard, deceased, the sum of Ninety-four and Nine one-hundredths ($94.09) Dollars; And the York Trust Company, guardian of Carl Workinger and Herbert A. Workinger, minor children of Laura G. Workinger, a deceased daughter of the said Mary E. Reheard, deceased, have received for each of said minors the sum of Forty-seven and five one-hundredths ($47.05) Dollars.

The said sums paid to us and each of us as aforesaid being in full of our and each of our shares out of the estate of the said Mary E. Reheard, deceased.

In Consideration Whereof, we do by these presents remise, release and forever discharge the said John U. Reheard, Administrator, his heirs, administrators and assigns of and from further payment of the said sums of money paid to us and each of us as aforesaid and of and from all suits, accounts, reckonings, claims and demands whatsoever therefor.

Witness our hands and seals this 21st day of October, A.D. 1919.

Witness:
Charlotte E. Lehn

J. W. Reheard (SEAL)
Robert H. Reheard (SEAL)
Jennie C. Frey (SEAL)
Maggie E. Workinger (SEAL)
John U. Reheard (SEAL)
Annie C. Weiser (SEAL)
Mary L. Conselman (SEAL)

Witness:
Charlotte E. Lehn

York Trust Company Incorporated June 11, 1890 York, Pa.

Attest:
C. H. Moore, Secy

York Trust Company
By Ellis S. Lawis Presd (SEAL)
Guardian of Floretta J. Workinger, Carl Workinger and Herbert A. Workinger.

State of Pennsylvania ; SS. Personally appeared before me, a Notary Public, in and for said County and State, Mary L. Counselman, Annie C. Weiser, John U. Reheard, Robert B. Reheard, Jennie C. Frey, Maggie E. Workinger and Joseph W. Reheard, above named, who in due form of law acknowledged the foregoing release to be their act and deed to the end that the same might be recorded as such according to law.

Charlotte E. Lehn Notary Public York City York Co., Pa.

Witness my hand and Notarial seal this 21st day of October, A.D. 1919.

Commission expires April 1-1923.

Charlotte E. Lehn
Notary Public

State of Pennsylvania: County of York ; SS. Be it remembered that on the 21st day of October 190- before me, a Notary Public of said State residing in the City of York, in said County, personally appeared Ellis S. Lewis President of York Trust Company party to the annexed instrument, who being duly sworn deposeth and saith, that he was personally present at the execution of the said instrument and saw the common seal of the said York Trust Company duly affixed thereto; that the seal so affixed is the common and corporate seal of the said York Trust Company; that the said instrument was duly signed, sealed and delivered by, and as and for the act and deed of the said York Trust Company, for the uses and purposes therein mentioned; and that the name of this deponent subscribed to the said instrument as President of the said York Trust Company, in attestation of the due execution and delivery of the said said instrument, is in this deponent's own proper handwriting.

sworn and subscribed before me the day and year aforesaid.

Ellis S. Lewis

Witness my hand and seal.
Charlotte E. Lehn
Notary Public
Commission expires April 1-1923.

Charlotte E Lehn Notary Public York City York Co., Pa.

Recorded October 22d A.D. 1919.
Edward B. Newman, Recorder

his act and deed, and desire the same might be recorded as such for the purpose therein mentioned

Witness my hand and notarial seal this 5 day of June Anno Domini one thousand nine hundred and twenty six

Ellen M. Wellensiek (seal)
Notary Public
My commission expires
May 25, 1927

Ellen M. Wellensiek
Notary Public
York
Pa.

Recorded July 23, 1926
Emory E. Saylor, Recorder.

5918

York Trust Company Admr. to John E. Baker ux.

This indenture, made this 19th day of July A. D. 1926, between York Trust company, Administrator de bonus non cum testamento annexo of the estate of Jacob Bare, deceased, party of the first part; John E. Baker and Mary S. Baker his wife, of the City of York, York County, Pennsylvania, parties of the second part, and City of York a municipal corporation of the Commonwealth of Pennsylvania, party of the third part

Witnesseth:

Whereas the city of York has heretofore constructed and erected a Sanitary Outfall Sewer with manholes and appurtenances thereto belonging beginning at a point on the Eastern building line of North Water Street in the thirteenth ward of the City of York, Pa. and extending thence through lands of John E. Baker and the lands of the estate of Jacob Bare, deceased, to a point in Cottage Hill Road, the course and location of which are hereinafter more particularly described and located, and

Whereas the party of the first part has agreed to accept the sum of seven hundred fifty dollars ($750.00) in full consideration for the grant of the right of way and easement to the extent that the same extends through the land of the said Jacob Bare deceased, and the said party of the second part has heretofore agreed to accept the sum of two hundred fifty dollars ($250.00) in full consideration for the grant of the right of way and easement, to the extent that the same extends through the land of the parties of the second part; which consideration the party of the third part has agreed to pay said parties of the first and second part respectively, therefore

Know all men by these presents that York Trust Company, administrator de bonus non cum testamento annexo of the estate of Jacob Bare, deceased, pursuant to direction and power contained in the last will and testament of said decedent, and for and in consideration of the premises, and in consideration of the sum of sevenhundred fifty dollars ($750.00) lawful money of the United States of America unto it well and truly paid by the said City of York, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged; and John E. Baker and Mary S. B. Baker his wife, for and in consideration of thepremises, and in consideration of the sum of two hundred fifty dollars ($250.00) lawful money of the United States of America unto them well and truly paid by the said city of York, at and beforethe sealing and delivery of these presents, the receipt whereof in hereby acknowledged, have granted, bargained, and sold, and by these presents do, grant, bargain, and sell, unto the said city of York, its successors and assigns, all their several right title and interest in that certain Sanitary Outfall Sewer, the manholes constructed in connection therewith, and the appurtenances thereto belonging, extending over, under, and across the tracts of land of said parties respectively, situated in the 13th ward of the city of York, York County, Pennsylvania, beginning at a point on the Eastern building line of North Water Street, said point being located one hundred forty six (146) feet southwardly from the Southeast corner of North Water Street and Front Street, thence at right angles with North Water Street in an Eastwardly direction nine hundred twenty(920) feet to a point in Cottage Hill Road; together with the right and privilege to repair, maintain, use, and enjoy freely and uninterruptedly said line of Sanitary Outfall Sewer, in, over, under, and across the tracts of land of parties of the first and second part respectively, upon and subject nevertheless, to the legal duty imposed upon the City of York, its successors and assigns, to maintain, repair, and keep clean said sewer, at the expense of said City of York, its successors and assigns, to the end and purpose that the said party of the first part, its successors and assigns, and John E. Baker and Mary S. B. Baker his wife, parties of the second part, their heirs and assigns, shall be relieved from the duty of maintaining, repairing and keeping clean said sewer; and party of the first part and parties of the second part have hereby granted, bargained, and sold, and by these presents do grant, bargain, and sell unto the said City ofYork, its successors and assigns the free and uninterrupted use, liberty, and privilege of free passage in, along, and under a certain strip or parcelof land ten (10) feet in width, and extending from a point on North Water Street, nine hundred twenty (920) feet to a point in Cottage Hill Road, as herein before more fully described, the North and South lines of said rightof way being distant five (5) feet from and parallel to said described center line, to the extent that said strip or parcel extends over and upon the land of party of the first part and parties ofthe second part respectively, for the purpose of constructing, cleansing, and repairing said Sanitary Outfall Sewer.

To have and to hold all and singular, the privileges aforesaid, to said City of York, its successors and assigns, to and for the only proper use and benefit, of it, the said City of York, its successors and assigns forever

The York Trust Company trustee aforesaid, does hereby constitute and appoint Ellis S. Lewis tobe its attorney for it and in its name and as and for its corporate act and deed to acknowledge this indenture before any person having authority by the laws of the Commonwealth of Pennsylvania, to take such acknowledgment to the intent that the same may be duly recorded

In witness whereof the said York Trust Company has caused this indenture to be signed in its corporate name by its President and has caused to be affixed hereunto the common and corporate seal of the said corporation; attested by its secretary; and the said parties of the second part have hereunto set their hands and seals on the day and year first above written

York
Trust
Company
York
Pa.

York Trust Company
By. Ellis S. Lewis
President
Attest: Carl S. Wittmer
Secretary

In presence of
K. R. Wipple
Salome Baker Stauffer

John E. Baker(seal)
Mary S. B. Baker (seal)

State of Pennsylvania :
County of York :SS

Before me, the subscriber, a Notary Public, in and for said County and State, personally appeared Ellis S. Lewis, the attorney named in the foregoing deed, and by virtue and in pursuance of the authority therein conferred upon him, acknowledged the deed to be the act of the said York Trust Company, trustee aforesaid

Witness my hand and notarial seal this 22d day of July 1926

Lydia
Garman
Notary Publ
York
Pa.

Lydia Garman
Notary Public
My commission expires
March 7th 1929

State of Pennsylvania :
County of York :SS

Before me, the subscriber a Notary Public, in and for said County and State personally appeared John E. Baker and Mary S. B. Baker his wife, who acknowledged this Indenture to be their act and deed and desire that the same be recorded as such according to law

Witness my hand and notarial seal this 19th day of July 1926

N. R.
Coueler
Notary Public
York
Pa.

N. R.Cueler
NotaryPublic
Mycommission expires
January 20, 1930.

Recorded July 23, 1926
Emory E. Saylor, Recorder

5919

George G. Jones set. to Wina B. Jones :

Know all men by these presents, that I, Wina B.Jones, of the city of York, Pennsylvania, widow of George G. Jones, who died May 13, 1926, leaving a will, dated December 29, 1924, duly admitted to probate by the Register of Wills of York County, Pennsylvania, and recorded in Will Book 3 K, page 422, do hereby elect to take under the will of my late husband, and hereby accept the estates and interests therein devised and bequeathed to me, and forever relinquish my right as widow to take against the said will

In witness whereof, I have hereunto set my hand and seal the 22nd day of July 1926

In the presence of
Ruth E. Wolf

Wina B. Jones (seal)

State of Pennsylvania :
County of York :SS

On the 22nd day of July 1926,before me, a Notary Public, in and for said County and State, personally appeared the above named Wina B. Jones, and acknowledged the above election to take under the will of George G. Jones, deceased, to be her act and deed and desired the same to be recorded as such according to law

Witness my hand and notarial seal the day and year aforesaid

Ruth
E. Wolf
Notary Public
York
Pa.

Ruth E. Wolf
Notary Public
My commission expires
January 22, 1930

Recorded July 23, 1926
Emory E. Saylor, Recorder.

6868

Julia E. Martin : In the District Court of the United States for the
Bankrupt : Division, Middle District of Pennsylvania.
to :
Charles A. May : In the matter of :
Trustee : Julia E. Martin : No. 4690 in Bankruptcy
Bankrupt

At Scranton, Pennsylvania, in said district on the eleventh day of April A. D. 1924, before the Honorable Charles B. Witmer Judge of said Court in Bankruptcy, the petition of Julia E. Martin of the City of York, County of York and State of Pennsylvania, that she be adjudged a bankrupt, within the true intent and meaning of the Acts of Congress relating to bankruptcy, having been heard and duly considered, the said Julia E. Martin, is hereby declared and adjudged a bankrupt accordingly.

Witness the Honorable Charles B. Witmer, Judge of the said Court, and the seal thereof, at Scranton, Pennsylvania, in said district, on the eleventh day of April A. D. 1924

Seal of the U. S. District Court W. D. Penna.

G. C. Scheuer
Clerk
By. O. W. Hofford
Deputy Clerk

April 26, 1924, 10 A. M. Firstmeeting of creditors held and Charles A. May of York Penna., elected trustee by creditors, and appointment approved by Referee. Bond of Trustee fixed in the sum of $4000.00 Bond of Charles A. May, of York, Penna., Trustee, with Michael S. Miles and John A. Hoober As Sureties in the sum of $4000.00 filed and approved by referee.

Certified from the record this 3rd day of June, 1926

W. H. Hurtz
Referee in Bankruptcy.

Filed and entered .....

Recorded September 23, 1926
Emory E. Saylor, Recorder.

6874

William W. Boger al. : This Indenture, made this 16th day of August A. D.
to : 1926, by and between William W. Boger and Daisy M. Boger, his wife,
City of York : James A. Stahle and Emma W. Stahle, his wife, Ervin A. Perrence and Estelle May Perrence, his wife, Jacob W. Kingeman and Mary Kingeman his wife, Ralph K. Trimmer and Lillian Marie Trimmer, husband and wife, Emma J. Dampwolf and Charles W. Dampwolf, Her husband, G. W. Yost and Fannie E. Yost, his wife, and Charles E. Smith and Emma Smith his wife, all of the City of York, Pennsylvania, parties of the first part and City of York, a Municipal Corporation of the Commonwealth of Pennsylvania, party of the second part, Witnesseth:

Whereas parties of the first part are seized and possessed of all the land abutting upon a certain private alley, fifteen feet in width, situate in the thirteenth ward of the city of York beginning at a point on the Northern line of Jefferson Street, (the western line of which alley is one hundred thirty five feet east of the eastern line of north Newberry Street) and extending thence northwardly to lands now or formerly of Arthur B. Farquhar estate, and

Whereas it is the desire of parties of the first part to grant to the City of York the right to erect, construct and maintain a Sanitary Sewer main and Sanitary Sewer Laterals together with the necessary manholes and appurtenances, in and under said alley, therefore

Know all men by these presents, that parties of the first part for and in consideration of the premises and the right and advantage to connect with said Sanitary Sewer main and laterals, respectively, as well for and in consideration of the sum of one dollar, lawful money of the United States to them in hand paid by the city of York, the receipt whereof is hereby acknowledged have granted, bargained, and sold and by these presents do grant, bargain, and sell unto the said city of York, its successors and assigns, the free and uninterrupted use, liberty and privilege to erect, construct, maintain, use, and enjoy, repair and cleanse a Sanitary Sewer Main and Sanitary Sewer Laterals, together with the necessary manholes and appurtenances, in, along, under and across the said alley herein before more fully described, together with the free and uninterrupted right and privilege of ingress, egress and regress, in, to or over, and under the said alley for the purpose of constructing, cleansing and repairing said main and laterals, manholes and appurtenances under and subject, nevertheless, to the legal duty imposed upon the City of York, its successors and assigns, to maintain, repair and keep clean the said main and laterals, manholes and appurtenances at the sole cost and expense of said city of York, its successors and assigns, to the end and purpose that the said parties of the first part, their heirs and assigns, shall be relieved from the duty of maintaining, repairing and keeping clean the same.

To have and to hold all and singular the privileges aforesaid to said city of York, its successors and assigns, to and for the only proper use and behoof of it, the said City of York, its successors and assigns forever

Inwitness whereof the said parties of the first part have hereunto set their hands and seals on the day and year first above written.

Sealed and delivered in the presence of :

	William W. Boger (seal)
Veronica A. Stinger	William W. Boger (seal)
Veronica A. Stinger	Daisy N. Boger (seal)
Veronica A. Stinger	James A. Stahle (seal)
Veronica A. Stinger	Emma W. Stahle (seal)
Veronica A. Stinger	Ervin A. Ferrence (seal)
Veronica A. Stinger	Estella May Ferrence (seal)
Veronica A. Stinger	Jacob W. Kingsman (seal)
Ervin A. Ferrence	Mrs. Mary Kingsman (seal)
Veronica A. Stinger	Ralph K. Trimmer (seal)
Veronica A. Stinger	Lillian Marie Trimmer (seal)
Ralph K. Trimmer	Emma J. Dempwolf (seal)
Ralph K. Trimmer	Charles H. Dempwolf (seal)
Veronica A. Stinger	O. W. Test (seal)
Veronica A. Stinger	Fannie E. Test (seal)
Veronica A. Stinger	Charles E. Smith (seal)
Veronica A. Stinger	Emma Smith (seal)
Veronica A. Stinger	Jacob W. Kingsman (seal)
Veronica A. Stinger	George D. Yoke (seal)

State of Pennsylvania :
County of York :SS

On this 16th day of August A. D. 1926, before me, the subscriber, a Notary Public, in and for said County and State personally came the above named William W. Boger and Daisy N. Boger, his wife, James A. Stahle and Emma W. Stahle, his wife, Ervin A. Ferrence and Estella May Ferrence his wife, Jacob W. Kingsman and Mary Kingsman his wife, Ralph K. Trimmer and Lillian Marie Trimmer, husband and wife, Emma J. Dempwolf and Charles H. Dempwolf, her husband, O. W. Test and Fannie E. Test, his wife and Charles E. Smith and Emma Smith his wife, who in due form of law acknowledged the foregoing indenture to be their act and deed and desired that the same might be recorded as such

Witness my hand and Notarial seal the day and year aforesaid

Veronica A. Stinger (seal)

Veronica A. Stinger
Notary Public
York City
Pa.

My commission expires
March 6, 1927
Recorded September 23, 1926
Emory E. Naylor, Recorder

6875

York Trust Company :
to
City of York :
:

Whereas, O. W. Test and Fannie E. Test, his wife, by Indenture of mortgage dated April 17, 1926, recorded in the Recorders Office at York Pa., in Mortgage Book 6 T, page 292, did grant in Mortgage to York Trust Company, Trustee to secure the sum of $800.00 with interest, a certain lot of ground abutting in the private alley herein more fully described, and

Whereas, George N. Trimmer and Laura B., his wife, Ralph K. Trimmer, and Lillian Marie Trimmer, by Indenture of mortgage, dated October 7, 1925, recorded in the Recorders Office at York, Pa., in Mortgage Book 6 P, page 428, did grant in mortgage to York Trust Company, Trustee, to secure the sum of $4500.00 with interest, a certain lot of ground (tract number two in said mortgage) abutting on the private alley herein more fully described, and

Whereas, the said mortgagors are desirous of having the easement, in the within indenture more fully described, relieved from the lien of said mortgages, therefore

Know all men by these presents, that the said York Trust Company, Trustee for and in consideration of the premises and of the sum of one dollar ($1.00) to it in hand paid by the said mortgagors, the receipt whereof is hereby acknowledged, has covenanted, promised and agreed, and hereby does for itself its successors and assigns, covenant, promise and agree with the said mortgagors, their heirs and assigns, that no execution or other final process or proceeding in law, shall be sued, levied taken or executed by it, its successors or assigns, by virtue of the said mortgages, or either of them, on, for or against the easement granted by the said mortgagors to the City of York, by the within indenture and by these presents does remise, release, and forever quit claim unto the said City of York its successors and assigns, the aforesaid easement; provided however, that nothing herein contained shall be construed so as to impair the operation of the said mortgages against the said mortgagors and their estates, other than the easement herein expressly mentioned and described

The York Trust Company, Trustee, does hereby constitute and appoint Ellis S. Lewis to be its attorney for it and in its name and as and for its corporate act and deed to acknowledge this release before any person having authority by the laws of the Commonwealth of Pennsylvania, to take such acknowledgment, to the intent that the same may be recorded

In witness whereof the said York Trust Company, has caused this indenture to be signed in its corporate name by its President and has caused to be affixed hereunto the common and corporate seal of the said corporation attested by its secretary this 20th day of August A. D. 1926

York Trust Company
By. Ellis S. Lewis
President

Attest:
Harry P. Kiesinger
Asst. Secretary.

York
Trust
Company
York
Pa.

hereto, and also all manner of action, writ or writs of dower, or other actions and right to make distress whatsoever, so that neither I, or either of us, nor any other person or persons whatsoever for us or in our name, right or stead any manner of dower or writs of dower or actions, right or title of dower or other interest, claim or demand whatsoever of or in the said tract of land and premises mentioned or of or in any part or parcel thereof at any time hereafter shall or may have, claim or prosecute against the said Catharine E.Thompson, her heirs and assigns.

In Witness Whereof, we have hereunto set our hands and seals this 29 day of May 1928.

Signed, sealed and delivered in the presence of:

R.E.Crimmins
A.Milnes

Frank P.Hartman (Seal)
Emory S.Taylor (Seal)
Arthur Taylor (Seal)
Hazel Taylor (Seal)
Andrew W.Taylor (Seal)
Guardian of Harry Taylor Minor

State of Colorado, :
County of El Paso : SS:

On this 28th day of April 1928, before me, a Notary Public in and for said County and state, personally came the above named Frank P.Hartman who in due form of law acknowledged the foregoing Indenture and Release to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notorial seal the day and year aforesaid.

Albert L.Pieper
Notary Public
El Paso Co.
Col.

Albert L.Pieper
Notary Public
My Commission expires December 3rd 1927

State of Michigan : ss:
County of Manistee :

On this 29 day of May 1928, before me, a Notary public in and for said County and state, personally came the above named Emory Taylor, Arthur Taylor and Hazel Taylor, who personally stated before me that they are of full age of twenty-one years, and who in due form of law acknowledged the foregoing Indenture of Release to be their and each of their act and deed and desired that the same might be recorded as such.

Witness my hand and notorial seal the day and year aforesaid.

R.E.Crimmins
Notary Public
Manistee Co.
Mich.

R.E.Crimmins, Notary Public
My Commission expires June 18, 1928

State of Michigan : SS:
County of Manistee :

On this 29 day of May 1928, before me, a Notary Public in and for said County and state, personally came Andrew W.Taylor who did declare and state that he is the of Co,estion Mich Guardian of Harry Taylor, who in due form of law acknowledged the foregoing Indenture of Release to be the act and deed of the said guardian and desired that the same might be recorded as such.

Witness my hand and notorial seal the day and year aforesaid.

R.E.Crimmins
Notary Public
Manistee Co
Mich.

R.E.Crimmins,
My Commission expires June 18, 1928
Recorded September 29, 1928
Emory S.Saylor, recorder

8987

Ralph K.Grimmer ol. :
To :
York City :

Whereas, Ralph K.Grimmer and Lillie Marie Grimmer, his wife, are the owners of a certain lot of ground and the improvements thereon erected situate at the Northeast corner of Newberry Street and the first alley North of Jefferson street, in the City of York Pennsylvania; and

Whereas, Ervin A.Ferrance is the owner of a certain lot of ground and the improvements thereon erected located at the South east corner of said Newberry Street and said alley, in said city of York, and

Whereas, the City of York, a Municipal Corporation of the Commonwealth of Pennsylvania, has constructed a Sanitary Sewer main on a certain alley running from Jefferson Street, in said City, in a generally Northerly direction and parallel or substantially parallel to Newberry Street and being the first alley East of said Newberry Street; and

Whereas, provision has been made for the connecting of the said two lots of ground with the said Sanitary Sewer through laterals of "Y's" provided by said City; and

Whereas, the said Ralph K.Grimmer and wife and Ervin A.Ferrance do not desire to connect

their respective properties with said Sanitary Sewer by the use of said laterals of "Y's" provided as aforesaid but desire to build a lateral sewer, hereinafter called Trimmer-Ferrance lateral sewer, on and along said first mentioned alley connecting said lateral with said Sanitary Sewer and to tap the said lateral for the purpose of connecting their respective properties; and

Whereas, the said City of York has refused to permit the said Ralph K.Trimmer and Wife and the said Ervin A.Ferrance to connect their respective properties as aforesaid without their first executing and delivering this agreement.

Now, Therefore, this Agreement Witnesseth:

The said Ralph K.Trimmer and Lillie Varle Trimmer, in consideration of the premises, agree on behalf of themselves, their heirs and assigns,to and with the City of York that in case at any time the said Trimmer-Ferrance lateral sewer is no longer used or usable for the purpose aforesaid they, the said Ralph K.Trimmer and Lillie Varle Trimmer, their heirs or assigns, the then owners of said property, will on request by the City of York connect their said property with said Sanitary Sewer by the use of the lateral or "Y" provided or to be provided by the City of York for said purpose.

The said Ervin A.Ferrance, in consideration of the premises, agrees on behalf of himself, his heirs and assigns, to and with the City of York that in case at any time the said Trimmer-Ferrance lateral sewer is no longer used or usable for the aforesaid purpose, he or they, the said Ervin A. Ferrance, his heirs or assigns, the then owner or owners of said property,will on request by the City of York connect his or their said property with said Sanitary Sewer by use of the lateral or "Y" provided or to be provided by the City of York for said purpose.

In Witness Whereof, the said Ralph K.Trimmer and Lillie Varle Trimmer, his Wife, and the said Ervin A.Ferrance have hereunto set their hands and seals this 28 th day of September A.D.1926.

Witness:

Erma G.Wolf
Frederick E.Gerber

Ralph K.Trimmer (Seal)
Lillie Varle Trimmer (Seal)
Ervin A.Ferrance (Seal)

State of Pennsylvania:
County of York : ss:

Before me, the subscriber, a Notary Public in and for said State and County, personally appeared the above named Ralph K.Trimmer, Lillie Varle Trimmer, his wife, and Ervin A.Ferrance, who in due form of law acknowledged the foregoing Agreement to be their act and deed, to the end that the same might be recorded as such.

Witness my hand and Notarial seal this 28th day of September A.D.1926.

Erma G.Wolf, Notary Public
My Commission expires March 7, 1929
Recorded September 29th 1926
Emery E.Taylor, Recorder

Erma G.Wolf
Notary Public
York,Pa.

1969

Henry W.Shaffner Est. :
To :
Harvey E.Shaffner Admr. :

Whereas, Harvey E.Shaffner, Administrator of the estate of Henry W. Shaffner, late of Conewago Township, York County Pa. deceased, has prepared and is about to file in the Register of Will's office of said County his first and final account of his administration of said estate, which account was prepared in the presence of the persons named hereunto, all of whom examined said account and are satisfied that the same is true and correct,which account shows a net balance for distribution among those entitled to receive the same, of two thousand one hundred fifty-four dollars forty-seven cents, ($2154.47).

And Whereas, the said Henry W.Shaffner left to survive him a Widow, xxxxxxx Kate C. Shaffner, and the following named children, to-wit, Harvey E.Shaffner, Cora L.Rensnard, Mary K.Sipe and Lizzie T.Neiman, who are entitled to receive the balance on said account, one-third thereof going to said widow, and the balance in equal shares between said children.

AND WHEREAS, said parties are willing and do hereby waive the confirmation of said account by the Orphans' Court of said County and are willing to accept the hereinafter named sums in full for their respective distributive shares.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS, that I, Kate C.Shaffner, do hereby acknowledge that I have this day had and received of and from Harvey E.Shaffner, Administrator, the just and full sum of three-three hundred eighty-four dollars eighty-two cents ($3384.82) and We, Cora L.Rensnard, Mary K.Sipe and Lizzie T.Neiman, do hereby acknowledge that we have this day had and received of and from said Harvey E.Shaffner, Administrator, the just and full sum of sixteen hundred ninety-two dollars forty-one cents ($1692.41) all of which several sums we and each of us acknowledge to be in full satisfaction and payment to us and each of us for and on account of our full distributive shares owing and coming to us out of the estate of said Henry W.Shaffner, deceased, and therefore, We and each of us do by these presents do remise, release, quit-claim and forever discharge the said Harvey E.Shaffner of and from all further accounts, payments, claims or demands for or by reason thereof.

In Witness Whereof, We have hereto set our hands and seals this September 29, 1926.

Signed, sealed and delivered in the presence of:

Harvey A.Brous
Kelly C.Hanigan

Kate C.Shaffner (Seal)
Cora L.Rensnard (Seal)
Mary K.Sipe (Seal)
Lizzie T.Neiman (Seal)

628

102 51

10251.
Grier Hersh,
to
City of York,

Whereas, Grier Hersh, of York Pennsylvania, is the owner of a piece or parcel of real estate, located in the City of York, Pennsylvania at the Northeast corner of South George Street, and Rathton Road, which tract of land extends Eastwardly to South Duke Street.

Know All Men by these Presents, that the undersigned the said Grier Hersh, and Helen M. Hersh, his wife, in consideration of the Sum of One Dollar, paid to the undersigned, the receipt whereof is hereby acknowledged, do by these presents, grant, bargain sell, release, convey and confirm unto the City of York its successors and assigns, the right and privilege to Construct, maintain, operate and use in, on and across the said piece or parcel of land on a twenty feet right of way hereinafter described a storm water sewer, including manholes and other appurtenances, and sanitary sewer including manholes and other appurtenances, which sewers shall be located on the twenty feet right of way strip shown on blue print attached hereto, marked Exhibit A. and made a part hereof. The center line of said right of way strip as shown on said Exhibit A. starts at the Western and thereof as is dicated on said drawing and extends thence as shown on said drawing North fifty five (55) degrees thirty seven (37) minutes East, a distance of two hundred eighty three and sixty four one hundredths (283.64) feet to a point, and thence extends North fifty one (51) degrees Nine teen (19) minutes East, two hundred eighty and twenty one one hundredths (280.21) feet to the Eastern and thereof at the Western side of South Duke Street, The side lines of said right of way are each parallel to and ten feet distant from said center line.

Together with the right and privilege to repair, renew and reconstruct the same and together with the right and privilege of free and uninterrupted access thereto at any and all times for each and every of the purposes in this instrument mentioned, including with workmen, tools, machinery and appliances.

To Have and to hold the rights and privileges hereby granted unto the said City of York its successors and assigns, to and for the only proper use of the City of York its successors, and assigns forever.

In Witness Whereof, the undersigned, have hereunto set their hands and seals this 9th day of July, A.D.1931,

Witness:
Erma H.Wolf,

Grier Hersh (Seal)
Helen M. Hersh, (Seal)

State of Pennsylvania,)
,SS.
County of York)

Before me, the subscriber, a Notary Public in and for said State and County personally appeared Grier Hersh, and Helen M. Hersh his wife who in due form of law acknowledged the foregoing Instrument to be their act and deed, to the end that the same might be recorded as such.

Witness my hand and Notarial seal this 9th day of July, A.D.1931.

Erma. G.
Wolf,
Notary Public
York Pa.,

Erma G. Wolf,
Notary Public
My Commission Expires
March 7th, 1933,

The undersigned agent for the grantee named in the Deed to which this certificate is attached and made part on behalf of said grantee, certified that said grantees, precise residence is 25 S. Duke St., York Pa.,
July 10, 1931,

Frederick B. Gerber,
City Solicitor.

Recorded July 10, 1931,
John W. Young, Recorder.

Ruff personally known to me to be the parties who executed the foregoing instrument, who acknowledged to me that they executed the same as their free and voluntary act for the uses and purposes therein stated, and in order that the same might be recorded as such.

Witness my hand and notarial seal this fourth day of January 1932.

Harvie L.Stubbs Notary Public
My Commission expires March 5, 1933

Harvie L.Stubbs
Notary Public
Delta Pa.

State of Pennsylvania:
County of Philadelphia: ss.

I, Daniel C.Thompson, a Notary Public in and for said County and State, do hereby certify that R.D.Leonard personally known to me to be the same person whose name is subscribed to the foregoing instrument as Vice President of The Atlantic Refining Company, a corporation, appeared before me this day in person, and acknowledged that he signed, sealed, executed and delivered said instrument as the act and deed of said corporation pursuant to the authorization of the Board of Directors of said corporation.

Witness my hand and notarial seal this 28th day of January 1932.

Daniel C.Thompson Notary Public
Com. expires March 7, 1933

Daniel C.
Thompson
Notary Public
Phila Co.
Pa.

Recorded January 27, 1932
John W.Young, Recorder

C.R.Ruff :
To :
The Atlantic Refining Co.:

Owner Consent

The undersigned, owner of the premises described in the above lease, hereby consents thereto,and agrees with The Atlantic Refining Company that it may install upon said premises such additional equipment as it may deem necessary, and that it may enter upon said premises and remove therefrom any and all pumps, tanks, connections, improvements, and equipment placed thereon by it, at any time within 15 days after the expiration of the then current term of Lessor's lease of said premises. The undersigned further agrees that should the tenant (lessor in the foregoing agreement), make default in the payment of rent reserved in the lease with the undersigned, then, and in that event, the owner shall give notice in writing to The Atlantic Refining Company of such default, and agrees that said The Atlantic Refining Company, may, at its option, pay such rental to the undersigned and thereby become subrogated and succeed to all the rights and privileges of the Lessee under said lease agreement.

Witness:
B.R.Pleck

C.R.Ruff

State of Pennsylvania:
County of York : ss.

Personally appeared before me, a Notary Public in and for said County and State, Chester R.Ruff personally known to me to be the parties who executed the foregoing Owner Consent who acknowledged to me that they executed the same as their free and voluntary act for the uses and purposes therein stated, and in order that the same might be recorded as such.

Witness my hand and notarial seal this fourth day of January 1932.

Harvie L.Stubbs Notary Public
My Commission expires March 5, 1933

Harvie L.
Stubbs
Notary Public
Delta Pa.

Recorded January 27, 1932
John W.Young, Recorder

13327

The York County Poor District :
To :
City of York :

Know all men by these Presents, That York County Poor District, for value received, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the York County Poor District a sewer, including manholes and other appurtenances, which sewer shall be located on the sixteen foot strip of land marked in red on the Plan hereto attached, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other apurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

To have and to hold the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

In Witness whereof, said York County Poor District has caused this Instrument to be duly signed and sealed this 28th day of March, A.D.1931.

York County
Poor District
York,Pa.

York County Poor District,
By C.F.Frey (Seal)
H.F.Crubling (Seal)
H.S.Fulton (seal)
Directors

State of Pennsylvania :
County of York : ss:

On the 28th day of March, A.D.1931, before me, the subscriber, an Alderman in and for said State and County, personally appeared C.E.Frey, B.F.Crumbling and H.S.Fulton, Directors of said York County Poor District, who being duly affirmed according to law say that they were personally present at the execution of the foregoing Instrument and saw the common or corporate seal of said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by them as Directors of said corporation, as and for the act and deed of said corporation, for the uses and purposes therein mentioned, and that the names of these deponents as Directors of said corporation, subscribed to said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

C.E.Frey
B.F.Crumling
H.S.Fulton

Affirmed and subscribed before me the day and year aforesaid.
Witness my hand and Aldermanic seal.
Chas A.Cameron Alderman
My Commission expires First Monday in January 1933

Chas A.Cameron
Alderman
York,Pa.

The undersigned, agent for the grantee named in the deed to which this certificate is attached and made part, on behalf of said grantee, certifies that said grantee's precise residence is 25 South Duke Street, York,Pennsylvania.

Frederick E.Gerber
City Solicitor

Recorded January 27, 1932
John W.Young, Recorder

13656
Minnie K. Hoke
to
Jacob M. Hoke

This Indenture Made the twenty fifth day of January in the year of our Lord one thousand nine hundred and thirty two.

Between Minnie K. Hoke, of the City of York in the County of York and State of Pennsylvania, widow, party of the first part, and Jacob M. Hoke, of the City County and State aforesaid party of the second part.

Witnesseth, that the said party of the first part, for and in consideration of the sum of Two hundred eighty nine and 22/100 ($289.22) Dollars lawful money of the United States of America unto her well and truly paid by the said party of the second part, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged has granted, bargained, sold, aliened, enfeoffed, released, conveyed and confirmed, and by these presents, doth grant, bargain sell, alien enfeoff, release, convey and confirm unto the said party of the second part, his heirs and assigns All the undivided one fourth interest, in fee of and in a tract of woodland situate in West Manchester Township, York County Pennsylvania, bounded limited and described as follows, to wit:

Beginning at a post at a corner of land, formerly of Daniel Glatfelter, Now of the heirs of John W. Bupp, deceased, and land of Albert Sprenkle; thence by land of the said Albert Sprenkle and land of Zach Lauer and the School District, of West Manchester Township, South fifty five degrees West, six hundred forty-five and eight tenths feet to a point in the center of a public road; thence in and along said public road and other woodland of the parties hereto North five degrees East, three hundred forty seven and five tenths feet to a point; thence in and along said public road and said woodland North twenty five and five eighths degrees West, four hundred eighty six and five tenths feet to a point; thence in and along said public road and said woodland North thirteen and seven eighths degrees West, one thousand twenty nine and six tenths feet to a point; thence by land formerly of Daniel Glatfelter, now of the heirs of John W. Bupp, deceased, south thirty four and one half degrees East one thousand seven hundred eleven feet to a post, the place of Beginning. Containing eleven acres and ninety one perches, neat measure.

It being a part of the same premises which Martin Hoke, by his deed dated the 1st day of July A.D.1885, and recorded in the office for the recording of Deeds in and for York County in Deed Book 7 M, page 219, granted and conveyed unto Mary Ann Smyser, her heirs and assigns; and a part of the same premises of which the said Mary Ann Smyser, widow, died seized, intestate, leaving to survive her, as her only heirs three brothers, Peter A. Hoke Jacob M. Hoke and William H. Hoke, in whom the said real estate vested under the intestate laws of Pennsylvania, and of which the said William H. Hoke, singleman, died seized of a one third interest therein, in fee, intestate, leaving to survive him as his only heirs two brothers Peter A. Hoke and Jacob M. Hoke, in whom the one third interest of the said William H. Hoke vested under the intestate laws of Pennsylvania, and a part of the same premises of which the said Peter A. Hoke died seized of a one half interest, in fee, leaving a last will and testament since his death duly probated

15126
Annie M. Menough Al
To
City of York

Know all men by these presents, That Annie M. Menough, widow, Sallie S. Bond, William S. Bond, her husband, William F. Loucks and M. Alice Loucks, his wife, of York, York County, Pennsylvania, for value received, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Annie M. Menough, Sallie S. Bond and William F. Loucks, located in the Fourteenth Ward of the City of York, Pennsylvania, a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the twenty foot strip of land marked in red on the Plan hereto attached, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstRuction, including with workmen, tools, machinery and appliances.

To have and to hold the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

It is hereby stipulated and conditioned that the City of York by the acceptance of this instrument thereby agrees to replace the material which may be excavated in the course of the exercise of any of the rights hereby granted on the same level as before the ditch of the sewer was opened, and also to repaiR any damage that may occur to the property traversed by the sewer in the course of the exercise of any of the rights hereby granted.

In witness whereof, the said Annie M. Menough, widow, Sallie S. Bond, William S. Bond, her husband, William F. Loucks and M. Alice Loucks, his wife, have hereunto set their hands and seals this 22nd day of April, A.D. 1932.

Witness:
W. S. Bond for
Urban S. Bond
Urban S. Bond
Margaret Loucks
Urban S. Bond

Luther D. Menough Attorney
Annie M. Menough (Seal)
Sallie S. Bond (Seal)
William S. Bond (Seal)
William F. Loucks (Seal)
M. Alice Loucks (Seal)

State of Pennsylvania
SS
County of York

Before me, the subscriber, a Notary Public in and for said State and County, Personally appeared Annie M. Mentough, widow, Sallie S. Bond, William S. Bond, her husband, William F. Loucks and M. Alice Loucks, his wife, who in due form of law acknowledged the foregoing instrument to be their act and deed, to the end that the same might be Recorded as such.

Witness my hand and Notarial seal this 22nd day of April, A.D. 1932.

Urban S. Bond
Notary Public
York County, Pa.

Urban S. Bond
Notary Public
My commission exPires February 10th, 1933

Recorded May 6, 1932
John W. Young, Recorder

[redacted]

799

15127 :
A. Henry Boesch Est. :
To :
City of York :

Know all Men by these presents, That Frederick Carl Boesch, Executor of A. Henry Boesch, deceased, for and in consideration of the sum of One Hundred Dollars ($100.00) unto him well and truly paid by the City of York, hereinafter named, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the estate of the said A. Henry Boesch, deceased, located in the City of York, Pennsylvania, a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the twenty foot strip of land marked in red on the Plan hereto attached, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

To have and to hold the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

It is hereby expressly stipulated and conditioned that in the event a public street shall be opened or laid out by the City of York over the land traversed by said sanitary sewer that the said sum of One Hundred Dollars ($100.00) shall be deducted from any damage to which the estate of A. Henry Boesch or its assigns may be entitled to receive by reason of such opening or laying out of street as aforesaid.

In witness whereof, the said Frederick Carl Boesch, Executor as aforesaid, has hereunto set his hand and seal this 4th day of May, A.D. 1932.

Witness: Frederick Carl Boesch (Seal)
Franklin M. Beecher Executor of A. Henry Boesch, deceased.

State of Pennsylvania
SS
County of York

Before me, the subscriber, a Notary Public in and for said State and County, personally appeared Frederick Carl Boesch, Executor of A. Henry Boesch, deceased, who in due form of law acknowledged the foregoing Instrument to be his act and deed, to the end that the same might be recorded as such.

Witness my hand and Notarial seal this 4th day of May, A.D. 1932.

Franklin M. Beecher
Notary Public
York, Pa.

Franklin M. Beecher
Notary Public
My commission expires March 6, 1935

Recorded May 6, 1932
John W. Young, Recorder

16173
Community Swimming Ass'n
To
City of York

Know all men by these presents; That the Community swimming Association, Incorporated, for value received, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York a municipal corporation of the Commonwealth of Pennsylvania, it s successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said The Community Swimming Association, Incorporated, located in the City of York, Pennsylvania, a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the twenty foot strip of land marked in red on the Plan hereto attached, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

To have and to hold the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This Instrument is executed and delivered pursuant to due and legal corporate action taken by the said The Community Swimming Association, Incorporated.

In witness whereof, said The Community swimming Association, Incorporated, has caused this Instrument to be signed by its President and its corporate seal to be hereunto affixed, duly attested by its Secretary, this 28th day of April, A.D. 1932.

Attest: Charles J. Relb
Secretary

The Community Swimming Association Incorporated,
By Samuel K. McCall, President

Community Swimming Association, Inc. Corporate Seal Legal Delaware

State of Pennsylvania
SS
County of York

On this 28th day of April, A.D. 1932, before me, the subscriber, a Notary Public in and for said State and County, Personally appeared Samuel K. McCall, President of the said The Community Swimming Association, Incorporated, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the named of this deponent as President and of Charles J. Relb as Secretary of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

Affirmed and subscribed before me the day and year aforesaid.

Samuel K. McCall

Witness my hand and Notarial seal,
M. E. Freed
Notary Public
My commission expires March 6, 1935

M. E. Freed
Notary Public Pa.
York, Pa.

Know all men by these presents, That The Guardian Trust Company of York, Pa., mortagee in that certain mortgage bearing date August 13, 1927 and recorded on August 17, 1927 in the Recorder's Office of York County, Pennsylvania, in whose office it appears of record in Mortgage Book 8 X, page 464, and plaintiff in that certain judgment entered on April 8, 1929 in the Court of Common Pleas of

Witness my Hand and Notarial seal the day and year aforesaid.

J.H.Bartenschlager (Seal) Notary Public

J.H.Bartenschlager Notary Public Stewartstown Pa.

My Commission expires April 6th 1937

Recorded August 9, 1933

John W.Young, Recorder

21255 :
Norard Hosiery Mills Inc. :
To :
City of York :

KNOW ALL MEN BY THESE PRESENTS, That Norard Hosiery Mills Inc., for value received, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Norard Hosiery Mills Inc., located in the City of York, Pennsylvania, a sewer, including manholes and other appurtenances, which sewer shall be located on the sixteen (16) foot wide strip of land marked in red on Plan hereto attached, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument has been executed and delivered pursuant to due and legal authority granted by action duly taken by the proper corporate authorities of the undersigned Company.

IN WITNESS WHEREOF, said Norard Hosiery Mills Inc. has caused this Instrument to be signed by its President and its corporate seal to be hereunto affixed, duly attested by its Secretary, this 4 day of August A.D.1933.

Attest: Arthur H.Goodman Secretary

Norard Hosiery Mills Inc. New York

Norard Hosiery Mills Inc., By Isaac Hiller President

STATE OF NEW YORK :
SS:
COUNTY OF NEW YORK :

BE IT REMEMBERED that on the 4 day of August, A.D.1933, before me, a Notary Public commisioned for State of New York, County of New York, personally appeared Isaac Hiller President of Norard Hosiery Mills Inc., who being duly sworn, deposeth and saith that he was personally present at the execution of the foregoing Instrument and saw the common seal of the said Norard Hosiery Mills Inc. duly affixed thereto; that the seal so affixed is the common and corporate seal of the said Norard Hosiery Mills Inc; that the aforesaid Instrument was duly signed, sealed and delivered by, and as and for the act and deed of the said Norard Hosiery Mills Inc., for the uses and purposes therein mentioned; and that the name of this deponent subscribed to the aforesaid Instrument as President of the said Norard Hosiery Mills Inc., in attestationof the due execution and delivery of the same is in this deponent's own proper handwriting.

Isaac Hiller

Sworn and subscribed before me the day and year aforesaid.

Witness my hand and seal.

Oscar B.Rost Notary Public Bronx Co.No.78 Reg No.14-R-35

Cert. filed in N.Y.Co. No.407, Reg No. 5-R-237

Philip B. Gross Notary Public
My Commission expires March 18, 1937

Philip B. Gross
Notary Public
York, Pa.

Recorded December 21, 1933
John W. Young, Recorder

22006
Agnes Kehm vir
To
City of York

WHEREAS, the City of York is about to build a reinforced concrete sewer from a point at the Eastern side of Roosevelt Avenue, in the City of York, Pennsylvania, which sewer runs thence in a generally Northeasterly course to Willis Run; location of which proposed sewer is shown on the blue print attached hereto and made a part hereof; the purpose of which sewer is draining of water from said Roosevelt Avenue and such other territory as in the future the City may desire to drain through such sewer.

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, Agnes Kehm and Charles W.Kehm, her husband, of the City of York, Pennsylvania, in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations paid to the undersigned, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right and privilege to construct, maintain, operate and use in, on and across the land of the said Agnes Kehm a reinforced concrete sewer, including manholes and other appurtenances, which sewer shall follow the course substantially as shown on the attached blue print, together with the right and privilege to repair, remove and reconstruct the same and together with the right and privilege of free and uninterrupted access thereto at any and all times for each and every of said purposes, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the said City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever. Provided, however, if the said Agnes Kehm, her heirs, executors, administrators or assigns, shall be sued for any matter or thing growing out of the construction, maintenance, operation or use of said reinforced concrete sewer, including manholes and other appurtenances, that the City of York, its successors and assigns, shall and will indemnify and save harmless the persons so sued against any and all loss, costs and damage sustained in or by reason of such suit; and provided further that the City of York will indemnify the said Agnes Kehm, her heirs, executors, administrators or assigns, for any damage which may be suffered by her shrubbery or lawn in connection with the construction of said sewer or any subsequent repair thereof.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 15th day of December, A.D.1933.

Witness:

Myrtus E.Mickley Dlp

Agnes Kehm (Seal)
Charles W.Kehm (Seal)

STATE OF PENNSYLVANIA:
SS:
COUNTY OF YORK :

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared the above named Agnes Kehm and Charles W.Kehm, her husband, who in due form of law acknowledged the foregoing Grant to be their act and deed, to the end that the same might be recorded as such.

WITNESS My hand and Notarial seal this 15th day of December A.D.1933.

Myrtus E. Mickley Olp Notary Public
My Commission expires March 9, 1935
Recorded December 21, 1933
John W.Young, Recorder

Myrtus E.
Mickley Olp
Notary Public
York,Pa.

22699
Sallie S.Bond al
To
City of York

WHEREAS, the City of York is about to build a reinforced concrete sewer from a point at the Eastern side of Roosevelt Avenue, in the City of York, Pennsylvania, which sewer runs thence in a generally Northeasterly course to Willis Run; location of which proposed sewer is shown on blue print attached hereto and made apart hereof; the purpose of which sewer is draining of water from said Roosevelt Avenue and such other territory as in the future the City may desire to drain through such sewer.

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, Sallie S.Bond , W.S.Bond, her husband, Luther D.Menough, Violet Menough, his wife, William F.Loucks and M.Alice Loucks, his wife, of the City of York, Pennsylvania, in consideration of the sum of One Dollars ($1.00) and other good and valuable consideration paid to the undersigned, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right and privilege to construct, maintain, operate and use in, on and across theland of the said Sallie S.Bond, Luther D.Menough and William F.Loucks a reinforced concrete sewer, including manholes and other appurtenances, which sewer shall follow the course substantially as shown on the attached blue print, together with the right and privilege to repair, remove and reconstruct the same and together with the right and privilege of free and uninterrupted access thereto at any and all times for each and every of said purposes, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the said City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever. Provided, however, if the said Sallie S.Bond, Luther D.Menough and William F.Loucks, their heirs, executors, administrators or assigns, shall be sued for any matter or thing growing out of the construction, maintenance, operation or use of said reinforced concrete sewer, including manholes and other appurtenances, that the City of York, its successors and assigns, shll and will indemnify and save harmless the persons so sued against any and all loss, costs and damage sustained in or by reason of such suit.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 14th day of December, A.D.1933.

Witness:

W.S.Bond	Sallie S.Bond (Seal)
Sallie S.Bond	W.S.Bond (Seal)
Violet Menough	Luther D.Menough (Seal)
L.D.Menough	Violet Menough (Seal)
Margaret Loucks	William F.Loucks (Seal)
Wm.F.Loucks	M.Alice Loucks (Seal)

STATE OF PENNSYLVANIA:
ss:
COUNTY OF YORK :

Before me, the subscriber, a Notary Public commissioned for the City

of York, York County, Pennsylvania, personally appeared Sallie S.Bond, W.S.Bond, her husband, Luther D.Monough, Violet Monough, his wife, William F.Loucks and M.Alice Loucks, his wife, who in due form of law acknowledged the foregoing Grant to be their act and deed, to the end that the same might be recorded as such.

WITNESS my hand and Notorial seal this 14th day of December, A.D.1933.

Urban S.Bond
Notary Public
York,Pa.

Urban S.Bond Notary Public
My Commission expires February 19th 1937
Recorded December 21, 1933
John W.Young, Recorder

22903 DISTRICT COURT OF THE UNITED STATES MIDDLE DISTRICT OF PENNSYLVANIA.

_____ DIVISION

IN THE MATTER OF)
Walter E.Henry,) No. 8543 IN BANKRUPTCY.
Bankrupt.)

At Scranton, Pa., in said District, on the 21st day of November A.D.1933, before the Honorable the Judges of said Court in Bankruptcy, the petition of Walter E.Henry of the Borough of Lewistown, Mifflin County, Penna. that he be adjudged a bankrupt, within the true intent and meaning of the acts of Congress relating to bankruptcy, having been heard and duly considered, the said Walter E.Henry is hereby declared and adjudged a bankrupt accordingly.

WITNESS the Honorable the Judges of the said Court, and the seal thereof, at Scranton, Pennsylvania, in said District, on the 21st day of November A.D.1933.

S.W.Hofford, Clerk
By E.L.Hill Deputy Clerk

Official Seal

Recorded December 22, 1933
John W.Young, Recorder

22904 : IN THE DISTRICT COURT OF THE UNITED STATES
Walter E.Henry Bankrupt : FOR THE MIDDLE DISTRICT OF PENNSYLVANIA.
To :
J.F.Morgan Trustee, :

IN THE MATTER OF)
Walter E.Henry,) In Bankruptcy. No.8543.
Bankrupt.)

At a Court of Bankruptcy, held in and for the Middle District of Pennsylvania, at Huntingdon, Pennsylvania,this 9th day of December, A.D.1933.

Before H.L.Henderson, Referee in Bankruptcy.

The petition for the adjudication of the above named bankrupt(s) having been filed therein on the 21st day of November, 1933, and he (it) (they) having been duly adjudicated bankrupt on November 21st. 1933, and J.F.Morgan, of Lewistown, Mifflin County, Pa., and in said District, having been duly appointed Trustee of the estate of the above-named Bankrupt (s) on the 2nd. day of December, 1933, and he having accepted said trust and given a bond with sureties for the faithful performance of his official duties,in the amount fixed by the order of the Court, to wit in the sum of One Thousand Dollars now, on motion of Esq.,

party of the first part and her heirs, and against all and every other person or persons whomsoever lawfully claiming, or to claim the same or any part thereof, shall and will warrant and forever defend.

IN WITNESS WHEREOF, the said party of the first part has to these presents set her hand and seal. Dated the day and year first above written.

Sealed and Delivered in the Presence of

Donald H. Yost — Kate Deitz (Seal)

Jacob E. Weaver

Received the day of the date of the above Indenture of the above named William Cloud McDaniel and Minnie V. McDaniel, his wife, parties of the first part the sum of Seven hundred and fifty ($750.00) Dollars, lawful money of the United States, being the consideration money above mentioned in full.

Witness:

Donald H. Yost — Kate Deitz

Jacob E. Weaver

State of Pennsylvania,)
: ss.
County of York)

On this eleventh day of May A. D. 1936, before me, the subscriber, a Notary Public in and for said County and State, personally came the above named Kate Deitz (widow) who in due form of law acknowledged the foregoing Indenture to be her act and deed, and desired that the same might be recorded as such.

Witness my hand and notarial seal, the day and year aforesaid.

Jacob E. Weaver, Notary Public (Seal)

My Commission expires Jan. 22, 1937.

Jacob E. Weaver
Notary Public
3 E. Market St. York, Pa.

I do hereby certify that the precise residence of the within named grantees is York Township, York County, Pennsylvania.

May 11, 1936. — S. S. Laucks, Attorney for Grantees.

Recorded May 11, 1936 - Howard M. Rohrbaugh, Recorder.

12032.

York Hospital : $1. St.Rev. 4/1/36 York Hospt.
to :
City of York :

THIS INDENTURE, Made the first day of April, in the year of our Lord one thousand nine hundred and thirty-six (1936),

Between York Hospital, a Pennsylvania corporation, Grantor, and the City of York, a municipal corporation of the Commonwealth of Pennsylvania, Grantee.

WHEREAS, York Hospital has built a sanitary sewer running from its land formerly located adjacent to the City of York but now in the City of York, Pennsylvania, Southwestwardly and connecting the same to the Sanitary Sewerage System of the City of York at a point at or near the intersection of Cottage Place and Penn Street, in the City of York, Pennsylvania; and

WHEREAS, the City of York has purchased all the estate, right, title and interest of the said York Hospital in and to said sewer and in and to the right of way in and through which the same is built, see Ordinance of the City of York, Bill No. 19, Session 1931; and

WHEREAS, the purchase price of the said purchase, to wit, Twenty-two Thousand Two Hundred Sixty-one Dollars and fifty-four cents ($22,261.54), has been fully paid by the City of York to York Hospital and it is the desire of York Hospital by this deed to convey all its estate, right, title and interest in and to said sewer and said right of way to the City of York.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the York Hospital for and in consideration as aforesaid does hereby grant and convey unto the City of York all the estate, right, title and interest of the said York Hospital in and to the said sanitary sewer and in and to the right of way in and through which the same is built. As to said right of way reference is made to the following recited four instruments:

Deed of Percival Perquhar, et al. to York Hospital dated October 12, 1929 and recorded in the Recorder's Office of York County, Pennsylvania, in Deed Book 24 O, page 652; deed of George E. Neff, et ux. to York Hospital dated November 7, 1929 and recorded in the Recorder's Office aforesaid in Deed Book 24 O, page 653; deed of William H. Kurtz, et al. to York Hospital dated January 8, 1930 and recorded in the Recorder's Office aforesaid in Deed Book 24 O, page 654, and deed of David M. Myers, et al. Executors of William A. Myers, deceased, to York Hospital dated November 20, 1929 and recorded in the Recorder's Office aforesaid in Deed Book 24 O, page 654.

AND, the said Grantor does hereby covenant and agree to and with the said Grantee, that it, the said Grantor, its successors and assigns, shall and will specially warrant and forever defend the herein above described estate, right, title and interest in and to said sewer and said right of way, with the hereditaments and appurtenances, unto the said Grantee, its successors and assigns, against the said Grantor, and against every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

AND the said York Hospital, Grantor, does hereby constitute and appoint Charles M. Kerr to be its attorney for it, and in its name and as and for its corporate act and deed to acknowledge this Deed before any person having authority by the laws of the Commonwealth of Pennsylvania to take such acknowledgment, to the intent that the same may be duly recorded.

This deed is executed and delivered pursuant to due and legal corporate action first had and taken by York Hospital, Grantor.

IN WITNESS WHEREOF, the said York Hospital, Grantor, has caused this Indenture to be signed in its corporate name by its President, and has caused to be affixed hereunto the common and corporate seal of the said corporation, attested by its Secretary, the day and year first above written.

Attest:

Jacob E. Weaver,
Secretary.

York Hospital
York, Pa.

YORK HOSPITAL

By Charles M. Kerr,
President.

State of Pennsylvania,)
: ss.
County of York,)

I hereby certify that on this 1st day of April, A. D. 1936, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Charles M. Kerr, the attorney named in the foregoing deed, and by virtue and in pursuance of the authority therein conferred upon him, acknowledged the said Deed to be the act of the said York Hospital.

WITNESS my hand and Notarial seal the day and year aforesaid.

George Hay Kain, Jr.
Notary Public
York, Pa.

George Hay Kain, Jr., Notary Public.
My commission expires Jan. 31, 1937.

I hereby certify that the precise Residence of the within grantee or grantees is 28 S. Duke St. York, Penna.

Henry Butler, City Clerk.

Recorded May 11, 1936 - Howard M. Rohrbaugh, Recorder.

Harry C. Stitt, Cashier of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the names of this deponent as President and of Harry C. Stitt as Cashier of the said corporation, subscribed to the above Indenture in attestation of its due execution and delivery, are of their and each of their respective handwritings.

Zach Lauer

Affirmed and subscribed to before me the day and year aforesaid.

Witness my hand and Notarial seal.

Walter M. Senft, Notary Public

My Commission Expires May 14th, 1939.

Walter M. Senft Notary Public West Manchester Twp. York Co. Pa.

Recorded August 30, 1937, Howard M. Kohrbaugh, Recorder.

23237

David H. Myers Exr. al : WHEREAS, the undersigned, David H. Myers,

to : William H. Myers and Mary J. Myers, Executors of the last

York City : will and testament of William A. Myers, late of York, Pennsylvania, deceased, are the owners of land located in the City of York, Pennsylvania, on the east side of South Pine Street, and desire the City of York to build a storm water sewer on South Pine Street between Windsor Street and Edgecomb Avenue, same to begin at a point on South Pine Street approximately one hundred and seventy (170) feet South of Windsor Street and to run Southwardly a distance of approximately two hundred (200) feet to a point approximately eighty (80) feet North of Edgecomb Avenue; and

WHEREAS, the undersigned are willing to conduct the water from said point of beginning of said sewer into and over the land of the undersigned.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that the undersigned for value received, the receipt whereof is hereby acknowledged, do hereby grant and convey unto the City of York, its successors and assigns, the right and privilege to run the water of the said sewer into and over the land of the undersigned as aforesaid and they do hereby absolutely release, discharge and acquit the City of York, its successors and assigns, of and from all suits, claims, actions and demands for or by reason thereof.

It is hereby stipulated, however, that in the event the City of York builds a storm water sewer on South Pine Street which shall connect with said Northern end of said sewer, which new sewer will accommodate and take care of the water theretofore running into and over the property of the undersigned, that then and in such event all rights of the City of York in and to the right of way hereby granted shall cease.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 28th day of May, A. D. 1937.

Witness:

Adam H. Hamme — David H. Myers (SEAL)

Adam H. Hamme — William H. Myers (SEAL)

Adam H. Hamme — Mary J. Myers (SEAL)

Executors as aforesaid

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared the above named David H. Myers, William H. Myers, and Mary J. Myers, Executors as aforesaid, who in due form of law acknowledged the foregoing Release to be their act and deed, to the end that the same might be recorded as such.

verily believe that the signature to said instrument and impression of seal thereon are genuine.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said Court, at the City of Washington, D. C., the 28th day of MAY, A. D. 1938.

District Court of the United States for the District of Columbia.

CHARLES E. STEWART, Clerk

By John O. Bowen, Assistant Clerk

Recorded June 13, 1938 Herbert L. Smith - Recorder

3394.

York County Institution District to York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, York County Institution District, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned an open channel which shall be located on the thirty foot strip of land located and indicated on Plan attached hereto, which channel shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, together with the right and privilege to repair said open channel, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of such purposes of construction, maintenance, operation, use and repair, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land, as well as on the strip of land (in part twenty foot wide) located and indicated on the Second Plan attached hereto, which Second Plan is labeled "York, Penna., Right of Way Plan 27" San. Sewer," etc.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said two strips of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said two strips of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal, and reconstruction, including with workmen, tools, machinery and appliances.

See Image 696 for Re-recorded Right of Way

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns forever.

IN WITNESS WHEREOF, the said York County Institution District has caused this Instrument to be duly signed and sealed this 4 day of January, A. D., 1935.

Attest: E. E. Baugher
Chief Clerk

York County Institution District Penna.

YORK COUNTY INSTITUTION DISTRICT
BY James McDowell (SEAL)
Clinton E. Gobrecht (SEAL)
W. H. Snyder (SEAL)

Recorded June 10, 1938 Herbert L. Smith - Recorder

3395.

J. Victor Jones, al :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off the surface water and in consequence thereof the stream overflows its banks

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns forever.

IN WITNESS WHEREOF, the said York County Institution District has caused this Instrument to be duly signed and sealed this 4 day of January, A. D., 1935.

Attest: E. E. Baugher
Chief Clerk

York County Institution District Penna.

YORK COUNTY INSTITUTION DISTRICT

BY James McDowell (SEAL)
Clinton E. Gobrecht (SEAL)
W. H. Snyder (SEAL)

Recorded June 10, 1938 Herbert L. Smith - Recorder

3395.

J. Victor Jones, al :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off the surface water and in consequence thereof the stream overflows its banks

and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, J. Victor Jones, Harvey C. Jones and George A. Jones, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said J. Victor Jones, Harvey C. Jones and George A. Jones and their respective spouses in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty, and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the Office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will be located on said strip of land,

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said J. Victor Jones, Harvey C. Jones and George A. Jones and their respective spouses, in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew, and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools,

machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: The fences and improvements shall be restored to their former condition if disturbed. The culvert to be built on said strip of land shall be covered throughout its whole length over said strip of land.

IN WITNESS WHEREOF, the said J. Victor Jones, Harvey C. Jones and George A. Jones and their respective spouses, Lettie A. Jones, Bertha O. Jones and Bertha B. Jones, have hereunto set their hands and seals this 6th day of September, A. D. 1935.

Witness:	Erma G. Wolf	J. Victor Jones	(SEAL)
	Erma G. Wolf	Lettie A. Jones	(SEAL)
	Joshua S. Hull	Harvey C. Jones	(SEAL)
	Joshua S. Hull	Bertha O. Jones	(SEAL)
	Erma G. Wolf	George A. Jones	(SEAL)
	Erma G. Wolf	Bertha B. Jones	(SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 6th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, came the above named J. Victor Jones, George A. Jones and their respective spouses, Lettie A. Jones, and Bertha B. Jones, and acknowledged the foregoing instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notariel seal the day and year aforesaid.

Erma G. Wolf - Notary Public
My Commission Expires March 7, 1937

Erma G. Wolf
Notary Public
York
York County
Pa.

STATE OF MARYLAND)
: SS.
CITY OF BALTIMORE)

On this 9th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for Baltimore County, State of Maryland, came the above named Harvey C. Jones and Bertha O. Jones, his wife, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notariel seal the day and year aforesaid.

Joshua S. Hull - Notary Public
My commission expires May 3, 1937

Joshua S.
Hull
Notary Public
Baltimore
County.

Recorded June 10, 1936 Herbert L. Smith - Recorder

3396.

York Tack & Nail Works :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation; and

WHEREAS, the improvement by which it is proposed to relieve said situation will be located in part on the property of the undersigned, Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, located in the City of York, Pennsylvania.

machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: The fences and improvements shall be restored to their former condition if disturbed. The culvert to be built on said strip of land shall be covered throughout its whole length over said strip of land.

IN WITNESS WHEREOF, the said J. Victor Jones, Harvey C. Jones and George A. Jones and their respective spouses, Lettie A. Jones, Bertha O. Jones and Bertha B. Jones, have hereunto set their hands and seals this 6th day of September, A. D. 1935.

Witness:	Erma G. Wolf	J. Victor Jones	(SEAL)
	Erma G. Wolf	Lettie A. Jones	(SEAL)
	Joshua S. Hull	Harvey C. Jones	(SEAL)
	Joshua S. Hull	Bertha O. Jones	(SEAL)
	Erma G. Wolf	George A. Jones	(SEAL)
	Erma G. Wolf	Bertha B. Jones	(SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 6th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, came the above named J. Victor Jones, George A. Jones and their respective spouses, Lettie A. Jones, and Bertha B. Jones, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Erma G. Wolf - Notary Public

My Commission Expires March 7, 1937

Erma G. Wolf
Notary Public
York
York County
Pa.

STATE OF MARYLAND)
: SS.
CITY OF BALTIMORE)

On this 9th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for Baltimore County, State of Maryland, came the above named Harvey C. Jones and Bertha O. Jones, his wife, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Joshua S. Hull - Notary Public

My commission expires May 3, 1937

Joshua S.
Hull
Notary Public
Baltimore
County.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3396.

York Tack & Nail Works :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation; and

WHEREAS, the improvement by which it is proposed to relieve said situation will be located in part on the property of the undersigned, Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, located in the City of York, Pennsylvania.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located in part on the eight foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal, and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: that the City of York in the making of said improvements if the hedge or concrete pavement is disturbed, said hedge will be replaced and replanted and said pavement will be relaid so that the said hedge and pavement will be in the same condition after said improvements are made as the same are at the time of the execution of this agreement, and the surface of the ground will be re-

placed and put in the same condition as it now is; but the trees on said strip will be destroyed and will not be transplanted or replaced. Also it is agreed as part of the consideration for this agreement that in case it becomes necessary at any time or times for the City of York, its successors and assigns, to disturb the surface of said strip, or said hedge or pavement, for the purpose of construction, maintenance, operation, use, repair, renewal and/or reconstruction, that City of York, its successors and assigns will replace, relay and replant said surface, hedge and pavement respectively so that same will be put in the same condition they were respectively before being disturbed. All of said work of replacing, relaying and replanting shall be done by and at the expense of said City of York, its successors and assigns and without cost or expense of said York Tack and Nail Works, its partners, successors or assigns.

IN WITNESS WHEREOF, Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, have hereunto set their hands and seals this 24th day of January, A. D. 1930.

Witness: Dessie B. Dagold
M. M. Morgan

Howard E. Holland (SEAL)
Herbert S. Holland (SEAL)
Surviving co-partners, trading and doing business under the name of York Tack and Nail Works.

STATE OF MARYLAND)
: SS.
CITY OF BALTIMORE)

On this 2nd day of Feby, A. D. 1930, before me, the subscriber, a Notary Public, commissioned for State of Maryland, City of Baltimore, came the above named Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, and acknowledged the foregoing Instrument be to their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Kendol M. Lewis
Notary Public
Baltimore, Md.

Kendle M. Lewis - Notary Public
My Commission Expires May 1, 1930

Recorded June 10, 1930 Herbert L. Smith - Recorder

3397.

New York Wire Cloth Co. :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, New York Wire Cloth Company, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in ac-

placed and put in the same condition as it now is; but the trees on said strip will be destroyed and will not be transplanted or replaced. Also it is agreed as part of the consideration for this agreement that in case it becomes necessary at any time or times for the City of York, its successors and assigns, to disturb the surface of said strip, or said hedge or pavement, for the purpose of construction, maintenance, operation, use, repair, renewal and/or reconstruction, that City of York, its successors and assigns will replace, relay and replant said surface, hedge and pavement respectively so that same will be put in the same condition they were respectively before being disturbed. All of said work of replacing, relaying and replanting shall be done by and at the expense of said City of York, its successors and assigns and without cost or expense of said York Tack and Nail Works, its partners, successors or assigns.

IN WITNESS WHEREOF, Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, have hereunto set their hands and seals this 24th day of January, A. D. 1938.

Witness: Bessie B. Dagold
M. M. Morgan

Howard E. Holland (SEAL)
Herbert S. Holland (SEAL)
Surviving co-partners, trading and doing business under the name of York Tack and Nail Works.

STATE OF MARYLAND)
: SS.
CITY OF BALTIMORE)

On this 2nd day of Feby, A. D. 1938, before me, the subscriber, a Notary Public, commissioned for State of Maryland, City of Baltimore, came the above named Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, and acknowledged the foregoing Instrument to be to their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Kendol M. Lewis
Notary Public
Baltimore, Md.

Kendle M. Lewis - Notary Public
My Commission Expires May 1, 1939

Recorded June 10, 1938 Herbert L. Smith - Recorder

3397.

New York Wire Cloth Co. :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, New York Wire Cloth Company, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in ac-

cordance with plans and specifications prepared therefor and on file in the Office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenances, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns.

This instrument is executed and delivered subject to the following stipulation: That the City of York in the making of said improvements shall fully protect the foundations, walls and buildings of the undersigned against damage and for such protection the City shall assume responsibility.

IN WITNESS WHEREOF, New York Wire Cloth Company, has caused this Instrument to be signed by its Vice President and its corporate seal to be hereunto affixed, duly attested by its Secretary, this 10th day of March, A. D. 1938.

Attest: W. F. Barnes
Secretary

New York Wire Cloth Company Incorporated Delaware

NEW YORK WIRE CLOTH COMPANY,
By Robt. P. Turner - Vice-President

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 18th day of March, A. D. 1938, before me, the subscriber, a Notary Public commissioned for the said County and State personally appeared Robert P. Turner, Vice-President of the said New York Wire Cloth Company, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as Vice-President of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as Vice-President and of W. F. Barnes as Secretary of said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

Robt. P. Turner

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and Notarial seal.

Ruth E. Wolf
Notary Public
York
York County
Pa.

Ruth E. Wolf - Notary Public
My Commission Expires March 9, 1940

Recorded June 10, 1938 Herbert L. Smith - Recorder.

3390.

Home Furniture Co. :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, Home Furniture Company, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty, and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located in part on the strip of land, which strip for the greater part in length is five feet in width and for the remainder thereof is of larger varying width and which strip is located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, Together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 18th day of March, A. D. 1938, before me, the subscriber, a Notary Public commissioned for the said County and State personally appeared Robert P. Turner, Vice-President of the said New York Wire Cloth Company, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as Vice-President of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as Vice-President and of W. F. Barnes as Secretary of said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

Robt. P. Turner

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and Notarial seal.

Ruth E. Wolf
Notary Public
York
York County
Pa.

Ruth E. Wolf - Notary Public
My Commission Expires March 9, 1939

Recorded June 10. 1938 Herbert L. Smith - Recorder.

3308.

Home Furniture Co. :
to :
York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, Home Furniture Company, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty, and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located in part on the strip of land, which strip for the greater part in length is five feet in width and for the remainder thereof is of larger varying width and which strip is located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, Together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: That the City of York in the making of said improvement shall fully protect the foundations, walls and buildings of the undersigned against damage and for such protection the City shall assume responsibility.

IN WITNESS WHEREOF, Home Furniture Company, has caused this Instrument to be signed by its President and its corporate seal to be hereunto affixed, duly attested by its Acting Secretary, this 12th day of January, A. D. 1938.

Attest: H. W. Deitz
Acting Secretary

Home Furniture Company York, Pa. Incorporated 1911

HOME FURNITURE COMPANY
By J. L. Gerber - President

STATE OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

On this 12th day of January, A. D. 1938, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared J. L. Gerber, President of the said Home Furniture Company, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as President and of H. W. Deitz as

Acting Secretary of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

J. L. Gerber

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and Notarial seal.

Erma G. Wolf - Notary Public

My Commission Expires March 7, 1941

Erma G.
Wolf
Notary Public
York
York County
Pa.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3399.

David P. Klinedinst, Trustee, al
to
York City

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, David P. Klinedinst and Thomas E. Brooks, Trustees, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located in part on the three sided piece of land located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, together with the right and privilege to repair, renew, and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to three sided piece of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer will or may be located in part on said three sided piece of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said three sided piece of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said three sided piece of land at any and all times for each and every of said purposes of construction, maintenances, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its

successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, David P. Klinedinst and Thomas E. Brooks, Trustees, have hereunto set their hands and seals this 14th day of September, A. D. 1935.

Witness: S. S. Laucks — David P. Klinedinst (SEAL)

S. S. Laucks — Thomas E. Brooks (SEAL)
Trustees.

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 14th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, came the above named David P. Klinedinst and Thomas E. Brooks, Trustees, and acknowledged the foregoing instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Clarence L. Hauser - Notary Public

My Commission Expires Feb. 21, 1939

Clarence L.
Hauser
Notary Public
York
York Co.
Pa.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3400.

American Chain & Cable Co.Inc. to York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, American Chain & Cable Company, Inc., located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty, and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed

successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, David F. Klinedinst and Thomas E. Brooks, Trustees, have hereunto set their hands and seals this 14th day of September, A. D. 1935.

Witness: S. S. Laucks — David F. Klinedinst (SEAL)

S. S. Laucks — Thomas E. Brooks (SEAL)
Trustees.

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 14th day of September, A. D. 1935, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, came the above named David F. Klinedinst and Thomas E. Brooks, Trustees, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Clarence L. Hauser - Notary Public

My Commission Expires Feb. 21, 1939

Clarence L.
Hauser
Notary Public
York
York Co.
Pa.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3400.

American Chain & Cable Co.Inc. to York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, American Chain & Cable Company, Inc., located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty, and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed

in accordance with plans and specifications prepared therefor and on file in the Office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenances, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: That the City of York in the making of said improvements shall fully protect the foundations, walls and buildings of the undersigned against damage and for such protection the City shall assume responsibility.

IN WITNESS WHEREOF, American Chain & Cable Company, Inc., has caused this Instrument to be signed by its President and its corporate seal to be hereunto affixed, duly attested by its Asst. Secretary, this 12th day of January, A. D. 1937.

Attest: Frederick C. Geier
Assistant Secretary

American Chain & Cable Company Inc. New York 1912

AMERICAN CHAIN & CABLE COMPANY, INC.,
By William T. Morris - President

STATE OF CONNECTICUT)
: SS.
COUNTY OF FAIRFIELD)

On the 12th day of January, A. D. 1938, before me, the sub-

scriber, a Notary Public commissioned for the City of Bridgeport, Fairfield County, Connecticut, personally came William T. Morris, President of the said American Chain & Cable Company, Inc., who being duly affirmed according to law says, that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as President and of Frederick C. Geier as Asst. Secretary of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

William T. Morris

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and Notarial seal.

Arthur C. Lasko - Notary Public

My commission expires February 1, 1940

Arthur C.
Lasko
Notary Public
Bridgeport,
Conn.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3401.

George H. Wolf, al : WHEREAS, Poor House Run, which drains extensive ter-
to : ritory inside and outside of the City of York, Pennsylvania, at
York City : times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desired to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, George H. Wolf, Charles B. Wolf and Earl L. Wolf, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said George H. Wolf, Charles B. Wolf, Earl L. Wolf and their respective spouses in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the Office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said George H. Wolf, Charles B. Wolf and Earl L. Wolf and their respective spouses, in consideration of benefits to be receiv-

scriber, a Notary Public commissioned for the City of Bridgeport, Fairfield County, Connecticut, personally came William T. Morris, President of the said American Chain & Cable Company, Inc., who being duly affirmed according to law says, that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as President and of Frederick C. Geier as Asst. Secretary of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

William T. Morris

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and Notarial seal.

Arthur C. Laske - Notary Public

My commission expires February 1, 1940

Arthur C. Laske Notary Public Bridgeport, Conn.

Recorded June 10, 1938 Herbert L. Smith - Recorder

3401.

George H. Wolf, al : to : York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desired to relieve this situation by the building of a culvert and open channel; and

WHEREAS, said improvement will be located in part on the property of the undersigned, George H. Wolf, Charles B. Wolf and Earl L. Wolf, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said George H. Wolf, Charles B. Wolf, Earl L. Wolf and their respective spouses in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned a reinforced concrete culvert, which culvert shall be located on the twenty foot strip of land located and indicated on plan attached hereto, and which culvert shall be constructed in accordance with plans and specifications prepared therefor and on file in the Office of the City Engineer of the City of York, together with the right and privilege to repair, renew and reconstruct said culvert, including appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the said George H. Wolf, Charles B. Wolf and Earl L. Wolf and their respective spouses, in consideration of benefits to be receiv-

ed from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said strip of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

This instrument is executed and delivered subject to the following stipulation: That the City of York in the making of said improvements shall fully protect the foundations, walls and buildings of the undersigned against damage and for such protection the City shall assume responsibility.

IN WITNESS WHEREOF, the said George H. Wolf, Charles B. Wolf, Earl L. Wolf and their respective spouses have hereunto set their hands and seals this 17th day of February, A. D. 1938.

Witness:	Elda N. King	Geo. H. Wolf	(SEAL)
	Elda N. King	Anna K. Wolf	(SEAL)
	Elda N. King	Charles B. Wolf	(SEAL)
	Elda N. King	Frances G. Wolf	(SEAL)
	Elda N. King	Earle L. Wolf	(SEAL)
	Elda N. King	Evelyn V. Wolf	(SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 17th day of February, A. D. 1937, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, came the above named Geo. H. Wolf, Anna K. Wolf, Charles B. Wolf, Frances G. Wolf, Earle L. Wolf, Evelyn V. Wolf, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Walter B. Liggitt
Notary Public
York
York County
Pa.

Walter B. Liggitt - Notary Public

My Commission Expires March 2, 1941

Recorded June 10, 1938 Herbert L. Smith - Recorder

3402.

Maryland & Pennsylvania Railroad Company
to
City of York

THIS AGREEMENT, made on April 6th, 1930, by and between MARYLAND AND PENNSYLVANIA RAILROAD COMPANY, hereinafter called the "Railroad Company", party of the first part, and City of York, Pennsylvania, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, hereinafter called the "Licensee", party of the second part,

WHEREAS, the above named Licensee proposes, through its City Council, to adopt an Ordinance providing a specific plan for taking care of storm water drainage from a point approximately 240 feet south of Chestnut Street to the intersection of Norway Street and the Maryland and Pennsylvania Railroad and for natural stream purposes; and

WHEREAS, the above named Licensee desires to construct and maintain certain storm water drains consisting of reinforced concrete culvert from a point approximately 240 feet south of Chestnut Street to Lamour Street, and reinforced concrete storm water sewer and appurtenances from Lamour Street to Norway Street for the purpose of conveying storm water drainage and for natural stream purposes, also certain sanitary sewers and appurtenances (said reinforced concrete culvert, reinforced concrete storm water sewer, and sanitary sewers and appurtenances being hereinafter referred to as "sewers") partly on the right of way and property of the Railroad Company and partly on other property in the City of York, York County, Pennsylvania, as shown by plans hereinafter referred to.

WITNESSETH, that the Railroad Company, in consideration of the covenants and agreements hereinafter mentioned, and of the advantages accruing to it as a result of the disposal of storm water under the plan of the Licensee for construction of the aforesaid sewers, hereby grants in perpetuity the Licensee insofar as the Railroad Company's present title enables it so to do, the right to construct, use, maintain, and renew the said sewers at the said locations upon and under the following terms and conditions, to wit:

1. The location of the said sewers shall be as set forth and shown on Plan consisting of six (6) sheets, marked Exhibit "A", hereto annexed and made a part hereof.

2. The said sewers shall be constructed, maintained, renewed and operated in accordance with the exclusive purposes s' ..ed in the preamble hereof, and with construction plans as shown by drawings and other data contained in the bound volume labeled "Report on the Control of Floods along Poor House Run in the City of York, Pennsylvania, 1935", the cover on which and the blue prints contained therein so far as they relate to construction on the property covered by this agreement are initialed by C. F. W. Wallow, City Engineer of the Licensee, and E. E. McLellan, Chief Engineer of the Railroad Company (said volume to be considered as a part of this agreement but not attached hereto), excepting only when modifications thereof or departures therefrom have been subsequently agreed to in writing by the parties hereto; which plans and the construction and maintenance of the said sewers shall be satisfactory to and approved by the President of the Railroad Company or his duly authorized agent; and the said Licensee shall and will at all times during the continuance of this agreement keep the said sewers in good order and repair.

3. If the Licensee desires or is required, as herein provided, to revise, renew, add to or alter in any manner whatsoever the said sewers, it shall submit plans to the Railroad Company and procure the written approval of the Railroad Company thereto before any work or alterations of the structure is performed, and the terms and conditions of this contract with respect to the original construction shall apply thereto.

4. The Licensee shall at all times be obligated promptly to maintain, repair and renew said sewers; and shall in any event upon notice in writing from the Railroad Company requiring

it so to do, promptly make such repairs and renewals thereto as may be required by the Railroad Company, or the Railroad Company, in the case of an emergency and for the purpose of protecting and safeguarding its property, traffic, patrons, or employees from damage or injury, may with or without notice to the Licensee at any time make such repairs and renewals thereto and furnish such material therefor as it deems adequate and necessary.

5. (a) All work herein contemplated, of whatever nature and for whatever purpose when done, shall be done and performed by the Licensee, and at such time and in such manner as may be approved by the President of the Railroad Company or his duly authorized agent; or the Railroad Company may from time to time perform such emergency or other work made necessary to insure the safe and uninterrupted operation of the Railroad of the Railroad Company. It is particularly understood and agreed that except as provided in paragraph (b) of this article, or in cases where the Railroad Company shall have agreed in writing to temporarily discontinue the use of certain portions of its tracks, the work of construction, maintenance, repairs, renewals, alteration or adjustment of the said sewers shall be carried on in a manner which will not interfere with the continuous and safe operation of locomotives and cars over all of the railroad tracks now located on or adjacent to the proposed location of the said sewers.

(b) The Railroad Company hereby assents to the temporary removal of that part of its southernmost track beginning at a point approximately 40 feet east of its bridge over Poor House Run, and extending easterly a distance of approximately 300 feet to the end of the switch near the north line of Walnut Street, provided (1) that the Licensee notifies the Railroad Company at least one week in advance of the date upon which said Licensee proposes to start excavation at the point in question, in order that the Railroad Company may remove the track and make other changes in its track layout made necessary by said removal, and (2) that the Licensee will begin the work of excavation as soon as the track is removed, and will complete the job, including the back-filling, as expeditiously as practicable in order that the track may be replaced in its original location and service resumed thereon at the earliest possible date, it being particularly understood that adequate forces will be used, and such other steps taken by the Licensee as may be necessary to comply with this condition, and that in no event shall the track be out of service more than sixty (60) days.

6. The supervision of the work performed and the approval of the material used in construction, maintenance, repairs and renewals of the facilities covered by this Agreement shall be within the jurisdiction right of the Railroad Company.

7. If the Railroad Company deems it advisable during the progress of any work of construction, maintenance, repairs and renewals, alterations, adjustments or removal of said sewers, to place watchmen or flagmen for the protection of the property owned or in possession or control of the Railroad Company or its employees, patrons or licensees, the Railroad Company shall have the right so to do, and the Licensee shall upon bill being rendered, pay or refund the cost and expense thereof, but failure of the said Railroad Company so to do, or failure or neglect of such watchmen or flagmen shall in no event be construed as in any manner or degree affecting any obligations of the Licensee as provided for in Articles 8 and 9 hereof.

8. In the event that the Railroad Company shall do and perform any of the work herein mentioned or contemplated, whether of construction, maintenance, repairs and renewals, alterations, adjustments or removal of the said sewers for and at the expense of the Licensee, said Licensee covenants and agrees to and shall indemnify, protect and save harmless the Railroad Company from all losses and damage to property, or injury to or death of persons growing out of or resulting from the performance of said work when not attributable to the fault, failure or negligence of the Railroad Company, except that if such loss, injury or damage shall be caused by the joint or concurring negligence of both parties hereto, the same shall

Appendix A-5-1 (AUS)

eight Dollars and Twenty-one Cents ($68.21).

NOW KNOW ALL MEN BY THESE PRESENTS, that in consideration of the said payment, I do hereby release and forever discharge The Guardian Trust Company of York, Pa., of and from said guardianship, and of and from all further payments, actions, suits, accountings, claims and demands whatsoever for or by reason thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the 24th day of June, 1938.

Witness: M. M. Grove   Joseph L. Burkey (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)   On this 24th day of June, 1938, before me, a Notary Public in and for said County and State, personally appeared the above named Joseph L. Burkey, and acknowledged the foregoing Release to be his act and deed and desired the same to be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

M. M. Grove - Notary Public

M. M. Grove
Notary Public
York
York County
Pa.

My Commission Expires July 6, 1940

Recorded June 24, 1938   Herbert L. Smith - Recorder

3611.

York County Institution District : to : York City :

WHEREAS, Poor House Run, which drains extensive territory inside and outside of the City of York, Pennsylvania, at times of heavy rains is insufficient to carry off surface water and in consequence thereof the stream overflows its banks and damages adjacent properties; and

WHEREAS, the City of York desires to relieve this situation by the building of a culvert and open channel; and

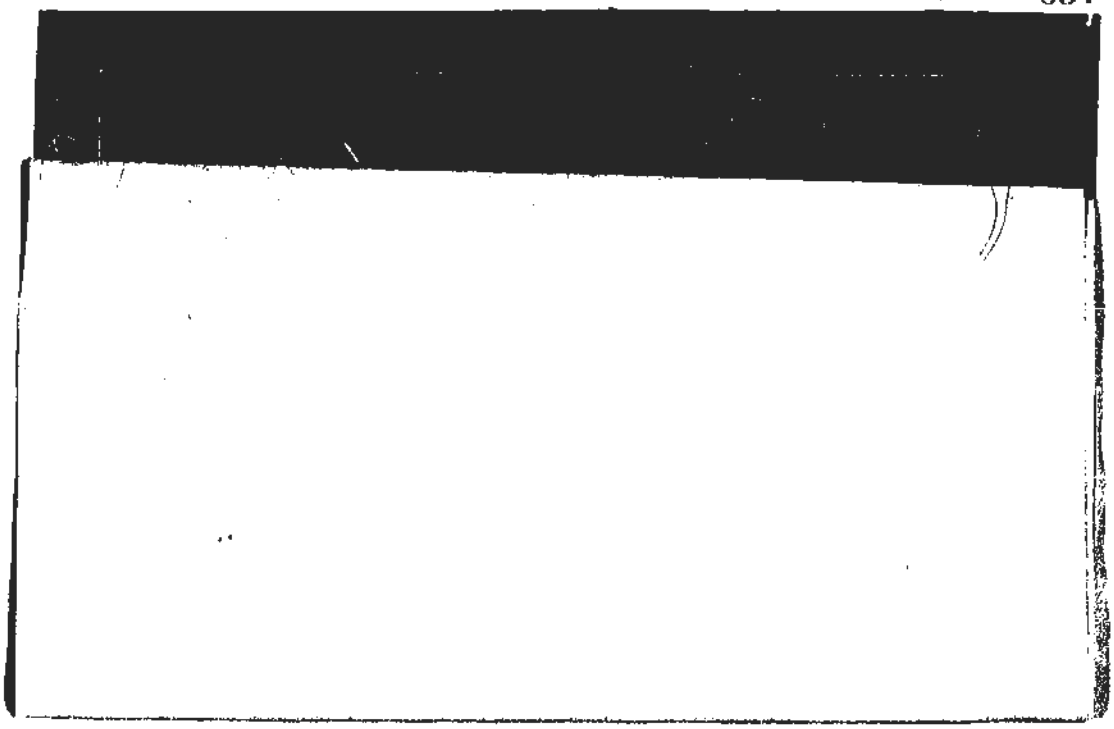
WHEREAS, said improvement will be located in part on the property of the undersigned, York County Institution District, located in the City of York, Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the undersigned an open channel which shall be located on the thirty foot strip of land located and indicated on Plan attached hereto, which channel shall be constructed in accordance with plans and specifications prepared therefor and on file in the office of the City Engineer of the City of York, together with the right and privilege to repair said open channel, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of such purposes of construction, maintenance, operation, use and repair, including with workmen, tools, machinery and appliances; and

WHEREAS, the City of York contemplates the building of a sanitary sewer which sewer will or may be located in part on said strip of land, as well as on the strip of land (in part twenty foot wide) located and indicated on the Second Plan attached hereto, which Second Plan is labeled "York, Penna., Right of Way Plan 27" San. Sewer," etc.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That the undersigned in consideration of benefits to be received from said improvement, as well as in consideration of other good and valuable considerations, receipt whereof is hereby acknowledged, does by these presents grant,

This Right of way is re-recorded to correct error on Right of way recorded on page 515



bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across said two strips of land a sanitary sewer, including manholes and other appurtenances, together with right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said two strips of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the said York County Institution District has caused this Instrument to be duly signed and sealed this 24th day of June, A. D. 1930.

Attest:

E. E. Daugher
Chief Clerk

Commissioner's Office York County Pa.

YORK COUNTY INSTITUTION DISTRICT

BY James McDowell (SEAL)
Clinton E. Gobrecht (SEAL)
W. H. Snyder (SEAL)

York County Institution District Penna.

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On the 24th day of June, A. D. 1930, before me, the Recorder of Deeds in and for the County of York and State of Pennsylvania, personally appeared James McDowell, President of the said York County Institution District, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that

the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as President and of E. E. Baugher as Chief Clerk of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery, are of their and each of their respective handwritings.

James McDowell

Affirmed and subscribed before me the day and year aforesaid.

Witness my hand and official seal.

Herbert L. Smith - Recorder of Deeds.

Recordor's
Office
York County,
Pa.

Recorded June 24, 1930 Herbert L. Smith - Recordor

3816.

Andrew J. Gerber :
to :
George W. Gerber, ux :

WHEREAS, George W. Gerber and Martha E. Gerber, his wife, under date April 2, 1930, executed and delivered to Andrew J. Gerber, of Dover Township, York County, Pennsylvania, a certain mortgage which on April 2, 1930, was recorded in the Recordor's Office of York County, Pennsylvania, where it appears of record in Mortgage Book Volume 10 J, page 649; and

WHEREAS, the said mortgage is a lien, inter alia, upon the hereinafter described and hereby released land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that the undersigned, the said Andrew J. Gerber, mortgagee as aforesaid, for value received, the receipt whereof is hereby acknowledged does hereby release, discharge and acquit in favor of George W. Gerber and Martha E. Gerber, his wife, their heirs and assigns,

ALL the following described lot located in Dover Township, York County, Pennsylvania, at the Northwest corner of the Shippensburg Road and the road leading from Strayer's Church to the road leading to Admire, which lot is bounded and described as follows, to wit:

Beginning at the Northwest corner of said two roads and extending thence along the second mentioned road North three-quarters (3/4) of a degree West one hundred and seventy-five (175) feet to a peg at other lands of George W. Gerber and Martha E. Gerber; thence along the same North eighty-six and one-fourth (86¼) degrees West sixty-five (65) feet to a peg at said other lands; thence along the same South three-quarters (3/4) of a degree East one hundred and seventy-five (175) feet to the North side of the first mentioned Road; thence along the same South eighty-six and one-fourth (86¼) degrees East sixty-five (65) feet to said point of corner of said two roads and the place of beginning, - being a part of said mortgaged premises,

Of and from the lien, liability and operation of the said mortgage, without prejudice, however, to the liability of other lands bound thereby to pay the whole of the said mortgage, debt, interest and costs in full.

IN WITNESS WHEREOF, the said Andrew J. Gerber, has hereunto set his hand and seal this 25th day of June, A. D. 1930.

Witness: Erma G. Wolf Andrew J. Gerber (SEAL)

Frederick E. Gerber

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, County of York and State of Pennsylvania, personally appeared the above

executors and assigns agrees to make the said payments of Fifteen ($15.00) Dollars per month promptly on the 1st day of each and every month, or within thirty (30) days thereafter, in accordance with the terms of Paragraph 1 and 2 of this Agreement.

4. The said Franklin H. Dellinger agrees not to hold the said Thomas A. Dillon liable for the One Hundred Fifteen ($115.00) Dollars back interest now due and owing from Daisy K. and Curtis S. Ruppert, and agrees to hold the said Curtis S. Ruppert alone liable therefor.

5. The said Franklin H. Dellinger agrees that after the said Thomas A. Dillon has paid Nine Hundred ($900.00) Dollars, together with interest, on account of the purchase price of the said property, and the said Daisy K. and Curtis S.Ruppert have executed and delivered their deed for the said property to the said Thomas A. Dillon, he will satisfy his said mortgage against Ruppert and accept from Dillon a mortgage for the balance then due and unpaid, which mortgage is to constitute a first lien on said property and is to bear interest at the rate of 6% per cent per annum.

IN WITNESS WHEREOF, the parties hereto intend to legally bind themselves, their heirs, executors, administrators and assigns.

Franklin H. Dellinger (SEAL)

Thomas A. Dillon (SEAL)

COMMONWEALTH OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 21st day of July, A. D. 1930, before me a Notary Public in and for said County and State came the above named Franklin H. Dellinger and acknowledged the foregoing to be his act and deed, and desired the same to be recorded as such.

WITNESS my hand and notarial seal, the day and year aforesaid.

Ethel F. Crider
Notary Public
York
York County
Pa.

Ethel F. Crider - Notary Public

My Commission Expires at end of next Session of Senate

Recorded July 21, 1930 Herbert L. Smith - Recorder

4153.

Ella L. Kleffman, al :
to :
City of York :

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, Ella L. Kleffman and Albert H. Kleffman, widow and son respectively of John E. Kleffman, formerly of York, Pennsylvania, but now of Wilmington, Delaware, for value received, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Ella L. Kleffman and Albert H. Kleffman a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the fifty (50) foot strip of land shown on Plan attached hereto, which strip is located in the City of York, York County, Pennsylvania, and is bounded on the West by property of George D. Deardorff and on the East by property of the C. E.Miller Estate, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors

and assigns, forever.

IN WITNESS WHEREOF, the undersigned, the said Ella L. Kleffman and Albert H. Kleffman have hereunto set their hands and seals this 18th day of July, A. D. 1930.

Witness: Erma G. Wolf — Ella L. Kleffman (SEAL)

Albert H. Kleffman (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Ella L. Kleffman, widow, and Albert H. Kleffman, who in due form of law acknowledged the foregoing Instrument to be their act and deed, to the end that the same might be recorded as such.

WITNESS my hand and Notarial seal this 18th day of July, A. D., 1930.

Erma G. Wolf - Notary Public

My commission expires March 7, 1941

Erma G. Wolf
Notary Public
York
York County
Pa.

Recorded July 21, 1938 Herbert L. Smith - Recorder

4154.

George D. Deardorff :
to :
City of York :

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, George D. Deardorff, single man, of York, York County, Pennsylvania, for value received, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said George D. Deardorff, a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the fifty (50) foot strip of land shown on Plan attached hereto, which strip is located in the City of York, York County, Pennsylvania, and is bounded on the East by property of Ella L. Kleffmen and on the West by Pine Street, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and togethar with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the undersigned, the said George D. Deardorff, has hereunto set his hand and seal this 27th day of April, A. D. 1938.

Witness: J. Ray Buss — George D. Deardorff (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for

and assigns, forever.

IN WITNESS WHEREOF, the undersigned, the said Ella L. Kleffman and Albert H. Kleffman have hereunto set their hands and seals this 10th day of July, A. D. 1938.

Witness: Erma G. Wolf — Ella L. Kleffman (SEAL)

Albert H. Kleffman (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Ella L. Kleffman, widow, and Albert H. Kleffman, who in due form of law acknowledged the foregoing Instrument to be their act and deed, to the end that the same might be recorded as such.

WITNESS my hand and Notarial seal this 10th day of July, A. D., 1938.

Erma G. Wolf - Notary Public

My commission expires March 7, 1941

Erma G. Wolf
Notary Public
York
York County
Pa.

Recorded July 21, 1938 Herbert L. Smith - Recorder

4154.

George D. Deardorff :
to :
City of York :

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, George D. Deardorff, single man, of York, York County, Pennsylvania, for value received, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said George D. Deardorff, a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the fifty (50) foot strip of land shown on Plan attached hereto, which strip is located in the City of York, York County, Pennsylvania, and is bounded on the East by property of Ella L. Kleffmen and on the West by Pine Street, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

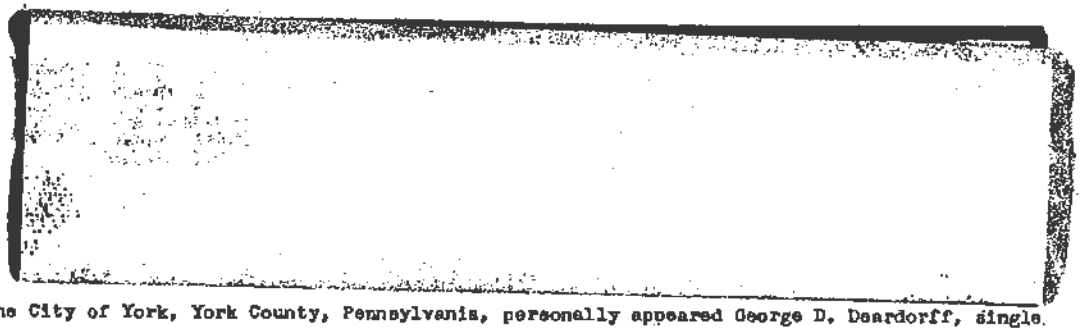
TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the undersigned, the said George D. Deardorff, has hereunto set his hand and seal this 27th day of April, A. D. 1938.

Witness: J. Ray Huss — George D. Deardorff (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for



the City of York, York County, Pennsylvania, personally appeared George D. Deardorff, single man, who in due form of law acknowledged the foregoing Instrument to be his act and deed, to the end that the same might be recorded as such.

WITNESS my hand and Notarial seal this 27th day of April, A. D. 1938

Miriam E. Patterson - Notary Public

My commission expires at the end of the next session of the Senate

Miriam E. Patterson Notary Public York, Pa.

Recorded July 21, 1938 Herbert L. Smith - Recorder

4155.

Sarah E. Miller, al : KNOW ALL MEN BY THESE PRESENTS, that the under-
to : signed, Sarah E. Miller, widow, Charles Kauffman Miller and
City of York : Beulah M. Miller Miller, his wife, of York, York County, Pennsylvania, for value received, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Sarah E. Miller and Charles Kauffmann Miller a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the fifty (50) foot strip of land shown on Plan attached hereto, which strip is located in the City of York, York County, Pennsylvania, and is bounded on the east by Lamour Street and on the west by property of Ella L. Kleffman, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

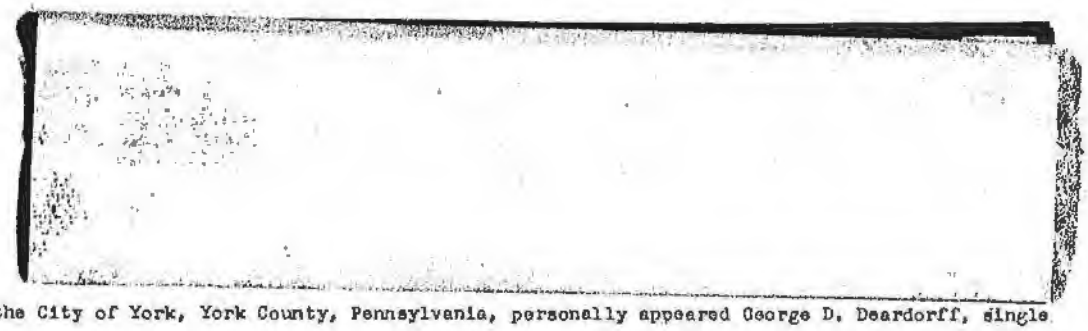
TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 27th day of April, A. D. 1938.

Witness:	Edwin C. Myers	Sarah E. Miller	(SEAL)
	Edwin C. Myers	Charles Kauffman Miller	(SEAL)
	Edwin C. Myers	Beulah M. Miller	(SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Sarah E. Miller, Charles Kauffman Miller and Miller, his wife, who in due form of law acknowledged the foregoing Instrument to be their act and deed, to the end that the same might be recorded as such.



the City of York, York County, Pennsylvania, personally appeared George D. Deardorff, single man, who in due form of law acknowledged the foregoing Instrument to be his act and deed, to the end that the same might be recorded as such.

WITNESS my hand and Notarial seal this 27th day of April, A. D. 1938

Miriam E. Patterson - Notary Public

My commission expires at the end of the next session of the Senate

Miriam E. Patterson Notary Public York, Pa.

Recorded July 21, 1938 Herbert L. Smith - Recorder

4155.

Sarah E. Miller, al : KNOW ALL MEN BY THESE PRESENTS, that the under-
to : signed, Sarah E. Miller, widow, Charles Kauffman Miller and
City of York : Beulah M. Miller Miller, his wife, of York, York County,
Pennsylvania, for value received, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Sarah E. Miller and Charles Kauffman Miller a sanitary sewer, including manholes and other appurtenances, which sewer shall be located on the fifty (50) foot strip of land shown on Plan attached hereto, which strip is located in the City of York, York County, Pennsylvania, and is bounded on the east by Lamour Street and on the west by property of Ella L. Kleffman, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

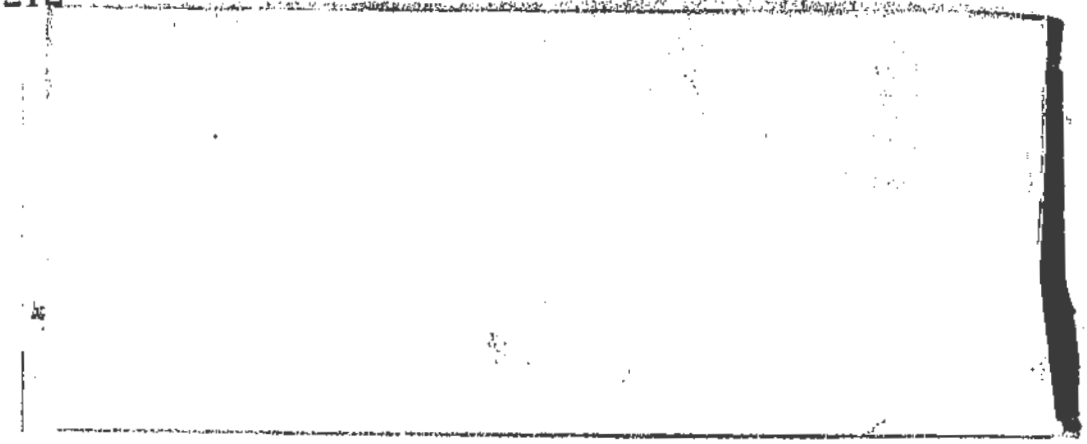
TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 27th day of April, A. D. 1930.

Witness:	Edwin C. Myers	Sarah E. Miller	(SEAL)
	Edwin C. Myers	Charles Kauffman Miller	(SEAL)
	Edwin C. Myers	Beulah M. Miller	(SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Sarah E. Miller, Charles Kauffman Miller and Miller, his wife, who in due form of law acknowledged the foregoing Instrument to be their act and deed, to the end that the same might be recorded as such.



WITNESS my hand and Notarial seal this 27th day of April, A. D. 1938.

William W. Mausa - Alderman

My Commission Expires First Monday in January, 1942

William W.
Mausa
Alderman
Tenth Ward
York Co.
York
Pa.

Recorded July 21, 1938 Herbert L. Smith - Recorder

4160.

Evan Woodrow Shaw :

to :

First National Bank & Trust Co. of Red Lion, Guardian :

KNOW ALL MEN BY THESE PRESENTS That I, the undersigned, do hereby acknowledge that I have this day had and received of and from First National Bank and Trust Company of Red Lion, guardian, the sum of Three hundred three dollars and sixty-two cents ($303.62) in full satisfaction and payment of my share of the estate of my grandmother, Matilda Shaw, late of Windsor Township, York County, Pennsylvania, deceased.

That the following is a statement of account of the First National Bank and Trust Company of Red Lion.

Receipts.

April 18, 1932, received from Matilda Shaw Estate	$ 267.65
Interest to date	73.64
	341.29

Expenditures

S. S. Laucks, guardian appointment	$ 2.00
Walter L. Trout, Clerk of Courts, appointment	1.50
Pennsylvania tax	9.61
First National Bank & Trust Co., commission	16.06
Notary fee	.50
Herbert L. Smith, recording release	3.00
S. S. Laucks, preparing release	6.00
	$ 37.67
BALANCE DUE WARD	303.62
	$ 341.29

That I have examined the above account and am satisfied to accept the balance shown in said account without requiring that an account be filed in the Orphans' Court of York County, Pennsylvania.

NOW THEREFORE, in consideration of the payment of the above amount to me, I, the undersigned, do hereby remise, release, quitclaim and forever discharge the First National Bank and Trust Company of Red Lion, Guardian, its successors and assigns, of and from the payment of any other or further sum as my share of the estate of Matilda Shaw, deceased, and of and from all actions, suits, claims, duties or demands whatsoever arising therefrom.

Witness my hand and seal this first day of July, 1930.

Ella M. Gemmill
Notary Public
Red Lion
York County
Pennsylvania.

Ella M. Gemmill - N. P.
Commission expires Mar. 5, 1941

Evan Woodrow Shaw (SEAL)

COMMONWEALTH OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 31st day of March A. D. 1939, before me, a Notary Public came the above named Katie Wolf (widow) and acknowledged the foregoing Deed to be her act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Helen C. Riedel - Notary Public

Helen C. Riedel Notary Public York York Co. Pa.

My Commission Expires Aug. 2, 1942

I HEREBY CERTIFY, that the precise address of the grantee herein is 1407 E. Market St., Spring Garden Twp., York, Penna.

York Trust Co. - per Norman A. Reeser

Recorded March 31, 1939, Herbert L. Smith, Recorder

9000.

J. Edward Haugh and Ester Haugh, his wife to Alma I. Bowser to First National Bank of Stewartstown :

Mortgage Dated May 14th, 1938.

Upon Property Situated in Hopewell Township, York County, Pennsylvania.

To Secure Fifteen hundred ($1500.00) dollars with interest at the rate of Six per cent. per annum.

RECORDED in York County, Pennsylvania, on the 14th day of May Anno Domini 1938, in Mortgage Book "Vol. 10-K" at page 390.

I, Alma I. Bowser, for value received do hereby grant, bargain, sell, assign, transfer and set over unto The First National Bank of Stewartstown, Pa., their successors and assigns all my my right, title, interest and claim in the above stated Mortgage, and all moneys due or to become due thereon, and the Bond accompanying the same, and all my right, title, property and interest in and to the premises described in said mortgage.

WITNESS my hand and seal this Twenty-ninth day of March Anno Domini one thousand nine hundred and thirty-nine (1939).

Witness present at signing.

W. O. Fulton — Alma I. Bowser (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY YORK)

Before me, the subscriber, a Justice of the Peace in and for said county, personally came the above named Alma I. Bowser, and in due form of law acknowledged the above written assignment to be her act and deed, and desire the same might be recorded as such for the purpose therein mentioned.

WITNESS my hand and official seal this Twenty-ninth day of March Anno Domini one thousand nine hundred and thirty-nine (1939).

W. O. Fulton Justice of the Peace Stewartstown York Co. Pa.

W. O. Fulton (SEAL) Justice of the Peace

My commission expires January 1, 1940

I hereby certify that the precise residence of the within assignee is Stewartstown Boro, York County, Pa.

W. O. Fulton

Recorded March 31, 1939, Herbert L. Smith, Recorder

9001.

Howard E. Holland, al to City of York :

KNOW ALL MEN BY THESE PRESENTS, That Howard E. Holland Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, located in the City of York, Pennsylvania, for value received, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release,

convey and confirm unto the City of York, a municipal corporation of the Commonwealth of Pennsylvania, its successors and assigns, the right, liberty and privilege to construct, maintain, operate and use in, on and across the property of the said Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business as aforesaid, located in the City of York, Pennsylvania, a sewer, including manholes and other appurtenances, which sewer shall be located on the ten (10) foot wide strip of land marked in red on plan attached hereto, together with the right and privilege to repair, renew and reconstruct the said sewer, including manholes and other appurtenances, and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, operation, use, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, have hereunto set their hands and seals this 3rd day of March, A. D. 1939.

Witness: Ann L. McDonnell — Howard E. Holland (SEAL)

Theo Riezelski — Herbert S. Holland (SEAL)
Surviving co-partners, trading and doing business under the name of York Tack and Nail Works

STATE OF CONNECTICUT)
: SS.
CITY OF DERBY)

On this third day of March A. D. 1939, before me, the subscriber, a Notary Public commissioned for _ came the above named Howard E. Holland and Herbert S. Holland, surviving co-partners, trading and doing business under the name of York Tack and Nail Works, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Catherine H. Loftus - Notary Public

My commission expires 1941

Catherine H.
Loftus
Notary Public
Derby
Connecticut

Recorded March 31, 1939, Herbert L. Smith, Recorder.

9304.

Hopewell Presbyterian Church :
to :
Dr. J. Montraville Curran :

THIS INDENTURE, MADE THE Twenty-third day of October in the year of our Lord one thousand nine hundred and Thirteen.

BETWEEN J. C. Miller, W. W. Knerr, G. T. Sheull, B. P. P. Manifold, C. C. Smith and W. F. Logan, Trustees of Hopewell Presbyterian Church, of East Hopewell Township, York County, State of Pennsylvania, of the first Part, and Dr. J.

Alta Laney — C. Edward Hartley (SEAL)

Alberta McDonald — Virginia Hartley (SEAL)

Received the day of the date of the above Indenture of the above named party of the second part the sum of Fifty-five Hundred Dollars ($5500.00), lawful money of the United States, being the consideration money above mentioned in full.

Witness: Erma G. Wolf — Edna M. Briggs
Erma G. Wolf — John H. Hartley
Erma G. Wolf — Helen O. Long
Alta Laney — C. Edward Hartley

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 27th day of May A. D. 1939, before me, the subscriber, a Notary Public in and for said State and County, personally came the above named Edna M. Briggs, George W. Briggs, her husband, John H. Hartley, Neva Hartley, his wife, Helen O.Long and George A. Long, her husband, who in due form of law acknowledged the foregoing Indenture to be their act and deed, and desired that the same might be recorded as such.

Witness my hand and Notarial seal the day and year aforesaid.

Erma G. Wolf (SEAL) Notary Public

My commission expires March 7, 1941

Erma
G. Wolf
Notary Public
York County
York
Pa.

STATE OF W. VA.)
: SS.
COUNTY OF OHIO)

On this 25th day of May, A. D. 1939, before me, the subscriber, a Notary Public in and for said State and County, personally came the above named C. Edward Hartley and Virginia Hartley, his wife, who in due form of law acknowledged the foregoing Indenture to be their act and deed, and desired that the same might be recorded as such.

Witness my hand and Notarial seal the day and year aforesaid.

Hazel Laney (SEAL) Notary Public

My commission expires Feb. 27, 1947

Hazel Laney
Notary Public
Ohio Co.
W. Va.

I do hereby certify that the precise residence of the within named grantee is 25 South Duke Street, York, Pennsylvania.

1939. Frederick D. Gerber, Attorney for Grantee.

Recorded June 30, 1939 - Herbert L. Smith, Recorder.

11261.

York Water Company : $2.50 Fed.Rev. 6/30/39 Y.W.C.
to :
City of York :

THIS INDENTURE, Made the 26th day of June in the year of our Lord one thousand nine hundred and thirty-nine (1939),

BETWEEN The York Water Company, a corporation organized under the laws of the Commonwealth of Pennsylvania, having its principal office in the City of York, in the County of York, in said Commonwealth, party of the first part, AND The City of York, a municipal corporation created and existing under the laws of said Commonwealth, party of the second part,

WITNESSETH, That the said The York Water Company, for and in consideration of the sum of Two Thousand Five Hundred ($2,500.00) Dollars lawful money of the United States of America, unto it well and truly paid by the said The City of York at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, enfeoffed, released and confirmed, and by these presents does grant, bargain, sell, alien, enfeoff, release and confirm unto the said The City of York, its successors and assigns,

ALL the following described piece or parcel of land located in the Ninth Ward of the City of York, York County, Pennsylvania, bounded and described as follows, to wit:

Beginning at a point on the East side of South Penn Street at the lands now or formerly of Edna M. Briggs, John H. Hartley, Helen G. Long and C. Edward Hartley, about to be purchased or purchased by The City of York; thence along the same North seventy-seven (77) degrees East four hundred seventy-six (476) feet, more or less, to a point on the Western bank of Codorus River; thence along said bank of said River by its various courses in a generally Southwesterly and Westerly direction to a point on the East side of South Penn Street; thence along said side of said Penn Street one hundred seventy (170) feet, more or less, to said point and place of Beginning.

Being the same premises which William Witta and Sophia Witta, his wife, by their deed dated the 27th day of September, 1895, and recorded in the Office for the Recording of Deeds in and for York County, Pennsylvania, in Record Book 10-K, page 540, granted and conveyed unto The York Water Company; and a part of the same premises which J. H. Baer, by his deed dated the 22nd day of March, 1883, and recorded in said Office for the Recording of Deeds, in Record Book 7-T, page 444, granted and conveyed unto The York Water Company; said The York Water Company being party of the first part hereto.

Subject, nevertheless, to the right of The City of York to maintain through the tract of land hereinbefore described a line of sewer as now constructed, the said right of said City being more fully set forth in an agreement between The York Water Company and the said City, dated the 6th day of July, 1904.

Reserving, nevertheless, to the said The York Water Company, its successors and assigns, at all times hereafter forever, the right and privilege of taking and appropriating from the Codorus River, without any liability or responsibility for loss or damage to the party of the second part, its successors or assigns, by reason of said taking or appropriating, all of the water of said River or so much thereof as may be needed by the party of the first part, its successors and assigns, for the purpose of furnishing and supplying water to the public under its corporate franchises as a water company.

It is understood and agreed, and the party of the second part evidences such understanding and agreement by the acceptance of this deed, that so much of the land hereinbefore conveyed as lies South of the Northern line of the Codorus River as said line has been established by an ordinance of the City of York approved the 1st day of April, 1924, and by the Water and Power Resources Board of the Department of Forests and Waters of the Commonwealth of Pennsylvania on the 30th day of April, 1925, shall not be held or taken to be within the terms of the warranty hereinafter contained, but that as to such portion of said tract of land The York Water Company remises, releases and quit-claims unto the party of the second part, its successors and assigns, all of its estate, right, title and interest, excepting, however, the right to take water as above reserved, and that such remission, release and quit-claim shall extend not only to the tract of land as above described but as to any portion thereof which may lie Southwardly and Eastwardly of the line of the said Codorus River, which forms the Southern and Eastern boundary of the tract of land hereinbefore conveyed.

This conveyance is made under and by virtue of a resolution duly adopted by the Board of Directors of the said The York Water Company at a regular meeting thereof held on the 29th day of May, 1939, at which a quorum was present and voting, and the land so authorized to be sold and hereinbefore conveyed being no longer used or useful by the said Company in the public service.

TOGETHER with all and singular the buildings, ways, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances whatsoever thereunto belonging, or in any wise appertaining, and the reversions and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, property, claim and demand whatsoever, of The York

Water Company in law, equity, or otherwise howsoever, of, in, and to the same and every part thereof,

To have and to hold the said described piece or parcel of land, the hereditaments and premises hereby granted or mentioned and intended so to be, with the appurtenances, unto the said The City of York, its successors and assigns, to and for the only proper use and behoof of the said The City of York, its successors and assigns, forever, subject as aforesaid.

AND the said The York Water Company Does by these presents, covenant, grant and agree, to and with the said The City of York, its successors and assigns, that it, the said The York Water Company all and singular the hereditaments and premises herein above described and granted, or mentioned and intended so to be, with the appurtenances, unto the said The City of York, its successors and assigns, against it, the said The York Water Company and against all and every other person or persons whomsoever lawfully claiming or to claim the same or any part thereof, shall and will WARRANT and forever DEFEND.

IN WITNESS WHEREOF, the said The York Water Company has caused its corporate seal to be hereto affixed, duly attested, the day and year first above written.

Sealed and Delivered
in the Presence of Us: The York Water Company 1816 THE YORK WATER COMPANY

ATTEST: Orier Hereh
Secretary

By Charles M. Kerr,
President.

STATE OF PENNSYLVANIA }
: SS.
COUNTY OF YORK }

Be it remembered that on the 20th day of June, A. D. 1939, before me, the subscriber, a Notary Public of said State, residing in the City of York, in said County, personally appeared Charles M. Kerr, President of the above named The York Water Company, who, having been duly sworn, did depose and say that he was personally present at the execution of the above Indenture, and saw the common seal of said corporation of The York Water Company duly affixed thereto, and that the seal so affixed is the common and corporate seal of the said The York Water Company, and that the said Indenture was duly signed, sealed and delivered as and for the act and deed of the said corporation to the intent and purposes therein mentioned, and that the name of Charles M. Kerr as President of said corporation, in attestation of the due execution and delivery of the said Indenture, is of this daponent's own proper handwriting.

Charles M. Kerr

Sworn and subscribed before me the day and year aforesaid.

Sarah M. Shorb - Notary Public

Sarah M. Shorb
Notary Public
York County
York
Pennsylvania

My Commission expires February 15, 1941

I hereby certify that the precise Residence of the within grantee or grantees is, 25 South Duke St., York, Pa.

Frederick D. Gerber, Atty. for Grantee

Recorded June 30, 1939 - Herbert L. Smith, Recordar.

11262.

Hattie M. Hollerbush Est. :
to :
William H. Stock, ux :

$4.00
Fed.Rev.
6/30/39
R.S.F.

THIS INDENTURE, Made the 30th day of June in the year of our Lord one thousand nine hundred and Thirty Nine.

BETWEEN LILLIE WESTHAFER, widow, of the Borough of New Cumberland, Cumberland County, Pennsylvania; MARY E. HOOVER, single woman, ANNIE HALE and LEWIS HALE, her husband, of the Borough of North York; and, WILLIAM H. HOOVER and DAISY HOOVER, his wife, of the Township of Conewago, York County, Pennsylvania; grantors and parties of the first part, a n d, WILLIAM H. STOCK and GRACE M. STOCK, husband and wife,

as Louis B. Hafer.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that I, the said Helen M. Hafer for and in consideration of the premises and for and in consideration of the payment to me of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged do hereby assign, reassign, transfer, release and set over unto the said L. Bernard Hafer, sometimes known as Louis B. Hafer, and to his executors, administrators or assigns, all and every the interest in said trust fund which was assigned to me by virtue of the indenture dated October 26, 1938; and I do hereby authorize and empower the said Louis B. Hafer, his executors, administrators and assigns to take, receive and hold the same to and for his or their use and benefit, and to make all necessary receipts and acquittances therefor necessary. And I do by these presents intend to legally bind myself, my heirs, executors, administrators and assigns.

IN WITNESS WHEREOF, the said party of the first part has hereunto set her hand and seal the day and year first above written.

WITNESS: Harry C. Naill Helen M. Hafer (SEAL)

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK) On the 9th day of January, A. D. 1941, personally appeared before me, a Justice of the Peace, in and for said County and State, the above named Helen M. Hafer, and acknowledged the foregoing Assignment to be her act and deed, and desired that the same be recorded as such, according to law.

WITNESS my hand and official seal.

Harry C. Naill, J. P.

Harry C. Naill
Justice of the Peace
Hanover
York Co.
Pa.

My Commission Expires First Monday of Jan. 1944

Recorded January 10, 1941, Herbert L. Smith, Recorder

23395.

City of York :
to :
York Water Co. :

THIS AGREEMENT, made the 30th day of September in the year of our Lord one thousand nine hundred forty (1940),

BETWEEN The City of York, a municipal corporation created under the laws of the State of Pennsylvania, party of the first part, AND The York Water Company, a corporation organized under the laws of said State of Pennsylvania, having its principal office in the City of York, in the County of York and State of Pennsylvania, party of the second part, WITNESSETH:

That the party of the first part, for and in consideration of the sum of One ($1.00) Dollar to it in hand paid by the party of the second part, the receipt whereof is hereby acknowledged, has granted and conveyed, and by these presents does grant and convey, unto the said The York Water Company, its successors and assigns, the right, liberty and privilege to enter upon, ditch, lay, use and maintain its pipe or pipes in, along and under all that certain strip of land situate, lying and being in the Township of Manchester, in the County of York and State of Pennsylvania, having a uniform width of twenty (20) feet, and lying ten (10) feet on each side of the center line thereof, which center line is bounded and described as follows, to wit:

Beginning at a point in the eastern line of a public road leading from the Borough of North York to Loucks' Mill, where said public road bears eastwardly to the bridge crossing the Codorus Creek and commonly known as Loucks' Mill Bridge; thence across lands of the said The City of York South sixty-seven (67) degrees thirty (30) minutes East one hundred fifteen (115) feet to a point in or near the bank of the Codorus Creek.

With the right from time to time and at all times hereafter to renew, repair and relay such pipe or pipes laid or to be laid under the rights, liberties, and privileges herein

granted.

Nothing herein contained shall give to the party of the second part, its successors and assigns, the right to use the surface of the land over the said pipe or pipes except as may be required for the purposes of this agreement.

For and in consideration of the premises the party of the second part agrees to indemnify and save harmless the party of the first part, its successors and assigns, of and from all loss or damage incident to the construction, maintenance and repair of the said pipe or pipes.

The location of the right of way herein granted is more fully shown by draft or blueprint thereof hereto attached and made a part hereof.

IN WITNESS WHEREOF, the said parties have hereunto caused their corporate seals to be affixed, duly attested, the day and year first above written.

ATTEST: Henry Butler
City Clerk

Seal of York City Pennsylvania Incorporated Jan'y 11, 1887

THE CITY OF YORK
By Harry B. Anstine

ATTEST: Orier Hersh
Secretary

The York Water Company 1816

THE YORK WATER COMPANY
By W. P. O. Rosenmiller, President

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Be it remembered that on the 30th day of September, A. D. 1940, before me, the subscriber, a Notary Public of said State, residing in the City of York, in said County, personally appeared Harry B. Anstine, Mayor of the above named The City of York, who, having been duly sworn, did depose and say that he was personally present at the execution of the above Agreement, and saw the common seal of said municipal corporation of The City of York duly affixed thereto, and that the seal so affixed is the common and corporate seal of the said The City of York, and that the said Agreement was duly signed, sealed and delivered as and for the act and deed of the said municipal corporation to the intent and purposes therein mentioned, and that the name of Harry B. Anstine, as Mayor of said municipal corporation, in attestation of the due execution and delivery of the said Agreement, is of this deponent's own proper handwriting.

Harry B. Anstine

Sworn and subscribed before me the day and year aforesaid.

Nelson R. Cousler, Notary Public

Nelson R. Cousler Notary Public York York County Pa.

My commission expires at the end of the next session of the Senate

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

Be it remembered that on the 30th day of September, A. D. 1940, before me, the subscriber, a Notary Public of said State, residing in the City of York, in said County, personally appeared W. P. O. Rosenmiller, President of the above named The York Water Company, who, having been duly sworn did depose and saw that he was personally present at the execution of the above Agreement, and saw the common seal of said corporation of The York Water Company duly affixed thereto, and that the seal so affixed is the common and corporate seal of the said The York Water Company, and that the said Agreement was duly signed, sealed and delivered as and for the act and deed of the said corporation to the intent and purposes therein mentioned, and that the name of W. P. O. Rosenmiller, as President

Together with the right from time to time to install on said line such additional apparatus and equipment as Grantee may deem necessary and the right to remove said line or any part thereof.

Together also with the right to trim, cut or remove trees, underbrush and other obstructions that are within six (6) feet of any wire strung on said line; provided, however, any damage (other than for said trimming, cutting or removing) to the property of Grantors, caused by said Grantee in maintaining said line, shall be borne by said Grantee. Together also with the right of entry upon Grantors' said lands for all of the purposes aforesaid.

Reserving, however, to Grantors the right to cultivate the ground between the poles or other supporting structures of said line, provided that such use shall not interfere with or obstruct the rights herein granted.

The words "Grantors" and "Grantee" shall include their heirs, executors, administrators, successors and assigns, as the case may be.

IN WITNESS WHEREOF, Grantors have duly executed this indenture the day and year first above written.

WITNESS: Russell J. Baker (SEAL)

Lawrence E. Serff H V P Bessie E. Baker (SEAL)

COMMONWEALTH OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On this 11th day of August 1941, before me the subscriber, a Notary Public in and for the Commonwealth aforesaid, personally appeared the above named Russell J. Baker and Bessie E. Baker, his wife and acknowledged the foregoing instrument to be their act and deed and desired the same to be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Lawrence E. Serff, (Notary Public)

My Commission Expires May 2, 1943

Lawrence E. Serff Notary Public York Co. York Pa.

Recorded September 12, 1941 - Herbert L. Smith, Recorder.

30028.

Ray S. Noonan ux :
to :
City of York :

WHEREAS, Ray S. Noonan and Ella O. Noonan, his wife, are the owners of a certain tract of land in the City of York, Pennsylvania, and acting under the name of York Housing Corporation, have laid out said tract in residential lots to be known as "Park Village", a plan of which tract has been approved by the City Planning Commission, of York, Pennsylvania, on May 26, 1941 and which plan is recorded in the Office of the Recorder of Deeds of York County in Record Book 28-K, page 702; and,

WHEREAS, The City of York, Pennsylvania, is about to build a sanitary sewer, and in the future may have need of building a storm water sewer through said tract.

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Ray S. Noonan and Ella O. Noonan, his wife, in consideration of the sum of One ($1.00) Dollar and other good and valuable consideration paid to the undersigned, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right and privilege to construct, maintain, operate and use, in, on and across the land of the said Ray S. Noonan and Ella O. Noonan, his wife, a sanitary sewer and a storm water sewer, including manholes, laterals and other appurtenances, which sewers shall follow the rights of way described as follows:

1. The center line of said right of way begins at a point on the north side of the alley north of Roosevelt Avenue, said point being on the devision line between Lots #116 and 117, said point also being located 263 feet southeastwardly from the northeast corner of

the intersection of said alley north of Roosevelt Avenue and Maryland Avenue, and running thence over and along the dividing line between Lots #116 and 117 North 24° 04' 30" East 84.18 feet to a point on the south side of the circle forming the southern end of Irwin Court, said last mentioned point being on a line drawn South 3° 22' 00" West 40 feet from the center of said circle forming the southern end of Irwin Court.

The eastern and western lines of said right-of-way are hereby fixed and designated at 10 feet on each side of, and parallel with said above described center line.

2. The center line of said right of way begins at a point on the north side of Noonan Road, said point being located on the division line between Lots #54 and 55, said point also being located 302.54 feet northwestwardly as measured along the north line of Noonan Road from the northwest corner of the intersection of said Noonan Road with Pennsylvania Avenue and running thence over and along the dividing line between Lots #54, 55, 65 and 66, over and across Village Road, and over and across the dividing line between Lots #92, 93, 78 and 79 North 35° 12' 50" East 481.21 feet to a point on the south side of Wood Street, said last mentioned point being 284.68 feet westwardly as measured along the south line of Wood Street, from the southwest corner of the intersection of Wood Street with Pennsylvania Avenue.

The eastern and western lines of said right of way are hereby fixed and designated at 10 feet on each side of, and parallel with said above described center line.

3. The center line of said right of way begins at a point on the north side of Elm Terrace, said point being on the division line between Lots #32 and 33, said point also being located 227.23 feet northwestwardly as measured along the north line of said Elm Terrace from the northwest corner of the intersection of Pennsylvania Avenue and Elm Terrace, and running thence over and along the dividing line between Lots #32, 33, 41, and 42 North 35° 08' 30" East 201.44 feet to a point on the South side of Noonan Road, said last mentioned point being located 292.92 feet northwestwardly as measured along the south line of Noonan Road from the southwest corner of the intersection of Noonan Road with Pennsylvania Avenue.

The eastern and western lines of said right of way are hereby fixed and designated at 10 feet on each side of, and parallel with said above described center line.

together with the right and privilege to repair, remove and reconstruct the same, and together with the right and privilege of free and uninterrupted access thereto at any and all times, for each and every of said purposes, including workman, tools, machinery and appliances.

TO HAVE AND TO HOLD, the rights and privileges hereby granted unto the said City of York, Pennsylvania, its successors and assigns, to and for the only proper use of the City of York, Pennsylvania, its successors and assigns forever.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 11th day of September, 1941.

Edward J. Ward — Ray S. Noonan (SEAL)
Ella O. Noonan (SEAL)

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 11th day of September, 1941, before me, A Notary Public in and for said County and State, personally came the above named Ray S. Noonan and Ella O. Noonan, his wife, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

Pauline M. Miller, Notary Public
My Commission Expires September 7, 1942

Pauline M. Miller Notary Public York Co. York Pa.

Recorded September 12, 1941 - Herbert L. Smith, Recorder.

30029.

Maryland and Pennsylvania Railroad Company to City of York

THIS AGREEMENT, made on August 19th, 1941, by and between MARYLAND AND PENNSYLVANIA RAILROAD COMPANY, hereinafter called the "Railroad Company", party of the first part, and City of York, Pennsylvania, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, hereinafter called the "Licensee", party of the second part.

WHEREAS, the above named Licensee desires to construct and maintain certain reinforced concrete storm water sewer and appurtenances, across the right of way or property of the Railroad Company, beginning at the intersection of Glen Alley and Powder Alley, York, Pa., thence in a southwestwardly direction and parallel with East Philadelphia Street 150 feet to a point in the reinforced concrete tubes of the Works Projects Administration Poor House Run Project, as shown by plan hereinafter referred to, for purpose of conveying storm water drainage.

WITNESSETH, that the Railroad Company, in consideration of the covenants and agreements hereinafter mentioned, and of the advantages accruing to it as a result of the disposal of storm water under the plan of the Licensee for construction of the aforesaid sewer, hereby grants the Licensee insofar as the Railroad Company's present title shables it so to do, the right to construct, use, maintain and renew the said sewer at the said location upon and under the following terms and conditions, to wit:

1. The location of the said sewer shall be as set forth and shown on plan dated December 8, 1939, blue print of which is attached hereto and made a part hereof.

2. The said sewer shall be of such material and shall be constructed, maintained, renewed and operated as shall be satisfactory to and approved by the President of the Railroad Company, or his duly authorized agent; and the Licensee shall and will at all times during the continuance of this agreement keep the said sewer and appurtenances in good order and repair.

3. If the Licensee desires or is required, as herein provided, to revise, renew, add to or alter in any manner whatsoever the said sewer, it shall submit plans to the Railroad Company and procure the written approval of the Railroad Company thereto before any work or alterations of the structure is performed, and the terms and conditions of this contract with respect to the original construction shall apply thereto.

4. The Licensee shall at all times be obligated promptly to maintain, repair and renew said sewer; and shall in any event upon notice in writing from the Railroad Company

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals this 11th day of September, 1941.

Edward J. Ward — Ray S. Noonan (SEAL)
Ella O. Noonan (SEAL)

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 11th day of September, 1941, before me, A Notary Public in and for said County and State, personally came the above named Ray S. Noonan and Ella O. Noonan, his wife, and acknowledged the foregoing Instrument to be their act and deed, and desired the same to be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

Pauline M. Miller, Notary Public
My Commission Expires September 7, 1942

Pauline M. Miller Notary Public York Co. York Pa.

Recorded September 12, 1941 - Herbert L. Smith, Recorder.

30029.

Maryland and Pennsylvania Railroad Company to City of York

THIS AGREEMENT, made on August 19th, 1941, by and between MARYLAND AND PENNSYLVANIA RAILROAD COMPANY, hereinafter called the "Railroad Company", party of the first part, and City of York, Pennsylvania, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, hereinafter called the "Licensee", party of the second part.

WHEREAS, the above named Licensee desires to construct and maintain certain reinforced concrete storm water sewer and appurtenances, across the right of way or property of the Railroad Company, beginning at the intersection of Glen Alley and Powder Alley, York, Pa., thence in a southwestwardly direction and parallel with East Philadelphia Street 150 feet to a point in the reinforced concrete tubes of the Works Projects Administration Poor House Run Project, as shown by plan hereinafter referred to, for purpose of conveying storm water drainage.

WITNESSETH, that the Railroad Company, in consideration of the covenants and agreements hereinafter mentioned, and of the advantages accruing to it as a result of the disposal of storm water under the plan of the Licensee for construction of the aforesaid sewer, hereby grants the Licensee insofar as the Railroad Company's present title enables it so to do, the right to construct, use, maintain and renew the said sewer at the said location upon and under the following terms and conditions, to wit:

1. The location of the said sewer shall be as set forth and shown on plan dated December 8, 1939, blue print of which is attached hereto and made a part hereof.

2. The said sewer shall be of such material and shall be constructed, maintained, renewed and operated as shall be satisfactory to and approved by the President of the Railroad Company, or his duly authorized agent; and the Licensee shall and will at all times during the continuance of this agreement keep the said sewer and appurtenances in good order and repair.

3. If the Licensee desires or is required, as herein provided, to revise, renew, add to or alter in any manner whatsoever the said sewer, it shall submit plans to the Railroad Company and procure the written approval of the Railroad Company thereto before any work or alterations of the structure is performed, and the terms and conditions of this contract with respect to the original construction shall apply thereto.

4. The Licensee shall at all times be obligated promptly to maintain, repair and renew said sewer; and shall in any event upon notice in writing from the Railroad Company

requiring it so to do, promptly make such repairs and renewals thereto as may be required by the Railroad Company, or the Railroad Company, in case of an emergency and for the purpose of protecting and sageguarding its property, traffic, patrons, or employees from damage or injury, may with or without notice to the Licensee at any time make such repairs and renewals thereto and furnish such material therefor as it deems adequate and necessary.

5. All work herein contemplated, of whatever nature and for whatever purpose when done, shall be done and performed by the Licensee, and at such time and in such manner as may be approved by the President of the Railroad Company or his duly authorized agent; or, the Railroad Company may from time to time perform such emergency or other work made necessary to insure the safe and uninterrupted operation of the railroad of the Railroad Company.

6. The supervision of the work performed and the approval of the material used in construction, maintenance, repair, and renewals, alterations or adjustments of the facilities covered by this agreement shall be within the jurisdictional rights of the Railroad Company.

7. If the Railroad Company deems it advisable during the progress of any work of construction, maintenance, repairs and renewals, alterations, adjustments or removal of said sewer and appurtenances, to place watchmen or flagmen for the protection of the property owned or in possession or control of the Railroad Company or its employees, patrons or licensees, the Railroad Company shall have the right so to do, and the Licensee shall upon bill being rendered, pay or refund the cost and expense thereof, but failure of the said Railroad Company so to do, or failure or neglect of such watchmen or flagmen shall in no event be construed as in any manner or degree affecting any obligations of the Licensee as provided for in Articles 8 and 9 hereof.

8. In the event that the Railroad Company shall do and perform any of the work herein mentioned or contemplated, whether of construction, maintenance, repairs and renewals, alterations, adjustments or removal of the said sewer for and at the expense of the Licensee, said Licensee covenants and agrees to and shall indemnify, protect and save harmless the Railroad Company from all loss and damage to property, or injury to or death of persons growing out of or resulting from the performance of said work when not attributable to the fault, failure or negligence of the Railroad Company, except that if such loss, injury or damage shall be caused by the joint or concurring negligence of both parties hereto, the same shall be borne by them equally.

9. (a) It is understood between the parties hereto that the operations of the Railroad Company involve some risk and the Licensee, as part of the consideration for this grant, hereby releases and waives any right to ask for or demand payment for or on account of loss of or damage to the said sewer of the Licensee located on the property of the Rail-

road Company, including the loss of or interference with service thereof.

(t) Except as provided in Article 8 hereof, the Licensee also covenants and agrees to and shall at all times indemnify, protect and save harmless the Railroad Company from and against all cost or expense resulting from any and all losses, damages, (including personal injuries), suits, claims, demands, costs and charges which the said Railroad Company may directly or indirectly suffer, sustain or be subjected to by reason or on account of the construction, placement, use, maintenance, relocation or removal of the said sewer, on or from the premises of the Railroad Company, whether such losses and dameges be suffered or sustained

by the Railroad Company directly or by its employees, patrons or licensees, or be suffered or sustained by other persons or corporations, including the Licensee, its employees and agents, who may seek to hold the Railroad Company liable therefor.

10. All cost and expense, in connection with the installation, maintenance, repairs, renewals, alterations, adjustments or removal of said sewers, including removal, replacement and maintenance of tracks or other facilities of the Railroad Company or its tenants, shall be borne by the Licensee, and in the event of work being performed or materials being furnished by the Railroad Company under its stipulated right to perform work of installation, maintenance, repairs, relocation, and renewals, alterations, adjustments or removal under any section hereof, the cost so incurred, together with fifteen per centum (15%) for supervision and use of tools, shall be paid by the Licensee within thirty (30) days after presentation of bills.

11. The rights conferred hereby shall be the privilege of the Licensee only, and no assignment or transfer thereof shall be made, or other use permitted than the purpose stated in the preamble, without the consent and agreement in writing of the Railroad Company first being had and obtained.

12. This agreement is subject to the approval of the Pennsylvania Public Utility Commission and shall take effect as of the date of the approval of said Commission.

IN WITNESS WHEREOF, the said parties hereto have caused this agreement to be executed the day and year first hereinabove written.

ATTEST:

L. W. Davison,
Asst. Secretary

Maryland and Pennsylvania Railroad Co. Incorporated 1901

MARYLAND AND PENNSYLVANIA RAILROAD COMPANY

By O. H. Nance, President

ATTEST:

Henry Butler,
City Clerk

CITY OF YORK, PENNSYLVANIA

By Harry B. Anstine, Mayor

Seal of York City Pennsylvania Incorporated Jan'y. 11, 1887

STATE OF MARYLAND)
: SS:
CITY OF BALTIMORE)

On this 19th day of August A.D. 1941, before me, the subscriber, a Notary Public commissioned for Baltimore County, Maryland, personally appeared O. H. Nance, President of the said Maryland and Pennsylvania Railroad Company, who being duly affirmed according to law, deposes and says that he was personally present at the execution of the foregoing Instrument, and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as President of the said Corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned, and that the name of this deponent as President and of L. W. Davison as Assistant Secretary of the said corporation, subscribed to the said Instrument in attestation of its due execution and delivery are of their and each of their respective handwritings.

O. H. Nance

Affirmed and subscribed before me the day and year aforesaid.

WITNESS my hand and Notarial seal.

Edward J. Weber, Notary Public

My Commission Expires May 3, 1943

Edward J. Weber Notary Public Baltimore County Md.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 12th day of August, A.D. 1941, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Harry B. Anstine, Mayor of the said City of York, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as Mayor of the said municipal corporation as and for the act and deed of the said corporation, for the uses and purposes therein mentioned and that the name of this deponent as Mayor and of Henry Butler as City Clerk of the said municipal corporation, subscribed to the said Instrument in attestation of its due execution and delivery and of their and each of their respective handwritings.

Harry B. Anstine, Mayor

Affirmed and subscribed before me the day and year aforesaid.

Nelson R. Cousler, Notary Public

My Commission Expires Jan. 27, 1945

Nelson R. Cousler Notary Public York County York Pa.

I, William E. Crowley, trading as York Independent Oil Company, of York, Pennsylvania, being the lessee of a portion of the strip of land described in the within right of way agreement, for value received, hereby consent to the granting of the said right of way to the City of York and agree to subordinate my rights under my lease to the rights of the City of York under the within right of way agreement.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 8th day of August, A.D.1941.

Nelson R. Cousler

William E. Crowley (SEAL)
Trading as York Independent Oil Company.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 8th day of August, 1941, personally appeared before me, a Notary Public in and for said County and State, William E. Crowley, trading as York Independent Oil Company, and in due form of law acknowledged the foregoing agreement to be his act and deed to the end that the same might be recorded as such, according to law.

WITNESS my hand and notarial seal the day and year aforesaid.

Nelson R. Cousler, Notary Public

My Commission Expires Jan. 27, 1945

Nelson R. Cousler Notary Public York County York Pa.

Recorded September 12, 1941 -- Herbert L. Smith, Recorder.

30033.

Mary A. Paules Et : $3.65 Fed.Rev. 9/12/41 M.A.P.
to :
Kate Shellenberger :

THIS INDENTURE, Made the twenty-first day of July in the year of our Lord one thousand nine hundred and forty-one(1941).

BETWEEN Mary Ann Petrow and Stephen H. Petrow, her husband; Bertha C. Peeling and Horace K. Peeling, her husband; Urias S. Paules and Carrie

Affirmed and subscribed before me the day and year aforesaid.

WITNESS my hand and Notarial seal.

Edward J. Weber, Notary Public

My Commission Expires May 3, 1943

Edward J. Weber Notary Public Baltimore County Md.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 12th day of August, A.D. 1941, before me, the subscriber, a Notary Public commissioned for the City of York, York County, Pennsylvania, personally appeared Harry B. Anstine, Mayor of the said City of York, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing Instrument and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said Instrument was duly sealed and delivered by him as Mayor of the said municipal corporation as and for the act and deed of the said corporation, for the uses and purposes therein mentioned and that the name of this deponent as Mayor and of Henry Butler as City Clerk of the said municipal corporation, subscribed to the said Instrument in attestation of its due execution and delivery and of their and each of their respective handwritings.

Harry B. Anstine, Mayor

Affirmed and subscribed before me the day and year aforesaid.

Nelson R. Cousler, Notary Public

My Commission Expires Jan. 27, 1945

Nelson R. Cousler Notary Public York County York Pa.

I, William E. Crowley, trading as York Independent Oil Company, of York, Pennsylvania, being the lessee of a portion of the strip of land described in the within right of way agreement, for value received, hereby consent to the granting of the said right of way to the City of York and agree to subordinate my rights under my lease to the rights of the City of York under the within right of way agreement.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 8th day of August, A.D.1941.

Nelson R. Cousler

William E. Crowley (SEAL)
Trading as York Independent Oil Company.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 8th day of August, 1941, personally appeared before me, a Notary Public in and for said County and State, William E. Crowley, trading as York Independent Oil Company, and in due form of law acknowledged the foregoing agreement to be his act and deed to the end that the same might be recorded as such, according to law.

WITNESS my hand and notarial seal the day and year aforesaid.

Nelson R. Cousler, Notary Public

My Commission Expires Jan. 27, 1945

Nelson R. Cousler Notary Public York County York Pa.

Recorded September 12, 1941 - Herbert L. Smith, Recorder.

30033.

Mary A. Paules Est : $3.85 Fed.Rev. 9/12/41 W.A.P.
to :
Kate Shellenberger :

THIS INDENTURE, Made the twenty-first day of July in the year of our Lord one thousand nine hundred and forty-one(1941). BETWEEN Mary Ann Petrow and Stephen H. Petrow, her husband; Bertha C. Peeling and Horace K. Peeling, her husband; Urias S. Paules and Carrie

Little; thence along said house westward eighteen (18) inches; thence through the center of said double house northward to said West Market Street; thence along said West Market Street westward fifteen feet, more or less, to the place of beginning.

Containing in front on said West Market Street fifteen (15) feet, more or less, and extending in length or depth two hundred and thirty (230) feet, more or less, to said public alley. And having a width on said alley of sixteen (16) feet, more or less.

Being the same premises which Samuel W. Emig, single man, by his deed dated April 5, 1919, and recorded in the office of the Recorder of Deeds for York County, Pennsylvania, in Deed Book 21-B at page 106, granted and conveyed unto George E. Thomas. And the said George E. Thomas being so thereof seized of the hereinbefore described property died intestate on the 11th. day of February, 1934, leaving to survive him as his sole heirs at law, his widow, Amelia Burger Thomas and a son, Harry B. Thomas, to whom the title to the within described premises descended under the intestate laws of the Commonwealth of Pennsylvania, and the said widow, and son, together with the latters wife, are the grantors herein.

AND the said grantors, do hereby covenant that they will WARRANT generally the property hereby conveyed.

IN WITNESS WHEREOF, said grantors have hereunto set their hands and seals the day and year first above written.

Signed, Sealed and Delivered
in the Presence of
Charles F. Borgel
Lillian M. Newcomer

Amelia Burger Thomas (SEAL)
Harry B. Thomas (SEAL)
Ann I. Thomas (SEAL)

State of Pennsylvania)
:SS.
County of York,)

On this, the Seventh day of July 1945, before me, a Notary Public in and for said State and County, the undersigned officer, personally appeared Amelia Burger Thomas, widow, Harry B. Thomas and Ann I. Thomas, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

LILLIAN M. NEWCOMER NOTARY PUBLIC YORK COUNTY YORK, PA.

Lillian M. Newcomer
Notary Public
My Commission Expires
March 5, 1949.

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee is 728 E. Phila. St., York, Pa.

Ruth R. Winston

Recorded July 7, 1945 -- Elmer C. Myers, Recorder.

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33038

FANNIE M. FREE, al. :
TO :
THE CITY OF YORK, PA. :

KNOW ALL MEN BY THESE PRESENCE:

WHEREAS, Fannie M. Free and Mary F. Lenker acquired title to certain tract of land situate: partly in North York Borough, partly in Manchester Township and partly in West Manchester Township, York County, Pa., by deed of conveyance, executed, acknowledged and delivered on the 7th day of March, 1944 by Harry R. Lenker, Executor of the last Will of Harry A. Free, deceased, which deed is record

in the Office of the Recorder of Deeds of York County, Pa., in Deed Book 30 F; at Page 552 etc., which land is subject to the easement herein created.

WITNESSETH: That we, Fannie M. Free, Mary F. Lenker and Harry R. Lenker, her husband, in consideration of the sum of One ($1.00) Dollar, and certain other valuable considerations, the receipt whereof is hereby acknowledged, do hereby grant and convey unto The City of York, Pa., its successors and assigns, a certain easement consisting of the right to construct a sanitary sewer and laterals thereto beneath the surface of the soil of the premises hereinbefore mentioned and shall be located as follows:

Beginning at a point approximately twenty (20) feet northwardly from the center of Willis' Run, and fifteen (15) feet west of the eastern side of a ten (10) feet wide private alley, thence extending northwardly and parallel with said ten (10) feet wide alley two hundred and fifteen (215) feet to a point near the Prospect Hill cemetery stone wall, so that the City of York, Pa., its successors and assigns, may be enabled to construct and maintain a sanitary sewer and laterals thereto, including man-holes and other appurtenances, including the privilege of access thereto at all times for its maintenance, operation and use, and the repair and cleaning such sanitary sewer, man-holes and other appurtenances.

In witness whereof we have hereunto set our hands and seals this 30th day of June, 1945.

Witness Present:

Nancy Lenker — Fannie M. Free (SEAL)

Ethel Weigel — Mary F. Lenker (SEAL)

Harry R. Lenker (SEAL)

State of Pennsylvania)
:SS.
County of York,)

Personally appeared before me, a Notary Public in and for said County and State, Fanny M. Free, Mary F. Lenker, and Harry R. Lenker, who acknowledged this Indenture to be their all and deed to the end that the same may be recorded as such.

NELSON R. COUSLER NOTARY PUBLIC YORK COUNTY YORK, PA.

Nelson R. Cousler
Notary Public
My Commission Expires
January 27, 1949

Recorded July 7, 1945,
Elmer C. Myers, Recorder.

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33038,

CHARLES W. BAUMGARDNER, :
TO :
STEWART B. BANKERT, ux. :

$8.25 Fed.Rev. Jul-7-1945 C.W.B.

THIS DEED, MADE the 7th day of July in the year of our Lord one thousand nine hundred forty-five (1945), BETWEEN Charles W. Baumgardner (widower), of West Manheim Township, County of York, and State of Pennsylvania, Grantor, and Stewart B. Bankert and his wife, Ruth V. Bankert, of said West Manheim Township, County and State aforesaid, as tenants by entireties, Grantees:

WITNESSETH, that in consideration of Seven Thousand Five Hundred ($7,500.00) Dollars, in hand paid, the receipt whereof is hereby acknowledged, the said grantor does hereby grant and convey to the said grantees,

All the following described tract or lot of land, with the improvements thereon erected, situate, lying and being in West Manheim Township, County of York, and State of Pennsylvania, bounded and described as follows, to wit:-

BEGINNING at a point for a corner at the State Highway, at a fourteen feet wide alley

every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

IN WITNESS WHEREOF, said grantor has hereunto set his hand and seal the day and year first above written.

Signed, Sealed and Delivered in the Presence of John P. Wallace — C. H. Zeigler (SEAL)

COMMONWEALTH OF PENNSYLVANIA) :SS,
COUNTY OF YORK,)

On this Fifth day of August A. D. 1941, before me, a Justice of the Peace in and for said State & County came the above named Charles H. Zeigler and acknowledged the foregoing Deed to be his act and deed, and desired the same to be recorded as such.

WITNESS my hand and Official seal, the day and year aforesaid.

JOHN P. WALLACE JUSTICE OF THE PEACE YORK COUNTY WASHINGTON TWP PA.

John P. Wallace
Justice of the Peace
My Commission expires on the First Monday in January, 1946.

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee is East Berlin R. D. # 1,
October 20, 1945.

C. H. Zeigler

Recorded October 20, 1945,
Elmer C. Myers, Recorder.

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36130.

MOTOR FREIGHT EXPRESS, INC. :
TO :
CITY OF YORK, PENNSYLVANIA. :

A G R E E M E N T

entered into this 3rd day of Oct. 1945, between Motor Freight Express, Inc., a Pennsylvania Corporation, hereinafter called the first party, and the City of York, Pennsylvania, a municipality hereinafter called the second party.

In consideration of the premises, together with the promises made one to the other, it is mutually agreed as follows:

The first party does hereby grant and convey to the second party, its successors and assigns, an easement, consisting of a public water course over, under and upon its premises acquired by Deed of Conveyance, dated September 13, 1932, from Daniel O. Lebowitz, et ux, recorded in the Office of the Recorder of Deeds of York County, October 19, 1932, in Deed Book 25-J at Page 299, etc., which water course is defined, fixed and established in accordance with the following description, to wit:

The center line of said water course shall begin at a point on the Northern alley line of East Newton Alley, three hundred fifty seven (357) feet Eastwardly from the eastern curb line of Fulton Street, measured along the northern side of East Newton Alley; thence said center line extends in a northwardly direction, nine (9) feet from and parallel to the Motor Freight Express, Inc. eastern property line one hundred thirty one and sixty seven one hundredths (131.67) feet to the Southern street line of East King Street, said point is three hundred forty seven and thirty three one hundredths (347.33) feet from the southeast corner of Fulton Street and East King Street, measured along the southern side of East King Street. Said right of way is ten (10) feet in width and the Eastern and Western sides are five (5) feet distant

from and parallel to said above described center line.

The same to be subject to the flow of storm water, over and upon its surface from higher levels flowing from East Newton Alley, by a slope of not less than 0.5% to East King Street, a public highway in said City; under drains may be installed but the surface drainage must be maintained.

The first party agrees to save harmless the second party and will assume responsibility during its ownership of the premises herein made perpetually subject to said public water course, for or by reason of the flow of surface water over and under the public water course located and described herein, as well as after its discharge into East King Street or adjacent lands.

The second party does hereby agree,- in consideration of the grant of said water course by the first party, to establish by Ordinance, the grades of East Newton Alley, located in the 12th Ward of said City of York, between Fulton Street and Stanley Place, described as follows_

The center line grade begins at the Eastern curb line of Fulton Street with an elevation of three hundred eighty five and twenty four one hundredths (385.24) feet; thence by an ascending grade of two and fourteen one-hundredths (2.14%) per cent for a distance of forty (40) feet to a grade elevation of three hundred eighty six and one tenth (386.1) feet; thence by a descending grade of 0.505% for a distance of three hundred seventeen (317) feet to a grade elevation of three hundred eighty four and five tenths (384.5) feet, said point is the intersection of the center line of East Newton Alley and the center line of said public water course; thence by an ascending grade of 0.97% for a distance of ninety three (93) feet to a grade elevation of three hundred eighty five and four tenths (385.4) feet; thence by a descending grade to the Western curb line of Stanley Place to a grade elevation of three hundred eighty-five and five one hundredths (385.05) feet.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be signed by its President and Mayor and Attested by its Secretary and City Clerk, and have caused the respective corporate seals to be hereto affixed the day and year first above written.

ATTEST:

M. A. Ferris, Jr.
Secretary

ATTEST:

Henry Butler
City Clerk

MOTOR FREIGHT EXPRESS INCORPORATED OCT 6, 1930 PENNSYLVANIA

MOTOR FREIGHT EXPRESS, INC.

By S. C. Hoffberger
President

CITY OF YORK, PENNSYLVANIA

By John L. Snyder
Mayor

STATE OF MARYLAND :
:SS.
CITY OF BALTIMORE :

BE IT REMEMBERED that on the 3rd day of October A. D. 1945, before me, a Notary Public in and for said County and State, personally appeared Saul C. Hoffberger, President of the Motor Freight Express, Inc., of York, Pennsylvania, the above named, who being duly sworn deposes and says that he was personally present at the execution of the agreement and saw the common seal of the said Motor Freight Express, Inc., duly affixed thereto; that the seal so affixed is the common and corporate seal of the said Motor Freight Express, Inc.; that therefore said agreement was duly signed, sealed and delivered by, as and for the act and deed of the said Motor Freight Express, Inc. for the uses and purposes therein mentioned, and that the name of this deponent subscribed to the said agreement as President of the Motor Freight Express, Inc., in attestation of the due execution and delivery of the same, is in this deponent's own proper handwriting.

Affirmed and subscribed to before me this 3rd day of Oct. A.D. 1945.

Mildred Saltz
Notary Public

MILDRED SALTZ. NOTARY PUBLIC BALTIMORE

Saul C. Hoffberger
President

My commission expires, 5/5/47.

ledgment this Deed, before any person having authority by the laws of the Commonwealth of Pennsylvania, to take such acknowledgment, to the intent that the same may be duly recorded.

This Deed is made under and by virtue of a resolution of the Board of Directors of the grantor, duly passed at a regular meeting thereof held on the 10th day of April A. D. 1947, a full quorum being present, authorizing and directing the same to be made and done.

IN WITNESS WHEREOF, The said Corporation party of the first part, has caused its common and corporate seal to be affixed to these presents by the hand of its President, and the same to be duly attested by its Secretary. Dated the day and year first above written.

Attest:

Elmer E. Fink

Secy.

Elmwood Improvement Company Incorporated under laws of Pennsylvania 1918

ELMWOOD IMPROVEMENT COMPANY

By J. Edgar Small

President.

COMMONWEALTH OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

I hereby certify that on this 10th day of April, A. D. 1947, before me, the subscriber, a Notary Public, in and for the County of York, and Commonwealth of Pennsylvania, personally appeared J. Edgar Small, Esq. the attorney named in the foregoing Deed, and by virtue and in pursuance of the authority therein conferred upon him acknowledged the said Deed to be the act of the said Elmwood Improvement Company to the end that it may be recorded as such.

WITNESS my hand and Notarial Seal the day and year aforesaid.

Helen E. Brandt

Notary Public

My commission expires January 7, 1951

Helen E. Brandt Notary Public York County York, Pa.

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee is 32 West King Street, York, Pennsylvania (4th Ward).

April 10, 1947

K. F. Ralph Rochow
Attorney for Grantee

Recorded April 10, 1947 - Elmer C. Myers, Recorder.

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20131.

Pauline Lipsitz Lavetan :

To :

City of York :

THIS AGREEMENT Made this 18th day of March, 1947, between Pauline Lipsitz Lavetan, widow, of the City of York, Pennsylvania, party of the first part, and City of York, Pennsylvania, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, party of the second part:

WHEREAS, the party of the second part desired to construct and maintain a certain concrete storm water sewer and appurtenances across property of the party of the first part situate on the south side of and known as No. 630 Linden Avenue in the City of York, Pennsylvania, for the purpose of conveying storm water drainage from Linden Avenue to Bruce Alley;

NOW, THEREFORE, In consideration of the covenants and agreements hereinafter mentioned and of the advantages accruing to both parties hereto as a result of the disposal of storm water under the plan of the City of York for construction of the aforesaid sewer, the parties hereto agree as follows:

1. The party of the first part hereby grants to the City of York the right to construct, use, maintain and renew the said storm water sewer across and upon the properby of the party of the first part.

2. The right of way for the said sewer shall be six feet in width, the eastern and western sides thereof being three feet distant from and parallel with the following described center line:

Beginning at a point on the southern street line of Linden Avenue, said point of beginning being located two hundred sixty nine and five tenths (269.5) feet westwardly from the southwest corner of Linden Avenue and West Street as measured on the southern street line of Linden Avenue; thence through lands of Pauline Lipsitz Lavetan, the party of the first part hereof, by a true meridian course of south 54° 49' 57" east one hundred sixty (160) feet to a point on the northern side of Bruce Alley, said point being located two hundred sixty-nine and five tenths (269.5) feet westwardly from the northwest corner of Bruce Alley and West Street as measured along the northern alley line of Bruce Alley.

A blue print of said right of way is hereto attached and made a part hereof.

3. The party of the second part shall at all times be obligated to maintain, repair and renew said sewer at its own expense, and the party of the first part shall be under no obligation whatsoever for the maintenance, repair or renewal of said sewer.

4. The party of the second part agrees to repair all damages done to the property of the party of the first part by reason of said construction, use, operation, maintenance and renewal of said sewer and appurtenances, including the grading and re-sodding of the lawn, the replacement of any shrubbery destroyed, and any and all other work of any kind necessary to place the property of the party of the first part in as good condition as it was prior to the construction, use, operation and maintenance or renewal of said sewer and appurtenances by the party of the second part.

5. The rights conveyed hereby shall be for the privilege and benefit of the party of the second part only, and no assignment or transfer thereof shall be made or other use permitted other than the purpose stated in the preamble without the consent and agreement in writing of the party of the first part.

6. It is the intention of the parties hereto to be legally bound by this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed the day and year first above written.

Witness: William Luria

Pauline Lipsitz Lavetan (SEAL)

Attest:

Henry Butler
City Clerk

Seal of York City, Pennsylvania Incorporated July 11, 1897

CITY OF YORK
BY: John L. Snyder
Mayor

STATE OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

On this 18th day of March, 1947, before me, a notary public in and for said county and state, personally appeared the above named Pauline Lipsitz Lavetan, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within agreement, and acknowledged that she executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

Hilda V. Bose
Notary Public
York, York County, Pa.

Hilda V. Bose
Notary Public
My commission expires March 6, 1949

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that we,the undersigned, being all the heirs and parties of interest entitled to share the proceeds of the estate of the said Mabel P. Wagner, deceased do this day acknowledge that we have this day had and received of and from De Etta L. Howard, Katherine J. Layton (now Fry) and J. Charles Wagner, administrators aforesaid, the sum set opposite our respective names, as follows:

De Etta L. Howard	$8,704.26
Katherine J. Layton (now Fry)	8,704.27
J. Charles Wagner	8,704.27

in full payment and satisfaction of all share or shares, part or purparts, sum or sums of money to which we are entitled in the estate of Mabel P. Wagner, deceased.

AND we do hereby remise, release, quit-claim and forever discharge the said De Etta L. Howard, Katherine J. Layton (now Fry) and J. Charles Wagner, administrators as aforesaid, of and from all actions or causes of action, suits, accounts, claims and demands whatsoever for or by reason of the death of Mabel P. Wagner or for or by reason of any other matter, cause or thing from the beginning of the world to the date of these presents.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 22nd day of April A. D. 1947.

De Etta L. Howard (SEAL)
Katherine J. Fry (SEAL)
J. Charles Wagner (SEAL)

State of Pennsylvania)
(ss.
County of York)

On this, the 22nd day of April, A. D. 1947, before me, a Notary Public in and for said County and State, came the above named DeTTA L. HOWARD,KATHERINE J. LAYTON (now FRY) AND J. CHARLES WAGNER, and acknowledged the foregoing Release to ___ their act and deed and desired the same to be recorded as such_

Witness my hand and notarial seal, the day and year aforesaid.

Muriel Ruth Williams
Notary Public
York County
York,Pa.

Muriel Ruth Williams
Notary Public
My commission expires: May 1, 1948

Recorded April 22, 1947 - Elmer C. Myers, Recorder.

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20598.//

C. Kauffman Miller ux :
To :
City of York :

THIS AGREEMENT, MADE THIS 14th day of April, 1947, between C. Kauffman Miller and Beulah M. Miller, his wife, of the City of York, Pa., parties of the first part, and City of York, Pennsylvania, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, party of the second part, WITNESSETH:

WHEREAS, it has become necessary in the public interest for the party of the second part to construct a certain sanitary sewer with laterals and appurtenances on a portion of South Street and Edgar Street in the Tenth Ward of the City of York, Pa. across property of the parties of the first part;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter mentioned and also in consideration of the sum of One ($1.00) Dollar in hand paid by the party of the second part to the parties of the first part, the receipt whereof is hereby acknowledged, the

parties hereto agrees as follows:

1. The parties of the first part hereby grant to the party of the second part the right to construct, maintain and renew the said sanitary sewer with laterals and appurtenances across and upon the property of the parties of the first part.

2. The right of way for said sewer shall be twenty (20) feet wide, the outside boundaries thereof being ten (10) feet distant from and parallel with the following described center lines:

a. Beginning at the center line intersection of South Street and Edgar Street; thence running westwardly along the center line of South Street seventy five (75) feet more or less to the western end of lands of C. Kauffman Miller.

b. Beginning at the center line intersection of South Street and Edgar Street; thence in a northwardly direction along the center line of Edgar Street three hundred feet (300) to a point in the intersection of Liberty Street.

3. The party of the second part shall at all times be obligated to maintain, repair and renew said sewer at its own expense, and the parties of the first part shall be under no obligation whatsoever for the maintenance, repair or renewal of said sewer.

4. The party of the second part agrees to repair all damages done to the property of the parties of the first part by reason of said construction, use, operation, maintenance and renewal of said sanitary sewer, laterals and appurtenances.

5. It is the intention of the parties hereto to be legally bound by this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed the day and year first above written.

Witness:

Richard E. Kohler — C. Kauffman Miller (SEAL)

Charlotte L. Rupp — Beulah M. Miller (SEAL)

Attest: Henry Butler
City Clerk

CITY OF YORK
BY: John L. Snyder
Mayor

STATE OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

On this 14th day of April, 1947, before me, a notary public in and for said county and state, personally appeared the above named C. Kauffman Miller and Beulah M. Miller, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within agreement, and acknowledged that they executed the same for the purpose therein contained.

In Witness Whereof, I have hereunto set my hand and notarial seal.

Charlotte L. Rupp Notary Public York County York, Pa.

Mrs. Charlotte L. Rupp
Notary Public
My commission expires 4/1/51

STATE OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

On this 14th day of April, 1947, before me, the subscriber, a notary public in and for said county and state, personally appeared John L. Snyder, Mayor of said City of York, who being duly affirmed according to law, says that he was personally present at the execution of the foregoing instrument and saw the common or corporate seal of the said City of York duly affixed

thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said instrument was duly sealed and delivered by him as Mayor of the said municipal corporation as and for the act and deed of the said corporation for the uses and purposes therein mentioned and that the name of this deponent as Mayor and of Henry Butler as City Clerk of the said municipal corporation subscribed to the said instrument in attestation of its due execution and delivery is in their and each of their respective hand writings.

John L. Snyder

Mayor

Affirmed and subscribed before me the day and year aforesaid.

Hilda V. Bose

Notary Public

My comm. expires March 6, 1949

Hilda V. Bose Notary Public York, York County, Pa.

Recorded April 22, 1947 - Elmer C. Myers, Recorder.

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20599.

DeEtta L. Howard vr :

To :

Melvin L. Howard ux :

$22.00 Fed.Rev D.L.H. Apr.22 1947

THIS DEED, MADE THE 21st dey of April in the year of our Lord one thousand nine hundred forty-seven (1947).

BETWEEN DeETTA L. HOWARD and MELVIN L. HOWARD, her husband, G. WINFIELD FRY and KATHERINE J. FRY, his wife, both of the City of York, York County, Pennsylvania, and J. CHARLES WAGNER AND RUTH S. WAGNER, his wife, of Havertown, Delaware County, Pennsylvania, parties of the first part, Grantors, AND MELVIN L. HOWARD and DeETTA L. HOWARD, his wife, as tenants by entiretiee, of the City of York, York County, Pennsylvania, parties of the second part, Grantees:

WITNESSETH, that in consideration of One ($1.00) Dollars, in hand paid, the receipt whereof is hereby acknowledged, the said grantors do hereby grant and convey to the said grantees,

ALL that certain lot, piece or parcel of ground, situate, lying and being on the south side of West Market Street in the Ninth Ward of the City of York, York County, Pennsylvania, and known and numbered as 540 West Market Street. Adjoining said West Market Street on the north; West Mason Alley on the south; property now or formerly of Florence M. Immell on the east and property now or formerly of Lucinda Krout on the west. Fronting on said West Market Street fifty-one (51) feet and three (3) inches and extending southwardly of equal width throughout two hundred and thirty (230) feet, more or less, to said West Mason Alley. The eastern line of said lot hereby conveyed is the eastern side of the eastern wall of the house now erected upon the same.

It being the same premises which Joseph R. Strawbridge, executor of the last will and testament of Jeremiah Z. Hildebrand, deceased, by his deed dated June 2, 1915, and recorded in the office of the Recorder of Deeds in and for York County, Pennsylvania, in Deed Book 19-V, page 348, granted and conveyed unto Mabel P. Wagner, who died intestate on December 23, 1938, leaving to survive her as her sole immediate heirs at law, DeEtta L. Howard, a niece, Katherine J. Fry (formerly Layton), a niece, and J.Charles Wagner, also known as Charles Wagner, a nephew, to whom the same did descend under and by virtue of the intestate laws of the Commonwealth of Pennsylvania and who joined with their respective spouses are the grantors herein.

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee_ is the Borough of Shrewsbury, York County, Pennsylvania.

January 17, 1950.

Spencer D. Wareheim

Attorney for Grantees.

Recorded January 17, 1950 - Fred O. Strine, Recorder

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518.

HARRY R. LENKER UX :

TO :

CITY OF YORK :

THIS AGREEMENT, made the 16__ day of January A. D. 1950,

BETWEEN Harry R. Lenker and Mary F. Lenker, his wife, parties of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part.

WHEREAS, Parkway Boulevard a seventy (70) foot wide thoroughfare, adopted by City Ordinance, crosses property of the parties of the first part, located in the thirteenth Ward in the City of York, Pennsylvania.

NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. The party of the second part agrees to fill, grade and pave Parkway Boulevard where it crosses the property of the parties of the first part, located in the thirteenth Ward, in the City of York, Pennsylvania, which Parkway Boulevard is located on the seventy (70) foot wide strip of land marked in yellow on the plan hereto attached.

2. The party of the second part agrees to fill, grade and pave Front Street a fifty (50) foot wide throughfare which intersects Parkway Boulevard on said property of the parties of the first part and is located on the fifty (50) foot wide strip of land marked in yellow on the plan hereto attached, which is made a part hereof.

3. The party of the second part agrees to alter the Channel of Willis Run and enclose the flow of one of its branches in a sixty (60) inch reinforced concrete pipe to be built as shown on plan hereto attached.

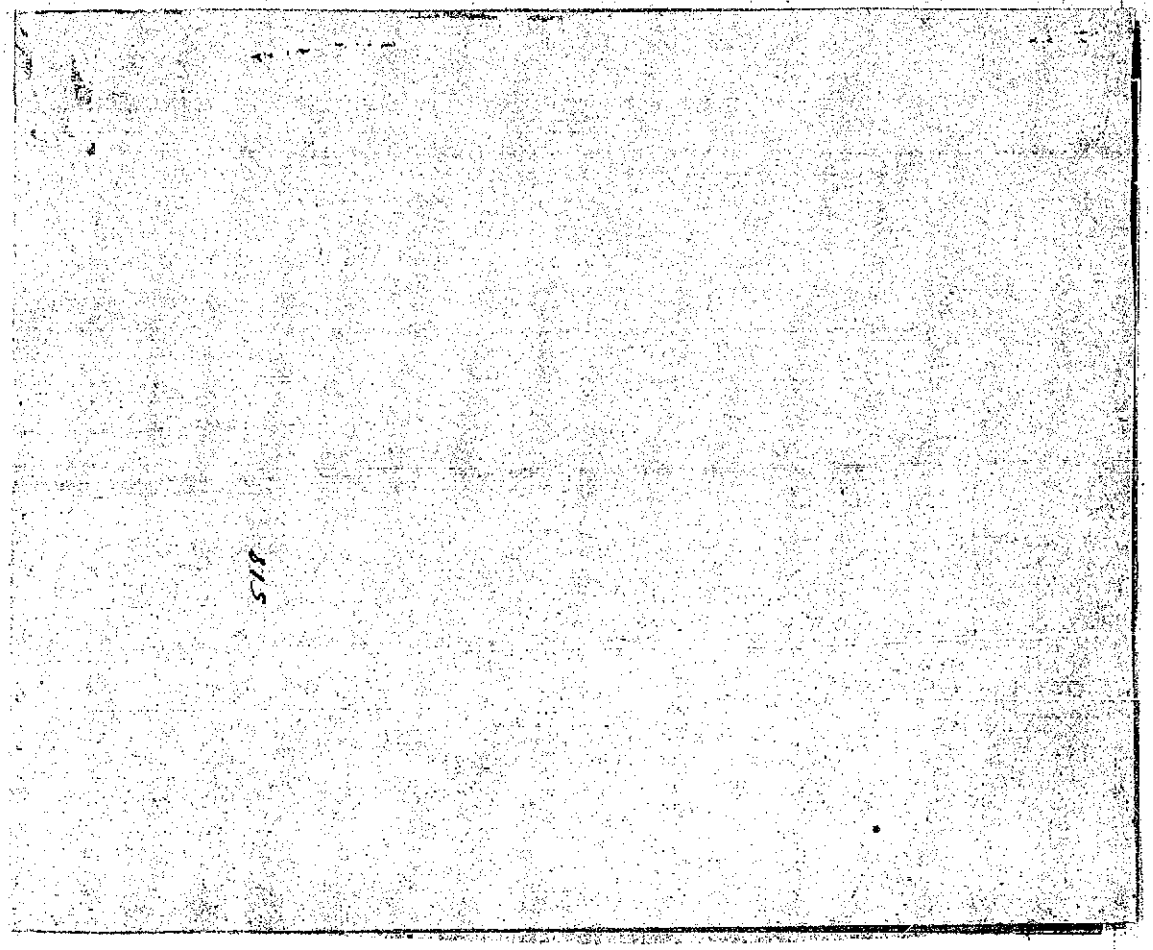
4. The party of the second part agrees to fill the low lying ground adjacent to the Boulevard and Front Street, owned by the parties of the first part, to the level of these said streets with material that will be suitable to support buildings, and promises that this work will be done within five (5) years after the date of this agreement.

5. The party of the second part agrees to relocate or elevate any existing structures whose present position does not meet or conform with the improvement and are located upon the property of the parties of the first part.

6. The parties of the first part do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the perpetual right and easement to construct and maintain on and across the lands of the said Harry R. Lenker and Mary F. Lenker, his wife, Parkway Boulevard, Front Street and Willis Run Channel, a sixty (60) inch sewer, including manholes, inlets and two high tension electric transmission lines of the Metropolitan Edison Company who now enjoy a paid right of way for said transmission lines over this said property and within the lines of Boulevard marked in yellow on plan hereto attached and together with the right and privilege of free and uninterrupted access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

Harry R. Lenker and Mary F. Lenker, in consideration of the advantages to them from the agreements herein contained, and intending to be legally Bound, do hereby waive and release to the City of York, Pa., all claims to damages that may arise to them from the agreements herein contained.



IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first aforesaid.

ATTEST:

Wm. E. Weigle City Engr.

Wilbur G. Baker
City Clerk

SEAL OF YORK CITY JAN. 30, 1887 PENNSYLVANIA

CITY OF YORK

Harry R. Lenker (SEAL)

Mary F. Lenker (SEAL)

F. S. Bentzel (SEAL)

State of Pennsylvania)
: ss:
County of York)

On this 16__ day of January, 1950, before me, a Notary Public in and for said County and State, personally appeared Harry R. Lenker & Mary F. Lenker known to me (or satisfactorily proven) to be the persons whose names are subscribed to the foregoing instrument, and ack-

Swartz and Lillian E. Swartz, his wife, this deed is recorded in the office of the Recorder of York Co. in Deed Book 23 U, Page 325.

the said grantors, do hereby covenant and agree to and with the said grantees, that they, the grantors their heirs, executors and administrators, shall and will GENERALLY warrant and forever defend, the herein above described premises, with the hereditaments and appurtenances, unto the said grantees their heirs and assigns, against the said grantors, and against every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

IN WITNESS WHEREOF, said grantors have hereunto set their hands and seals the date and year first above written.

Sealed and Delivered in the

Presence of — Horace Swartz (SEAL)

W. L. Seigman — Lillian E. Swartz (SEAL)

State of Pennsylvania)
: ss:
County of York)

On this Eleventh day of July A. Dl., 1950 before me, A Justice of the Peace, in and for said County and State came the above named Horace Swartz and Lillian E. Swartz, his wife and acknowledged the foregoing Deed to be their act and deed, and dealred the same to be recorded as such.

WITNESS my hand and official seal the day and year aforesaid.

W. L. SEIGMAN JUSTICE OF THE PEACE GLEN ROCK, YORK CO. PA.

W. L. Seigman
Justice of the Peece
My commission expires
1st Mon. in
Jan. 1954

I hereby certify that the precise Residence of the within grentee or grantees is Rail Road, Pa. P. O. Box 68.

Name Fred O. Strine

Recorded July 19, 1950 - Fred O. Strine, Recorder

--- O ---

7700.

MARIE A. GARNER :

TO :

CITY OP YORK :

Thia Agreement made the 18th day of July A. D. 1950, between Marie A. Garner, party of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part.

WHEREAS, the party of the first part is the owner of property located on the East side of North Hartman Street in the City of York, Pennsylvania; and,

WHEREAS, surface water from a twenty (20) feet wide alley has no outlet, save across property of party of the first part,

WHEREAS, it is necessary to construct a storm sewer to eliminate a bad drainage condition,

NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. The party of the second part agrees to build a twelve (12) inch terra cotta pipe storm sewer across the yard of the party of the first part, and located as shown on ten (10) feet wide strip or land marked in yellow on plan attached hereto, and made a part hereof. Said pipe shall be laid with a minimum earth cover of six (6) inches and the grass sod shall be

restored to its original condition.

2. The party of the first part does by these presents, grant, bargain, sell, release, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to build, construct and maintain, on and across the property of the said Marie A. Garner, a twelve (12) inch terra cotta pipe storm sewer which is located on the ten (10) feet strip of land marked in yellow on the plan hereto attached, and made a part hereof, together with the right and privilege to repair, renew and reconstruct said storm sewer, and together with the right and privilege of free and uninterruptad access to said strip of land at any and all times, for each and every of said purposes of construction, maintenance, repair, renewal and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first aforesaid.

ATTEST:

Ruth H. Young

Wilbur G. Baker

SEAL OF YORK CITY

CITY OF YORK

By Marie A. Garner (SEAL)

F. S. Bentzel (SEAL)

STATE OF PENNSYLVANIA)
: ss:
COUNTY OF YORK)

On this 18_ day of July, 1950, before me, a Notary Public in and for said County and State, personally appeared Marie A. Garner, known to me (or Satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument, and acknowledged that she executed the same for the purposes therein contained.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK, PA.

Valentine R. Emig

Notary Public

My commiasion expires

January 27, 1951

STATE OF PENNSYLVANIA)
: ss:
COUNTY OF YORK)

On this 18_ day of July, 1950, before me, a Notary Public in and for said County and State, personally appeared Felix S. Bentzel, who acknowledged himself to be the Mayor of the City of York, and that he as such Mayor, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the City of York by himself as Mayor.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK, PA.

Valentine R. Emig

Notary Public

My commission expires

January 27, 1951

Exhibit A. Next Page.

Being part of the same tract of land which Mary M. Pfaltzgraff, Widow, of Manchester Township, York County, Pennsylvania, granted and conveyed unto Edgar E. Stambaugh and Marie M. Stambaugh, his wife, of Manchester Township, York County, Pennsylvania, and recorded in the Recorder's office in and for York County in Deed Book 32-I, page 600 on the 29th day of August 1946.

AND, the said grantors, do hereby covenant and agree to and with the said grantees, that they, the grantors their heirs, executors and administrators, shall and will warrant generally and forever defend the herein above described premises, with the hereditaments and appurtenances, unto the said grantees their heirs and assigns, against the said grantors, and against every other person lawfully claiming or who shall hereafter claim the same or any part thereof.

IN WITNESS WHEREOF, said grantors have hereunto set their hands and seals the day and year first above written.

Signed, Sealed and Delivered
in the Presence of

Chas. P. Ludwig — Edgar E. Stambaugh (SEAL)

Mary R. Peters — Marie M. Stambaugh (SEAL)

State of Pennsylvania)
: ss.
County of York)

On this, the 19th day of July, 1950, before me, a Notary Public from said County and State the undersigned officer, personally appeared Edgar E. Stambaugh and Marie M. Stambaugh, his wife known to me (or satisfactorily proven) to be the persons whose names subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

MARY R. PETERS NOTARY PUBLIC YORK COUNTY SPRING GARDEN TWP., PA.

Mary R. Peters (SEAL)
Notary Public
My commission expires
End of Next Senate

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee_ is R. D. #4, York, Pa.

7/19 1950

J. Richard Budding
Attorney for Grantees

Recorded July 19, 1950 - Fred O. Strine, Recorder

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7701.

GEORGE S. FREED AL :

TO :

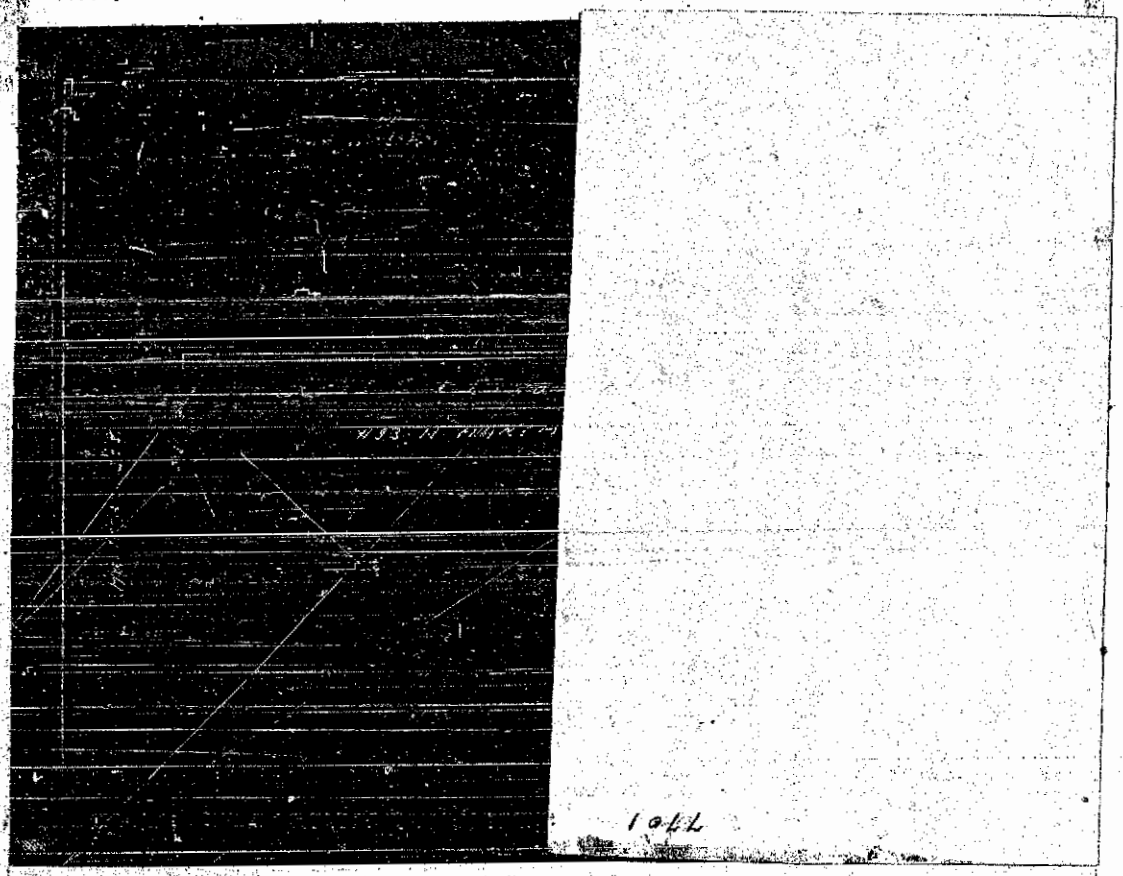
CITY OF YORK :

This Agreement made the 18_ day of July A. D. 1950, between George S. Freed and Emma J. Freed, his sister, parties of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part.

WHEREAS, the parties of the first part are the owners of property located on the East side of North Hartman Street in the City of York, Pennsylvania; and,

WHEREAS, surface water from a twenty (20) feet wide alley has no outlet, save across property of parties of the first part,

WHEREAS, it is necessary to construct a storm sewer to eliminate a bad drainage condition,



NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. The party of the second part agrees to build a twelve (12) inch terra cotta pipe storm sewer across the yard of the parties of the first part, and located as shown on ten (10) feet wide strip of land marked in yellow on plan attached hereto and made a part hereof. Said pipe shall be laid with a minimum earth cover of six (6) inches and the grass sod shall be restored to its original condition.

2. The parties of the first part do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the right, liberty and privilege to build, construct and maintain, on and across the property of the said George S. and Emma J. Freed, his sister, a twelve (12) inch terra cotta pipe storm sewer which is located on the ten (10) feet strip of land marked in yellow on the plan hereto attached, and made a part hereof, together with the right and privilege of free and uninterrupted access to said strip of land at any and all times, for each and every of said purposes of construction, maintenance, repair, renewel and reconstruction, including with workmen, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York its successors and assigns, to and for the only proper use of the City of York its successors and assigns, forever.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first aforesaid.

ATTEST:

Ira W. Bohn

Ira W. Bohn
Wilbur G. Baker

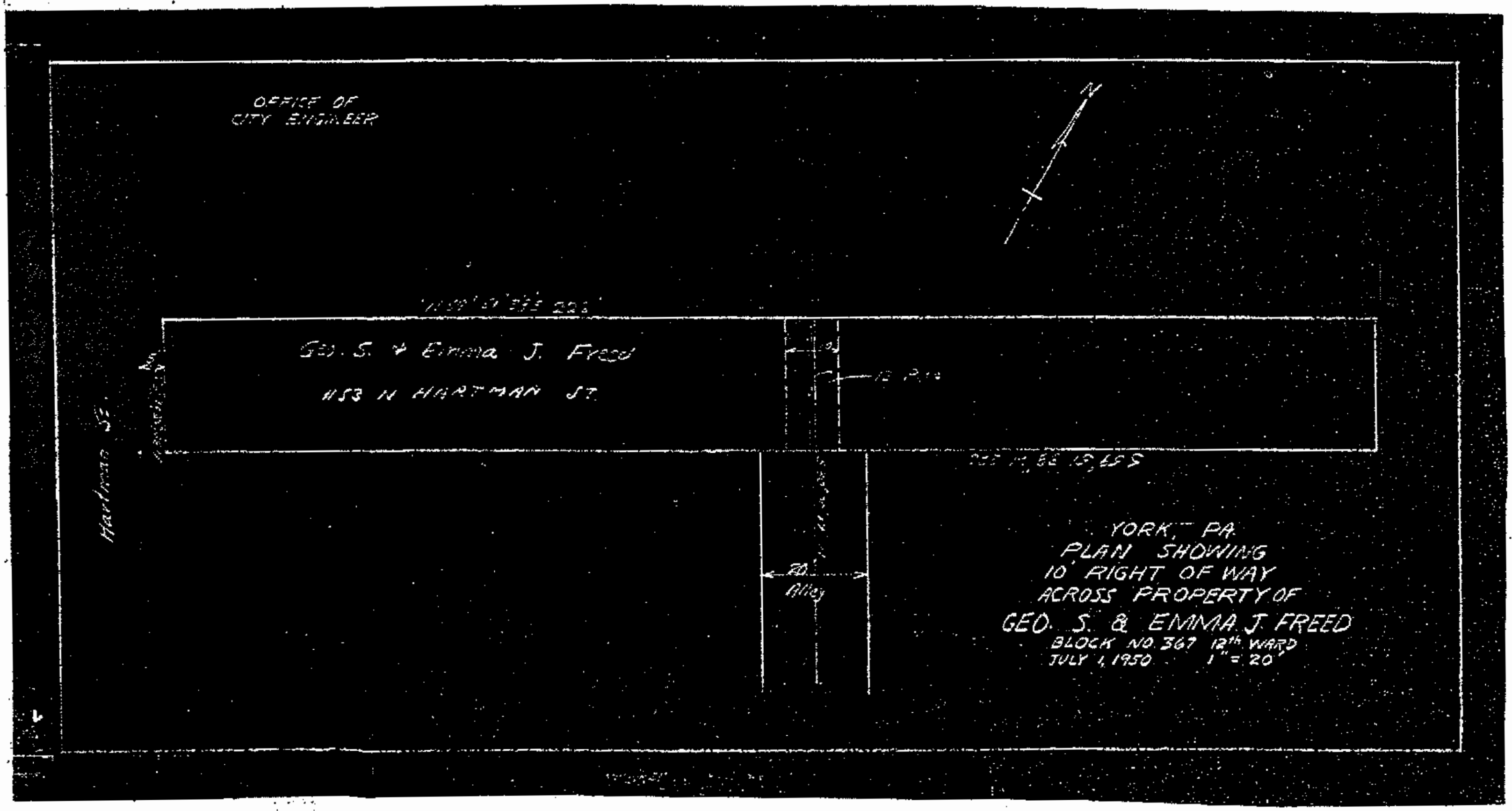
SEAL OF YORK CITY

CITY OF YORK

By George S. Freed (SEAL)
Emma J. Freed (SEAL)
Felix S. Bentzel (SEAL)

536A

WHEREAS, it is necessary to construct a storm sewer to eliminate a bad drainage condition,



NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. The party of the second part agrees to build a twelve (12) inch terra cotta pipe storm sewer across the yard of the parties of the first part, and located as shown on ten (10) feet wide strip of land [illegible]ed in yellow on plan attached hereto and made a p[illegible]ereof. Said pipe shall be laid with a minimum earth cover of six (6) inches and the grass s[illegible] shall be

STATE OF PENNSYLVANIA)
: ss:
COUNTY OF YORK)

On this 18_ day of July, 1950, before me, a Notary Public in and for said County and State, personally appeared George S. and Emma J. Freed, known to me (or Satisfactorily proven) to be the persons whose names are subscribed to the foregoing instrument, and acknowledged that they executed the same for the purposes therein contained.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK, PA.

Valentine R. Emig
Notary Public
My commission expires
January 27, 1951

STATE OF PENNSYLVANIA)
: ss:
COUNTY OF YORK)

On this 18_ day of July, 1950, before me, a Notary Public in and for said County and State, personally appeared Felix S. Bentzel, who acknowledged himself to be theMayor of the City of York, and that he as such Mayor, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the City of York by himself as Mayor.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK, PA.

Valentine R. Emig
Notary Public
My commission expires
January 27, 1951

Recorded July 19, 1950 - Fred O. Strine, Recorder

--- O ---

7704.

HUGH McCANN :
TO :
EMMA GLESSNER :

THIS INDENTURE, MADE THE Twenty sixth day of March in the year of our Lord one thousand eight hundred and eighty nine_

BETWEEN Hugh McCann of York City, York County and State of Pennsylvania of the first part and Emma Glessner of the City_ County and State aforesaid of the second part:

WITNESSETH: That the said party of the first part, for and in consideration of the sum of Ninety four and 69/100 ($94.69) Dollars, lawful money of the United States of America, well and truly paid by the said party of the second part to the said party of the first part, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged has granted, bargained, sold, aliened, enfeoffed, released, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, enfeoff, release, convey and confirm, unto the said party of the second part her heirs and assigns,

ALL that certain part of a lot of ground situate in the 8th Ward York City, Penna. Bounded and limited as follows to wit: On the West by property of Joseph Lustig on the East by property of Frank Stock on the North by property of John B. Dorian and abutting on the South by property of said Emma Glessner (second party hereto) containing a width or breadth of twenty one feet and one inch (21'.1) and a length or depth of twenty five feet and six inches to a three foot and three inch private alley. Being part of the rear portion of the same lot or piece of ground, which Hannah Shields, Administratrix of the estate of Matthew Dunn deceased did sell and convey by virtue of an order duly granted by the Orphans Court of York County on the 7th day of January A. D. 1857 and which sale was duly confirmed by the said Orphans

and sixty-five (165) feet to a point in said road; thence along other property now or formerly of James E. Holtzapple et ux, of which this was formerly a part, south twenty-nine (29) degrees eleven (11) minutes west two hundred (200) feet to an iron pin; thence by the same north sixty-three (63) degrees fifty-three (53) minutes west two hundred ninety-four (294) feet to the point and place of BEGINNING. Containing one (1) acre and twenty-seven and eight tenths (27.8) perches, neat measure.

to hold the same, with the appurtenances, unto the said James E. Holtzapple and Grace K. Holtzapple, his wife, their heirs, executors, administrators, and assigns, forever freed, exonerated and discharged of and from the lien of said Mortgage, and every part thereof. Provided always, nevertheless, that nothing herein contained shall in anywise affect, alter or diminish the lien or incumbrance of the aforesaid Mortgage on the remaining part of said mortgaged premises, or the remedies at law for recovering thereout or against the said James E. Holtzapple and Grace K. Holtzapple, his wife, their heirs, executors, administrators, or assigns, the principal sum, with interest, secured by said Mortgage.

IN WITNESS WHEREOF, they have hereunto set their hands and seals this 29th day of July A. D. 1950.

Witnesses present

_____ William H. Holtzapple (SEAL)

_____ Rachel L. Holtzapple (SEAL)

STATE OF PENNSYLVANIA)
: ss.
COUNTY OF YORK)

On this, the 29th day of July, 1950, before me a Notary Public in and for said State and County, the undersigned officer, personally appeared William H. Holtzapple and Rachel L. Holtzapple, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

RONALD W. DESENBERG NOTARY PUBLIC YORK COUNTY BORO. OF WEST YORK PA.

Ronald W. Desenberg (SEAL)

Notary Public

My commission expires

At the end of the next Session of the Senate

Recorded August 1, 1950

Fred O. Strine, Recorder

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8166.

HEISTAND FREY)
TO :
YORK CITY)

THIS AGREEMENT, MADE THIS 31 day of July A. D. 1950, BETWEEN Heistand Frey, party of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part;

WHEREAS, the party of the second part desires to construct and maintain certain concrete storm water and sanitary sewers across property of the party of the first part, situate on the west side of Fulton Street, south of King Street, in block 393, 12th ward, York, Pennsylvania, for the purpose of conveying storm water and sanitary sewage from southeastern section of City of York to the Poor House Run Reinforced Concrete Culvert;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter mentioned and of the advantages accruing to both parties hereto as a result of the disposal of storm

water under the plan of the City of York, for construction of the aforesaid sewer, the parties hereto agree as follows:

1. The party of the first part hereby grants to the City of York, the right to construct, use, maintain and renew the said storm water sewer across and upon the property of the party of the first part.

2. The right-of-way for the said sewer shall be sixteen feet in width, the northern and southern sides thereof being eight feet distant from and parallel with the following described center line:

BEGINNING at a point on the western street line of Fulton Street, said point of beginning being located one hundred fifty-two feet (152.0') south from the southwest intersection of the five foot (5.0') lines of East King Street and Fulton Street as measured on the western five foot (5.0') line of Fulton Street; thence through lands of Heistand Frey, the party of the first part hereof, by a true meridian course of South fifty-eight degrees seven minutes fifty-eight seconds West (S 58° 07' 58"W) one hundred twenty-five and five tenths feet (125.5') to a point on the eastern right-of-way line of the M. & P. R. R. Co., said point being located one hundred forty-seven and forty-three one hundredths feet (147.43') south from the southern five foot (5.0') line of East King Street as measured along the center line of the Poor House Run Reinforced Concrete Culvert.

A blue print of said right-of-way is hereto attached and made a part hereof.

3. The party of the second part shall at all times be obligated to maintain, repair and renew said sewers at its own expense, and the party of the first part shall be under no obligation whatsoever, for the maintenance, repair or renewal of said sewer.

4. The party of the second part agrees to repair all damages done to the property of the party of the first part by reason of said construction, use, operation, maintenance and renewal of said sewers, including the repair of an existing coal trestle, coal bins, fences, and any and all other work of any kind necessary to place the property of the party of the first part in as good condition as it was prior to the construction, use, operation and maintenance or renewal of said sewers by the party of the second part.

5. The rights conveyed hereby shall be for the privilege and benefit of the party of the second part only, and no assignment or transfer thereof shall be made or other use permitted other than the purpose stated in the preamble without the consent and agreement in writing of the party of the first part.

6. It is the intention of the parties hereto to be legally bound by this agreement.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed the day and year first above written.

Witness:

Bruce E. Dale

SEAL OF YORK CITY PENNSYLVANIA INCORPORATED 1887

S. Heistand Frey (SEAL)

Attest:

Wilbur G. Baker
City Clerk

CITY OF YORK

By F. S. Bentzel
Mayor

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 31 day of July 1950, before me, a notary public in and for said county and state, personally appeared the above named Heistand Frey, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within agreement, and acknowledged that he executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

GRANT M. WALLACE JUSTICE OF THE PEACE LOWER WINDSOR TWP. YORK CO. PA.

Grant M. Wallace (SEAL)
Justice of the Peace
Commission Expires:
1st Monday of January 1952.

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee_ is Windsor, Pa., R.D. #1.

November 4th, 1948.

Grant M. Wallace
For Grantees.

Recorded November 3, 1950 - Fred O. Strine, Recorder

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11926.

DAVID Y. HERBST :
TO :
CITY OF YORK :

August 25, 1950.

THIS AGREEMENT, made this 26th day of October, 1950, A.D., between David Y. Herbst, party of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part;

WHEREAS, the party of the second part, desires to construct and maintain certain sanitary sewers across property of the party of the first part, situate on the West side of North George Street at Willis Road, in the 13th Ward, York, Pennsylvania, for the purpose of conveying sanitary sewage from the Northwestern section of the City of York to the York Sewage Treatment Works;

NOW, THEREFORE, in consideration of the covenants and agreement hereinafter mentioned and of the advantages accruing to both parties hereto as a result of the disposal of sanitary sewage under the plan of the City of York, for construction of the aforesaid sewer, the parties hereto agree as follows:

1. The party of the first part hereby grants to the City of York, the right to construct, use, maintain, and renew the said sanitary sewer across and upon the property of the party of the first part.

2. The right-of-way for the said sewer shall be fifteen feet (15') in width and parallel to the south channel line of new Willis Run Channel as shown outlined in red upon plan attached hereto and made a part hereof.

3. The party of the second part, shall at all times, be obligated to maintain, repair and renew said sewer at its own expense, and the party of the first part shall be under no obligation whatsoever, for the maintenance, repair or renewal of said sewer.

4. The party of the second part agrees to repair all damages done to the property of the party of the first part by reason of said construction, use, operation, maintenance and renewal of said sewer and do all other work of any kind necessary to place the property of the party of the first part in as good condition as it was prior to the construction, use, operation and maintenance or renewal of said sewer by the party of the second part.

5. The party of the first part may use the surface of the land, which is the subject matter of the rights herein granted to the party of the second part, as a roadway or driveway or parking area for vehicles, without in any way interfering with the rights herein granted.

6. The rights conveyed hereby shall be for the privilege and benefit of the party of the second part only, and no assignment or transfer thereof shall be made or other use permitted other than the purposes stated in the preamble, without the consent and agreement in writing or the party of the first part.

7. It is the intention of the parties hereto to be legally bound by this agreement.

8. The party of the first part, intending to be legally bound, does hereby waive and release to the City of York, Pennsylvania, all claims to damages that may arise to him from the agreements herein contained.

9. The party of the second part shall have the right of ingress, egress and regress to the land, subject to the right of way herein granted, to construct, maintain and repair said sewers.

IN WITNESS WHEREOF, the parties hereto and hereunto set their hands and seals the day and year first aforesaid.

ATTEST:

Wilbur G. Baker
City Clerk

Rita M. Noll

John Carl Foster, Jr.

CITY OF YORK

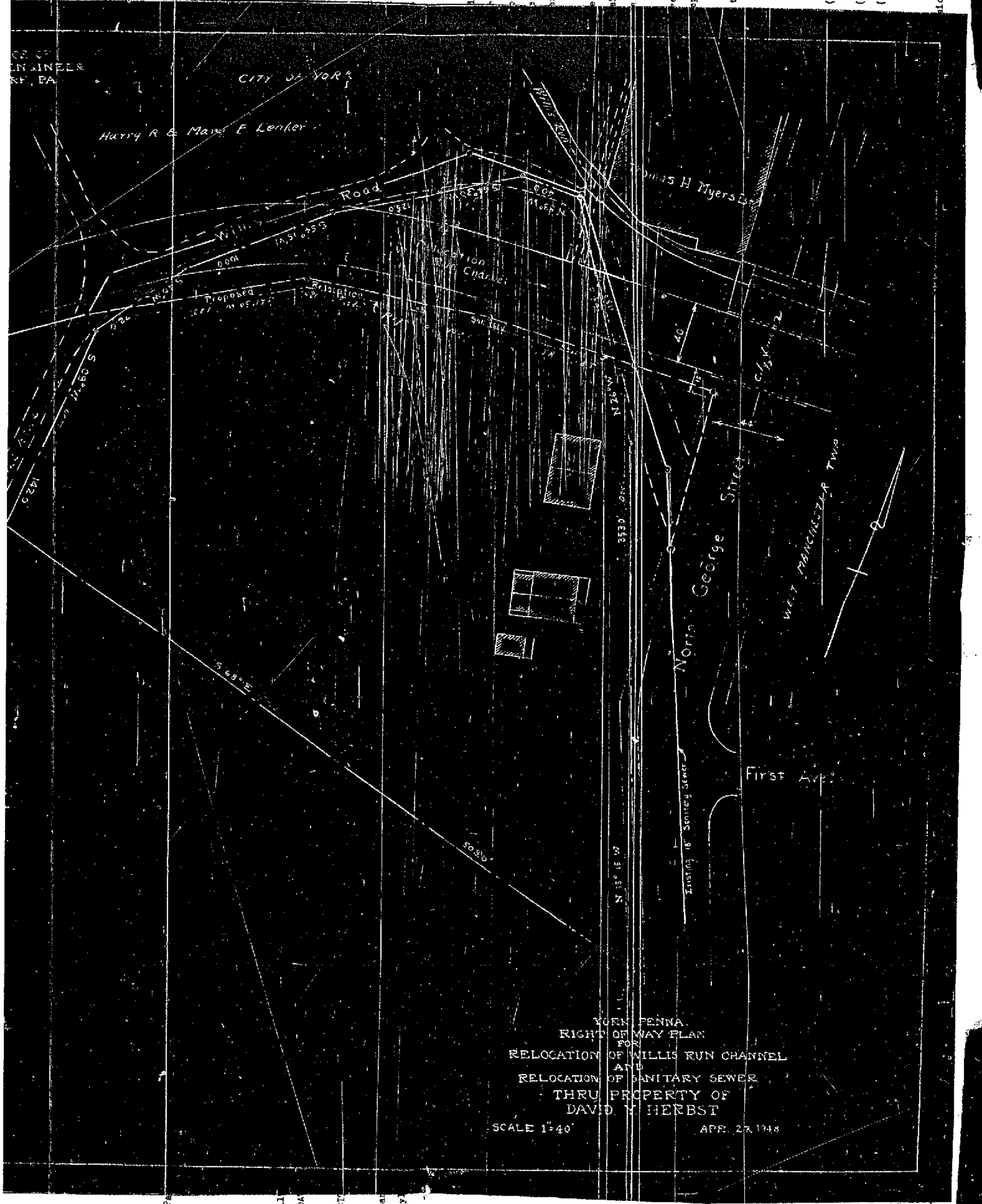
Felix S. Bentzel (SEAL)
Mayor

Fred O. Schiding (SEAL)

David Y. Herbst (SEAL)

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this, 26th day of October, 1950, before me, a Notary Public in and for said County


CITY OF YORK
Harry R & Mary E Lenker
Thomas H Myers Est.
Willis Road
Relocation
Channel
Proposed
Relocation
40'
North George Street
WEST MANCHESTER TWP.
First Ave.
Existing 18" Sanitary Sewer
S 68° E
YORK, PENNA.
RIGHT OF WAY PLAN
FOR
RELOCATION OF WILLIS RUN CHANNEL
AND
RELOCATION OF SANITARY SEWER
THRU PROPERTY OF
DAVID V. HERBST
SCALE 1"=40'
APR. 27, 1948

and State, personally appeared David Y. Herbst, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

HELEN E. BRANDT NOTARY PUBLIC YORK COUNTY YORK PA.

Helen E. Brandt
Notary Public
My Commission Expires:
January 7, 1951.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this, 3rd day of November, 1950, before me, a Notary Public in and for said County and State, personally appeared Felix S. Bentzel, who acknowledged himself to be the Mayor of the City of York, and that he as such Mayor, being authorized to do, executed the foregoing instrument for the purposes therein contained by signing the name of the City of York by himself as Mayor.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK PA.

Valentine R. Emig
Notary Public
My Commission Expires:
January 27, 1951

Recorded November 4, 1950 - Fred O. Strine, Recorder

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11893.

THOMAS L. WAGNER UX :
TO :
HARVEY J. ROSS UX :

$.55 FED.REV E.C.N. 11/3/50

THIS DEED, MADE THE 28th day of October in the year of our Lord one thousand nine hundred fifty (1950).

BETWEEN THOMAS L. WAGNER and ANNA B. WAGNER, his wife, of the Borough of Mechanicsburg, County of Cumberland and State of Pennsylvania, Grantors, and HARVEY J. ROSS and NELLIE P. ROSS, his wife, of the Township of Fairview, County of York and State of Pennsylvania, Grantees:

WITNESSETH, that in consideration of the sum of One ($1.00) Dollar and other good and valuable considerations in hand paid, the receipt whereof is hereby acknowledged, the said grantors do hereby grant and convey to the said grantees,

ALL that certain piece or tract of land situate in the Township of Fairview, County of York and State of Pennsylvania, more particularly bounded and described as follows, to wit:-

BEGINNING at a point in the center of Danner Road, commonly called Springer's Lane, said point being one thousand and twelve (1,012) feet and ten (10) inches in a southeasterly direction from the stone abutment of a bridge across said Danner Road and marked by a wooden stake; thence in a southwesterly direction along land of Thomas L. Wagner, about to be conveyed to Milton H. Schell and Florence V. Schell, his wife, eight hundred twenty nine (829) feet, more or less, to a stake at land of Thompson Martin; thence in a southeasterly direction along land of said Thompson Martin ten (10) feet to a point or stake; thence in an easterly direction along lands now of Harvey J. Ross and Nellie P. Ross, his wife, eight hundred twenty nine (829) feet to a point in the center of said Danner Road; thence in a northwesterly direction along the center of said Danner Road ten (10) feet to a point, the place of BEGINNING.

13185.

PENN DAIRIES INCORPORATED :

TO :

CITY OF YORK :

THIS AGREEMENT, made the 4th day of December, A. D. 1950, between Penn Dairies Incorporated, parties of the first part, and City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part.

WHEREAS, Parkway Boulevard a seventy (70) foot wide thoroughfare, adopted by City Ordinance, crosses property of the parties of the first part, located in the thirteenth Ward in the City of York, Pennsylvania.

WHEREAS, the party of the first part will be benefitted by this desirable improvement,

NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:-

1. The party of the second part agrees to fill, grade and pave Parkway Boulevard where it crosses the property of the party of the first part, located in the thirteenth Ward, in the City of York, Pennsylvania, which Parkway Boulevard is located on the seventy (70) foot wide strip of land marked in yellow on the plan hereto attached which is made a part hereof.

2. The party of the second part agrees to furnish and lay a six (6) inch cast iron pipe (Class A with lead joints) force main from an existing pump house to the south side of new Willis Run Channel where it joins the existing force main of the party of the first part. Said force main to be laid in Boulevard right of way from pump house to private alley west of Thomas Myers Estate, thence in alley southwardly to New Channel of Willis Run and beneath same to connect with existing main on south side of new Willis Run Channal.

3. The parties of the first part do by these presents grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the perpetual right and easement to construct and maintain on and across the lands of the said Penn Dairies Incorporated, Parkway Boulevard, within the lines marked in yellow on plan hereto attached and together with the right and privilege of free and uninterrupted access to said strip of land at

any and all times for each and every of said purposes of construction, maintenance, repair, renewal and reconstruction, including with workman, tools, machinery and appliances.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

Penn Dairies Incorporated, in consideration of the advantages to them from the agreements herein contained, and intending to be legally bound, do hereby waive and release to the City of York, Pennsylvania, all claims to damages that may arise to them from the agreements herein contained.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day year first aforesaid.

SEAL OF YORK CITY PENNSYLVANIA

PENN DAIRIES INC. INCORPORATED 1929 LANCASTER PA.

ATTEST:

Wilbur G. Baker

L. B. Althouse, Secretary

CITY OF YORK

Felix S. Bentzel, Mayor (SEAL)

Penn Dairies, Inc. (SEAL)

E. L. Garber, President (SEAL)

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF LANCASTER)

On this, 4th day of December 1950, before me, a Notary Public in and for said County and State, personally appeared E. L. Gerber, who acknowledged himself to be the President of Penn Dairies Incorporated, and that he as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing thename of Penn Dairies Incorporated by himself as President.

MARGARET N. FULMER NOTARY PUBLIC LANCASTER COUNTY LANCASTER, PA.

Margaret N. Fulmer
Notary Public
My Commission Expires:
January 7, 1951.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 4th day of December 1950, before me, a Notary Public in and for said County and State, personally appeared Felix S. Bentzel, who acknowledged himself to be the Mayor of the City of York, and that he as such Mayor, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the City of York by himself as Mayor.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK PA.

Valentine R. Emig
Notary Public
My Commission Expires:
1/27/1950

Recorded December 11, 1950 - Fred O. Strine, Recorder

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13183.

WILLARD B. BLEVINS UX : FED.REV. $5.50 W.B.B. 12/11/50
TO :
WOODROW W. SNYDER :

THIS DEED, MADE THE ninth day of December, in the year of our Lord one thousand nine hundred fifty.

BETWEEN Willard B. Blevins and Edith M. Blevins, his wife, of the Borough of Red Lion,

In witness whereof, I have hereunto set my hand and official seal.

VIRGINIA R. HOFFMAN NOTARY PUBLIC COOK COUNTY ILL.

Virginia R. Hoffman
Notary Public
My Commission Expires:
June 13, 1954.

(Attach Clerk's Certificate)

STATE OF ILLINOIS)
: ss.
COOK COUNTY)

I, Richard J. Daley, County Clerk of the County of Cook, Do Hereby Certify that I am the lawful custodian of the official records of Notaries Public of said County, and as such officer am duly authorized to issue certificates of magistracy, that Virginia R. Hoffman, whose name is subscribed to the proof of acknowledgment of the annexed instrument in writing, was, at the time of taking such proof of acknowledgment, a Notary Public in and for Cook County, duly commissioned, sworn and acting as such and authorized to take acknowledgments and proofs of deeds or conveyances of lands, tenements or hereditaments, in said State of Illinois, and to administer oaths; all of which appears from the records and files in my office; that I am well acquainted with the handwriting of said Notary and verily believe that the signature to the said proof of acknowledgment is genuine; and, further, that the annexed instrument is executed and acknowledged according to the laws of the State of Illinois.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the County of Cook at my office in the City of Chicago, in the said County, this 5th day of December, 1950.

Richard J. Daley, County Clerk.

SEAL OF THE COUNTY OF COOK MARCH 1831 ILLINOIS

Recorded December 9, 1950 - Fred O. Strine, Recorder

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13186.

PENN DAIRIES INCORPORATED :
TO :
CITY OF YORK :

THIS AGREEMENT, made the 4th day of December, 1950, A.D., between Penn Dairies Incorporated, parties of the first part, and the City of York, a municipal corporation of the Commonwealth of Pennsylvania, party of the second part.

WHEREAS, Parkway Boulevard, a seventy (70) foot wide thoroughfare, adopted by City Ordinance, corsses property of the parties of the first part, located in the thirteenth Ward in the City of York, Pennsylvania.

WHERRAS, North Beaver Street, a fifty (50) foot wide street, is to be opened between Parkway Boulevard and Prospect Hill Cemetery, across property of the parties of the first part, located in the thirteenth Ward in the City of York, Pennsylvania.

WHEREAS, the parties of the first part will be benefited by this desirable improvement.

NOW, THEREFORE, in consideration of the premises, the parties hereto agree as follows:-

1. The party of the second part agrees to fill, grade and pave Parkway Boulevard and North Beaver Street where they cross the property of the party of the first part, located in the thirteenth Ward, in the City of York, Pennsylvania, which Parkway Boulevard and North Beaver Street are located on the seventy (70) foot and fifty (50) foot wide strips of land

marked in yellow on the plan hereto attached which is made a part hereof.

2. The party of the second part agrees to excavate to a minimum depth of thirty six (36) inches below crest of existing Penn Dairies dam, excepting rock located north of pump house, the entire area east of Beaver Street, north of Parkway Boulevard, west of the pump house and south of the existing run channel, in order to create a storage basin having a capacity of approximately two hundred ninety thousand (290,000) gallons.

3. The party of the second part agrees to furnish and lay a sixty (60) inch reinforced concrete culvert beneath Beaver Street to carry the normal and flood flow in the run tributary to Willis Run, as shown on plan attached hereto and made a part hereof.

4. The parties of the first part do by these presents, grant, bargain, sell, release, convey and confirm unto the City of York, its successors and assigns, the perpetual right and easement to construct and maintain the said culvert on and across the lands of the said Penn Dairies Incorporated, Parkway Boulevard and North Beaver Street, within the lines marked in yellow on plan hereto attached and made a part hereof, together with the right and privilege of free and uninterruped access to said strip of land at any and all times for each and every of said purposes of construction, maintenance, repair, renewal and reconstruction of said culvert, including with workmen, tools, machinery and appliances, and party of the first part

waives and releases to party of the second part, all claims and damages for or on account of said easement or acts done in exercising it.

TO HAVE AND TO HOLD the rights and privileges hereby granted unto the City of York, its successors and assigns, to and for the only proper use of the City of York, its successors and assigns, forever.

Penn Dairies Incorporated, in consideration of the advantages to them from the agreements herein contained, and intending to be legally bound, do hereby waive and release to the City of York, Pennsylvania, all claims to damages that may arise to them from the agreements herein contained.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day year first aforesaid.

ATTEST:

Wilbur G. Baker

L. B. Althouse, Secretary

PENN DAIRIES INC INCORPORATED 1929 LANCASTER, PA.

SEAL OF YORK CITY PENNSYLVANIA

CITY OF YORK

Felix S. Bentzel, Mayor (SEAL)

Penn Dairies, Inc. (SEAL)

E. L. Garber, President (SEAL)

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF LANCASTER)

On this 4th day of December, 1950, before me, a Notary Public in and for said County and State, personally appeared E. L. Garber, who acknowledged himself to be the President of Penn Dairies Incorporated, and that he as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of Penn Dairies Incorporated by himself as President.

MARGARET N. FULMER NOTARY PUBLIC LANCASTER COUNTY LANCASTER PA.

Margaret N. Fulmer
Notary Public
My Commission Expires:
January 7, 1951.

STATE OF PENNSYLVANIA)
: SS:
COUNTY OF YORK)

On this 4th day of December, 1950, before me, a Notary Public in and for said County and State, personally appeared Felix S. Bentzel, who acknowledged himself to be the Mayor of the City of York, and that he as such Mayor, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the City of York by himself as Mayor.

In Witness Whereof, I hereunto set my hand and official seal.

VALENTINE R. EMIG NOTARY PUBLIC YORK COUNTY YORK PA.

Valentine R. Emig
Notary Public
My Commission Expires:
1/27/51.

Recorded December 11, 1950 - Fred O. Strine, Recorder

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In witness whereof said grantor has hereunto set his hand and seal the day and year first above written.

Sealed and Delivered
in the presence of
Edward A. Michael

Charles K. Arendorff (Seal)

State of Pennsylvania } ss:
County of York }

On this 10th day of March A.D. 1915 before me a Notary Public in and for County and State personally came the above named Charles K. Arendorff (Widower) and acknowledged the foregoing Deed to be his act and deed and desired the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

10 Cent Stamp C. A. M. March 10, 1915

Edward A. Michael Notary Public York Pa.

Edward A. Michael
Notary Public

Recorded Mar. 11, 1915
August Lonneman Jr. Recorder

13290 Comm of Penna
To
City of York.

Commonwealth of Pennsylvania
Department of Health.
To the Mayor and City Council
York, York County, Pennsylvania.

On February twenty fourth nineteen hundred and fifteen the city of York, York County, Pennsylvania, made application for approval of Plans for works for the partial treatment of the sewage of the city.

Whereupon the Governor, Attorney General and Commissioner of Health after considering the matter have unanimously agreed that the proposed works for the partial treatment of the sewage

from the city will subserve the general interests of the public health.

Therefore, I, Samuel G. Dixon, Commissioner of Health of the Commonwealth of Pennsylvania do hereby and herein approve the plans for the works for the partial treatment of the sewage of the city and issue a permit therefor subject to the following conditions.

First: All the relevant conditions and stipulations of the previous permits pertaining to the sewer system in the City shall remain and be in full force and effect.

Second: Prior to construction of the works the city shall submit for approval plans for the addition of the chemical germicide to the effluent from the Imhoff tanks and for the construction of a sedimentation basin to provide a contact period of not less than fifteen minutes duration between the disinfectant and the effluent from the tanks. The purpose of the chemical germicide is to destroy the dangerous bacteria contained in the sewage and the addition of this germicide at the influent end of the tanks does not offer a guarantee based upon successful experience that this object will be satisfactorily accomplished. If the City desires to maintain the apparatus in service for the addition of the germicide at the influent end of the tanks as an experimental procedure the State will offer no objection provided that the other construction herein required has been completed and is ready for use.

Third: The city shall on or before December thirty first nineteen hundred and fifteen have constructed and placed in operation the outfall sewer, pumping station and sewage treatment works herein approved for sedimentation of the

sewage and treatment with a germicide which will eliminate the construction of Imhoff tanks, sludge beds and the installation of apparatus for the introduction of a germicide. Upon completion of the works the city shall file in the office of the State Department of Health detail plans of the work as actually constructed.

Fourth: All roof and storm waters shall be excluded from the sewers hereafter to be built. The sewers shall be used for sanitary purposes only and the city shall whenever so required exclude from the system all storm and roof waters which may be admitted to the sewer system at the present time. The purpose of this step is to reduce the amount of liquid carried to the sewage treatment works to a practicable minimum and its proper fulfillment by the city will result in a decreased maintenance cost of the treatment works. It shall not however be construed to mean a permit to discharge sanitary sewage from existing or contemplated private or municipal sewers untreated into State waters nor exclude industrial wastes as may be properly cared for in the sewage treatment works.

Fifth: No pathogenic material from any laboratory shall be discharged into the sewer system. The proper authorities shall cause these wastes to be destroyed on the premises.

Sixth: Upon completion of the sewage treatment works and the beginning of use of the sanitary sewer system, the city shall by means of suitable ordinance or regulation bring about as rapidly as practicable the disconnection of all properties from existing public or private sewer systems discharging into State waters and a connection of the same with the comprehensive

municipal system to the end that all discharge of sewage into State waters within the municipal territory of the city of York, excepting through the treatment works hereinafter created.

Seventh: The sewage treatment works shall be operated for at least one year after completion under the responsible supervision and direction of the expert who designed it or some one equally competent to perform this service during which time the city officials will have opportunity to become thoroughly versed in the proper operation and maintenance of the plant.

Eighth: Daily records of the operation of the sewer system and sewer treatment works shall be kept in such manner as satisfactory to the State Department of Health and copies thereof shall be filed weekly in the office of the said Department. The city shall make bacteriological determinations, simple chemical and mechanical tests of the sewage and of the effluent from the tanks at intervals sufficient to determine the efficiency with which the plant is operating and copies of the results of such tests shall be incorporated in the weekly reports of operation herein required.

Ninth: Upon completion of the treatment works herein approved, the State Department of Health shall be notified in order that a representative may be present at the initial test of the plant should it after necessary or desirable.

Tenth: This permit to discharge partially treated sewage into waters of the State shall cease on December thirty first nineteen hundred and seventeen or before which time the city shall have constructed and placed in operation the remaining portions of the sewage treatment plant to effect as much through modification of the sewage than that

secured by sedimentation and treatment by a chemical germicide unless the State authorities shall hereafter determine that the general interests of the public health would be subserved by granting a further extension of time for the discharge of partially treated sewage into State waters.

Eleventh: If at any time the sewer system the sewage treatment works or any part thereof or the discharge of partially treated sewage into State waters shall have become a nuisance or menace to public health then such remedial measures shall be undertaken by the city as the State Department of Health may advise or suggest.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

Samuel G. Dixon
Commissioner of Health.

Department of Health Commonwealth of Pennsylvania

Harrisburg, Pennsylvania, March tenth, nineteen hundred and fifteen.

By Agreement of the Governor, Attorney General and Commissioner of Health.

State of Pennsylvania } ss:
County of Dauphin }

On the 10th day of March in the year one thousand nine hundred and fifteen before me the subscriber a Notary Public came the above named Samuel G. Dixon and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and Notarial seal.

A. Coleman Sheetz

A. Coleman Sheetz
Notary Public
Harrisburg Pa.

My commission expires Feb. 21, 1919.

Recorded March 12, 1915

August Sonneman Jr. Recorder.

Appendix A-5-1 (AUS)

came the above named Seth L. Hershey and Emma E. Hershey his wife, who in due form of law acknowledged the foregoing Indenture to be their act and deed, and desired that the same might be recorded as such. Witness my hand and offical seal the day and year aforesaid.

Noah C. May. (Seal)
Alderman

noah c. may. alderman. fifth Ward. York. York co. Pa.

my Commission expires the first Monday in May, 1913.

Recorded October 22-nd. 1909.

George Lauer Recorde.

#. 3776. Comm. of Penna. Dpt. of Health
To.
City of York Dept. of Health.

Commonwealth of Pennsylvania. Department of Health. To the Honorable the Mayor and Councils, City of York, York County, Pennsylvania

I, Samuel G. Dixon, Commissioner of Health of the Commonwealth of Pennsylvania, do hereby, in conformity with a unanimous agreement reached by the Governor, Attorney General and the Commissioner of Health relative thereto, approve the plans for the proposed sewerage and sewage disposal works, and issue a permit for the construction thereof to the City of York, York County, Pennsylvania, in compliance with an application duly made and bearing date of June tenth one thousand nine hundred and seven, under the following conditions and stipulations.

It appears that a permit for the extension of the City sewer system was issued by the Commissioner of Health on January eighteenth, one thousand nine hundred and six, under certain conditions, among which were the following:

"That all of the sewage of the City shall be

collected by the new City sewer system and a plan thereof shall be prepared and filed with the Commissioner of Health on or before March 1st, 1906, showing the entire district ultimately to be served by said system and having marked thereon the sewers of said system built on or before January 1st, 1906. at the close of each succeeding year, a plan shall be submitted to the Commissioner of Health showing the sewers added to said system during the year just past.

"That all storm and roof water shall be excluded from the said system of sewers. therefore, existing storm sewers must not be taken into said sewer system.

"That the sewage from the said sewer system shall be conveyed to some suitable place and there be treated by some well known and acceptable process. plans of the intercepting out fall and sewage disposed works must be submitted to the Commissioner of Health for his approval before the same works are built"

It also appears that in Compliance with the provisions of the said permit of January eighteenth one thousand nine hundred and six, the City of York has prepared the plans for proposed sewers and sewage disposal works and submitted them for approval.

The City of York has a present population of about forty-five thousand people, and in its suburbs outside of the City limits there are estimated to be ten thousand people, making a total of fifty-five thousand, supplied by the York Water Company. This same district will ultimately be served by the proposed sewer system, which is designed to accommodate a total population of one hundred and twenty-five thousand. The City is the County seat and a-,

prominent manufacturing Community, its chief industries are the manufacture of silk, wall and roofing paper, boilers, ice machinery and farming implements. The first two contribute large volumes of liquid waste to the stream.

At the present time there are twenty-three sewer outlets into the Codorus Creek within the limits of the City. This creek rises in the South-West corner of the County, drains an area of about two hundred and thirty square miles above the City, upon which reside a population of about twenty-six thousand people, located in eight Boroughs and thirteen Townships, passes through and drains the City of York and continues in a generally north-Easterly direction below the City, a distance of nine miles to the Susquehanna River which it enters at a point about eight miles above Columbia on said river.

The normal dry weather sewage output of the twenty-three outlets is about one million seven hundred thousand gallons daily, of which about one million gallons comes from the silk and wall-paper mills. These wastes discolor the water of the creek about ten miles above the City, on a branch of the Codorus, there is a large paper mill, whose liquid wastes pollute the creek so that the creek is not pure when it enters York.

There is a succession of dams on the creek, so that its flow is sluggish in and immediately below the City. dam number one is located where the creek enters the City. dam number two is located just below the City limits and dam number six, the last dam, is located on the Rapids from this point to the river, a distance of about three miles, the fall is approximately sixty feet and the course of the stream is through a deep, narrow, precipitous, rocky gorge. Slack water from

dam number two extends back through the city to dam number one, so that all of the said twenty-three sewer outlets are into slack water. therefore, dam number two creates a pool, or elongated sedimentation basin, and in turn, each successive dam acts in a similar manner to retard the velocity and promote deposit of suspended matter.

To obviate the troubles within its own limits incident to such disposal of sewage, and to extend sewerage facilities throughout the municipality, experienced and reliable engineers were employed, a system of sewerage was designed and adopted for which an appropriation of four hundred thousand dollars had been previously made, and the work of construction was carried forward until the money became exhausted. It was early apparent that the four hundred thousand dollar appropriation would be insufficient to complete the system of street sewers, although the original loan had been authorized by the public with the expectation that four hundred thousand dollars would be enough to defray the expenses of both sewerage and sewage disposal works.

About ninety per cent of the interior system of street and house lateral sewers, as designed by the engineers, has been completed on lines comparing closely with the distributing pipes of the water and gas supplies as developed to the present time. There yet remain to be built some important street sewers and all of the outfall sewer and the disposal works. It appears that these additions will cost four hundred thousand dollars.

The Commissioner of Health refused permission to the city to put the new sewer system, as now built, into Commission, pending the securing of funds for the construction of the outfall sewer,

and disposal works for the reasons fully set forth in a decree issued January eighteenth, one thousand nine hundred and six.

It appears that the Codorus Creek at times of low summer flow, for periods of several weeks at a time, may not yield at York City a volume sufficient to dilute the sewage of more than from ten to fifteen thousand people without creating a nuisance.

At present, excluding the Mills, seven thousand people only are using the old sewers. If the new system of sewers were used and discharged into the creek, probably twenty-five thousand people would contribute to the flow during the first twelve months, and such new use would create a material increase in the pollution of the creek. Not only would the owners of property abutting the stream in the City suffer thereby, but the proprietors in the townships below would be damaged. These lower riparian owners, or some of them, are represented by counsel and are prepared to protect their rights in the waters of the creek before the State Health Department and the civil courts, if necessary. It nowhere appears that the interests of the public Health demand that more sewage shall be discharged into Codorus Creek than was being discharged at the time the City of York determined it to be necessary to stop the pollution of the creek by the construction of sewerage and sewage disposal works.'

The old sewer system, comprised of the twenty-three sewer outlets and serving seven thousand people, numbers all told a length of about fifteen and nine-tenths miles, of which nine and three tenths miles are private sewers. thirteen of the twenty-three outlets into Codorus Creek were built by private enterprise. Distributed in the City there are fifteen private sewers, or systems which empty into

the public sewers, whose outlets are into the creek. These private sewers supply a very large percentage of the total domestic sewage output to the creek, and unless such sewers are incorporated into the new sewer system, or their outlets into the Codonus are discontinued, the present pollution of the stream will exist after the city shall have completed the proposed system of sewers and sewage disposal works.

The remaining ten of the said twenty-three outlets into the Codonus creek are city combined sewers, of which six were designed to receive storm water only, but into which a total of one and seven-tenths miles of private sewers discharge.

The remaining four public outlets were designed as combined sewers, have a total length of one and a half miles and also serve as outlets for about three miles of private sewers.

There are various other storm drains emptying into the creek or into smaller water courses in the Eastern part of the City. It is claimed that they receive no sewage.

It appears that there are now about forty miles of new sewers built within the past three years in conformity with the comprehensive plan of sewerage for the entire municipality, which sewers are not yet in use. It also appears that there are about three miles of sewers, both public and private, built previously to the year one thousand nine hundred and four, which it is proposed to incorporate into the city system, to avoid the expense of duplicate sewers and the expense to adjoining householders of changing connections from existing sewers to new ones. It is proposed to build ten miles of new sewers to complete the comprehensive system and to serve the requirements of the City at present and in the near-,

future. By this plan all existing sewers will either be incorporated into the new system or duplicate sewers will be provided, so that abutting estates will be afforded sewerage facilities. Hence the necessity for the existence of private sewer outlets into any natural water courses in the city will be obviated.

The new sewer system is designed to receive sewage only. Storm and roof water is to be generally excluded, so that none of the existing city combined sewers are to be incorporated in the new sewer system with three exceptions, namely, the Duke Street sewer, the East Mason alley sewer and the West Market sewer. Their total length is about two miles and the daily dry weather flow of sewage therefrom is now about half a Million gallons. It is proposed that all of the dry weather flow of sewage from these three storm drains shall go into the intercepting sewer and thence to the disposal works, but during storms the mingled sewage and storm water is to be cut out of said intercepting sewer by an approved automatic regulator and caused to overflow into Codorus Creek. This expedient is resorted to principally for the reason that it will save the cost of paralleling the present sewers by new structures and the cost of new house connections. The petitioners represent that it is important that economy as well as efficiency shall be attained by the improvement, and that the discharge for intervals of an hour or so during heavy storms of the small amount of sewage from these overflow will not measurably increase the pollution of the creek resulting inevitably from the wash of the yards and Streets of the city into the stream which latter pollution is recognized by the Courts to be unpreventable.

The sewers are designed to be self cleansing, flush tanks are to be provided at all dead ends,

ventilation is to be effected through perforated manhole covers and by means of untrapped house connections, by means of which a current of air is to be maintained through the main soil pipe to above the roof of each building. However, a plumbing ordinance to this effect has not yet been prepared so far as the Department is informed. It is also intended that there shall be an official appointed to issue permits for all sewer connections and an official to exercise general supervision over the maintenance of the sewers. In the low part of the town special air vents are to be provided to secure ventilation.

The disposal works are to consist of an outfall sewer, pumping station, septic tank, sprinkling filters and settling basins. The sewage of the City is to be collected at a point on the West bank of the creek in Manchester Township near the limits of the City, where the two main sewers of the system are to combine to form the outfall. All of the sewers in the district West of Codorus Creek, are to contribute to a forty-two inch sewer main, and some of the sewers in the Southern section of the town, East of the creek. The flow from the latter is to be syphoned under the creek near Boundary Avenue and added to the flow of the Western district. All of the remaining sewers in the district East of the creek, which comprises the principal part of York, are to be connected by a syphon under the creek in the Northern part of the City to a thirty-nine inch sewer main, which with the forty-two inch main, combines to form the outfall. The upper syphon is to comprise two lines of sixteen inch iron pipe, and the lower syphon two lines of twenty-four inch iron pipe

The outfall sewer is to be five feet in diameter, to follow along the West bank of the Codorus, a distance of about five thousand feet to Goucher's

Mill, terminating at the pumping station. Its slope is to be one in two thousand and its capacity thirty-three million gallons daily when flowing full. This gravity conduit will provide for future requirements when outlying areas have become populated and annexed to the City.

The pumping plant is to comprise a station three stories in height, in the basement of which is to be located the screening chamber and pump well, and on the first floor of which is to be located three centrifugal pumps, each of a capacity of five million gallons daily, which makes ample provision for the quantity of sewage which may be expected during the first years of operation, the arrangements being such as to accommodate, in the future, four ten million gallon pumps. These centrifugal pumps are to be driven by electric motors to be located on the upper or ground floor of the station, which floor is above high water in the valley. The motors are to be operated by electric current which it is proposed to obtain from the York Haven Power Company. By means of floats, placed in the pump pit, the pumps are to be automatically controlled. The storage capacity of the five foot out fall sewer is such that the pumps may be stopped for several hours without the necessity of discharge of the sewage into the stream. However, as is customary in all well designed plants, there is provision in the event of some extraordinary accident, for the by-passing of the sewage from the pump well to the creek.

By means of the pumps, the sewage is to be lifted on an average of sixteen feet through ten thousand feet of thirty inch re-inforced concrete force main, (provided at low points with proper blow-off and at summits with approved air vents carried up above the line of the hydraulic

gradient,) to the septic tank, at the disposal works to be located on the West bank of the Lodoms Creek immediately below Small's Mill, or dam number four. This dam is located about one and a half miles above dam number six. The intervening land, and in fact all of the land in the valley below the City, is in use for agricultural and farming purposes. Provided experience shall demonstrate that suspended matters should be more thoroughly removed from the sewage than can be effected by the bar screens at the pump well, then it is the intention to install further screening apparatus at the septic tanks before the sewage is delivered into said tanks.

The septic tank is to be a concrete structure, open on top, eleven feet nine inches deep from the flow line and one hundred and seventy feet along by one hundred and thirty-two feet under the clear, divided into two compartments, each sixty-six feet wide. By this arrangement there are to be in reality two tanks in duplicate so arranged as to admit of additional tanks in the future. Across the inlet end of each tank there is to be a channel on the outside to conduct the sewage into either one of the septic tanks or both of them. Sluice gates are provided for this purpose. By means of longitudinal concrete partitions extending from the bottom to the top of each tank, each tank is to be divided into three longitudinal compartments. The sewage is to be admitted into the end of one of these Compartments, which is twenty-two feet wide, just below the flow line and will pass underneath a top baffle board extending down into the sewage about five feet, and thence down the length of the tank, where it may be directed by means of wooden swing gates back through a parallel compartment twenty-two feet wide, and thence around —)

the end of a division wall down the outlet compartment, twenty-two feet wide, to the overflow weirs, or at will, by means of the swing gates, directly to said outlet weirs on the end of the third or outlet compartment from the first compartment. By this arrangement either one of three compartments in each tank may be used as the necessity of the volume and character of the sewage may require. The capacity of each tank is about one million gallons. It is anticipated that before the works will need enlargement, the sewage contributed will amount to six million gallons daily, on a period of eight hours' retention in the septic tank.

Sludge conduits are provided in the bottom of each tank to deliver the sludge to a drain leading to an area outside comprising about seven acres, upon which the sludge may be disposed of in trenches where the liquid is to be absorbed in the ground and the sludge is to air dry, from whence it is to be subsequently removed and disposed of in a satisfactory manner. The sludge from the settling tanks is also to be handled in a similar manner on the same area.

From the septic tank the clarified effluent is to be conducted into a dosing chamber and thence to the sprinkling filters. There are to be two of these filters, ranged side by side, each three hundred and fifty-four feet long by one hundred and forty-six feet wide, interior dimensions, of concrete receptacles made water-tight to contain the filtering material which is to consist of broken limestone whose diameters are to range from one and a half inches to three inches laid six feet in depth upon a false bottom of half round tile six inches in diameter, spaced nine inches centre to centre, resting on the concrete floor, sloping from the central main distributing gallery dividing the filters seventy-five

hundredths feet to the outer side of each filter where in the bottom below the floor of the filter into which the underdrain system discharges is to be an effluent Collector discharging into an outside Conduit Connecting with the settling basin.

The septic effluent is to be distributed onto the surface of the filters in form of a spray, effected by means of sprinkling nozzles to be placed at the top of vertical pipes connecting with horizontal distributors branching from the main distributor in the operating gallery. The horizontal pipes will be fitted with angle valves so that any particular distributor in the filter may be put out of Commission if desirable By this novel arrangement, the operation of each filter will be flexible and subject to Complete control. The dosing tank between the septic tank and the filters will cause the flow of sewage to be intermittent. The pressure at the sprinkling nozzles will range from five to two feet.

The films of suspended matter which will form around the broken stone, dry out and crack and peel off and pass from the filtering material to the floor of the filter below and thence out with the effluent, will impart an unattractive appearance to the discharge; such detached matters, however, are readily removed by sedimentation and for this purpose a basin, having a Capacity of about five hundred thousand gallons, divided into two compartments, each sixty-five by one hundred and twenty and four feet deep to the flow-line, built of concrete bottom and sides, is provided. The liquid leaving this settling tank should, if the plant be efficiently operated, be satisfactory in appearance and free from organic matter of an objectionable character. The effluent should be non-putrescible.

The elevation of the surface of the settling

basin is to be three hundred and forty-one and one-quarter; the filter beds, three hundred and fifty and the septic tank three hundred and fifty-seven. The elevation of the average spring flood in the Codorus creek is three hundred and thirty-five, or six and one-quarter feet below the level of the flow line in the settling basin. It appears that once in seventy years a flood has attained the elevation of three hundred and forty-eight, in fifty years elevation three hundred and forty-five, in twenty years elevation three hundred and forty-two and about every tenth year three hundred and forty. So the settling basin will be flooded once in fifteen or twenty years at such times, because the sprinkling filter surface is well above the seventy year freshet line, this filter can be operated and need never go out of Commission. The filter is designed to be operated temporarily as a contact bed when desirable by means of a gate or stop planks on the main outlet drain.

The city purposes to purchase a farm of about one hundred and fifty acres upon which to locate the disposal plant. Then the nearest residence will be one-third of a mile distant; the next nearest three thousand five hundred feet. With good management there should be no odors noticable six hundred feet from the works. The northern Central Division of the Pennsylvania Railroad passes within this distance. The site is more secluded than that of numerous municipal disposal plants.

The proposed plans embody the essential elements of successful modern purification and are well adapted to the topographical and other conditions obtaining in the valley of the Codorus. They are adapted to produce efficiency at a minimum cost of operation and all that remains to be

accomplished is the carrying out of the plans under skilled supervision and intelligent operation and maintenance of the works thereafter.

In order that the plant shall be satisfactorily operated, it is intended that two men shall be regularly employed, one of whom shall be capable of conducting analytical tests of the sewage and effluents and keep records, and the other a caretaker, besides doing such extra labor as may be required from time to time. The plans do not provide for the erection of a laboratory.

In view of the circumstances, it has been unanimously agreed by the Governor, attorney General and Commissioner of Health that the interests of the public Health demand that the Commissioner of Health approve the plans and grant a permit, and I do hereby and herein approve the plans for the proposed sewerage and sewage disposal works and grant a permit for their construction, under the following conditions and stipulations:

First: That if at any time in the future the Commissioner of Health shall determine that the storm overflows into the Lodons Creek are prejudicial to public health, or if, in his opinion, any other part of the sewerage system, or any part of the disposal works is inefficient or operated to the prejudice of public health, then such remedial measures shall be adopted by the City as the Commissioner of Health may approve or prescribe.

Second: at the close of each year's work plans of the sewers built during the year, together with such information in connection therewith as may be required, shall be filed in the State Department of Health.

Third: Monthly inspections of the sewer system shall be made by a proper officer of the City and recorded in form, and copies of the same shall >

be submitted to the State Department of Health if required.

Fourth: That by-pass from the pump-well to the Codonus and the blow-offs on the force main and the drain pipe from the septic tanks and settling tanks shall be kept securely locked and shall not be used except when absolutely necessary. Notification of such use shall be promptly made in writing to the Commissioner of Health. The sludge drying area shall be trenched for the reception of sewage as soon as the works are ready for operation, in order to prevent any accidental passage of sewage from the tanks over the surface of the drying area to the creek.

Fifth: Since the owners of estates now connected with a private sewer in the City which is not to be incorporated in the public sewer system may not care to change over to the public sewer on account of expense entailed, the sewage from such private sewers may continue as now to go into the Codonus creek unless such owner voluntarily connects with the city system, or he be compelled to so connect, it is hereby stipulated that the City authorities shall pass such adequate ordinances, rules or regulations necessary to compel the use of the City sewer system and the discontinuance of the discharge of all private sewers into natural water courses within the City limits, or upon failure to bring about such discontinuance, shall call the attention of the Commissioner of Health to the existence of such sewer outlets.

Sixth: The City shall provide and maintain a laboratory in connection with the operation of the sewage disposal plant and shall place and keep in charge thereof a man capable of making adequate analytical tests and of keeping records, and such reports of the operation and maintenance of the disposal works as may be required by the

Commissioner of Health shall be made to the State upon blank forms to be furnished by the State Department of Health. Such other proper and necessary attendants shall be employed at the works as may be necessary to secure satisfactory operation thereof.

Seventh: The especial attention of the City officials is called to the great importance of having the proposed plans of the sewage disposal works executed under the direction and supervision of the experts designing the plans, or of experts equally competent to carry forward the improvement.

Eighth: Approval to the proposed plans is given with the specific understanding that all objectionable industrial wastes are to be taken into the system, under such rules and regulations as the City may see fit to prescribe to protect the integrity or efficiency of the sewer system.

Ninth: No pathological material from any laboratory shall be permitted to enter the sewer system. The proper authorities shall cause these wastes to be incinerated on the premises.

The attention of the local authorities is hereby called to the necessity of having City inspection of all house connections and of the desirability of the adoption of the regulation requiring untrapped house drains between the sewer and the house with a clear vent extending to above the roof of each building. While this condition is not precedent to the approval herein given to the proposed plan, the City is requested to give earnest consideration to the advisability of the adoption of such an ordinance.

This permit before being operative, shall be recorded in the office of the recorder of Deeds for York County.

Samuel G. Dixon.
Commissioner of Health.

Harrisburg, Pa.,
June 14, 1907.

Department of Health
Commonwealth of Pennsylvania

State of Pennsylvania } ss.
County of Dauphin } On the fourteenth day of June in the year one thousand nine hundred and seven, before me, the subscriber, a notary Public, came the above named, Samuel G. Dixon, Commissioner of Health and duly acknowledged the above permit to be his act and deed and desired the same might be recorded as such.

Witness my hand W. W. C. Armor.
William C. Armor Notary Public Harrisburg Pa.
Notary Public.

Commission expires April 19, 1911.

Recorded Oct. 22-nd. 1909.

George Lau Recorder.

#3777. A. S. Speece. To Harrisburg Trust Co. Lewis Gayman To A. S. Speece.

Mortgage Dated March 30, 1906. Upon tract of land containing 44 acres and 83 perches in Monaghan Township, York County, Pa. To secure $1,700. Interest @ 6% per annum. Recorded in York County, on the 31st day of March Anno Domini 1906, in Mortgage-Book C. vol "5," at page 294.

Know all men by these presents That A. S. Speece, of Speeceville, Dauphin County, Pa. for and in consideration of the sum of one dollar ($1.00) lawful money of the United States of America, to me in hand paid by Harrisburg Trust Company at or before the ensealing and delivery of these presents, the receipt whereof is hereby acknowledged, have granted, bargained, sold, assigned, transferred and set over, and by these presents do grant, bargain, sell, assign, transfer and set over unto the said Harrisburg

first part, and their heirs, all and singular the hereditaments and premises herein above described and granted or mentioned, and intended so to be, with the appurtenances, unto the said party of the second part, his heirs and assigns against them the said parties of the first part and their heirs, and against all and every other person or persons whomsoever lawfully claiming or to claim the same or any part thereof, shall and will warrant and forever defend.

In Witness Whereof, the said parties of the first part have to these presents set their hands and seals. Dated the day and year first above written.

Sealed and delivered in the presence of
All erasures alterations and interlineations made before signing.
R. E. Glenn,

David A. Horn (SEAL)
Annie Horn (SEAL)

Received the day of the date of the above Indenture of the above named Jerome B. Hess, the sum of Seven Hundred Dollars, lawful money of the United States, being the consideration money above mentioned in full.

Witness;
R. E. Glenn

D. A. Horn

:SS,
State of Penna, : On this Twenty sixth day of September A. D. 1912, before me, the subscriber,
County of York, : A Notary Public in and for the State and County aforesaid, personally came
: the above named David A. Horn and Annie Horn, his wife, who in due form of
: law acknowledged the foregoing Indenture to be their act and deed, and desired that the same might be recorded as such.

Witness my hand and Notarial seal the day and year aforesaid.

Robert E. Glenn (SEAL)
Notary Public
My commission expires Jan, 21, 1915,

Robert E. Glenn, Notary Public Red Lion York Co, Pa,

Recorded June 21, 1913,
August Sonneman Jr, Recorder,

6943. Maria Moul To Albert M. Owen

Whereas, Catharine Selak of the City of York, York County, Pennsylvania, died leaving her last will and testament bearing date the 28th day of October A. D. 1911, which said last will and testament has been duly admitted to probate by the Register of Wills of York County, Pennsylvania, and is recorded in said Register's Office in Book Z J page 64, and

Whereas, among other things it is provided and directed as follows, to wit:

" I give, devise and bequeath to my three (3) grand-children, children of my daughter Mary Sponsler, deceased, viz: Madaline, intermarried to J. H. Richey, Maria Sponsler and Caroline Sponsler, each Five Hundred ($500.00) Dollars, to their heirs and assigns forever,"

And Whereas, Maria Sponsler is now intermarried with William Raymond Moul, and is one of the above named grand-children and a daughter of Mary Sponsler, and now of full age, and entitled to receive from the estate of the said decedent, the sum of Five Hundred ($500.00) Dollars, and

Whereas, Albert M. Owen has this day advanced to me the just and full sum of Three Hundred ($300.00) Dollars, on my note dated this day and payable to him one year after date with interest thereon. Now Therefore,

Know all Men By these Presents, That I Maria Moul, formerly Maria Sponsler, do hereby sell, assign, transfer and set over unto Albert M. Owen, his heirs and assigns, executors and administrators, the said legacy of Five Hundred ($500.00) Dollars, bequeathed and given to me under the last will and testament of Catharine Selak, deceased, as collateral security , to secure, indemnify and save harmless the said Albert M. Owen, his executors, administrators or assigns against any loss that he may sustain on said note, and I further authorize and empower Wentzel A. Selak, the executor of said last will and testament, to pay to Albert M. Owen, his heirs, executors and administrators, any and all sums of money that may become due and payable on this assignment.

In Witness Whereof, I have hereunto set my hand and seal this 21st day of June A. D. 1913,

Witness,
W. Ray Moul

Maria Moul

:SS,
State of Pennsylvania, : Personally appeared before me A Notary Public, in and for said County
York County, : Maria Moul, the person who signed the foregoing assignment and instrument of writing, and in due form of law acknowledged the same to be her act and deed and desired that the same might be recorded as such according to law.

In Witness Whereof I Have hereunto set my hand and official seal this 21st day of June A. D. 1913,

Grace M. Drayer
Notary Public
My commission expires Feb 21, 1915,

Grace M. Drayer, Notary Public York Pennsylvania, York Pa,

Recorded June 21, 1913,
August Sonneman Jr, Recorder,

6944. Samuel G. Dixon To City of York,

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH.

To The Honorable The Mayor and City Councils, York City, York County, Pennsylvania, On June fifth, Nineteen hundred and thirteen, the City of York, York County, Pennsylvania, made application for permission to extend its sewer system and to build sewage works for the partial treatment of the sewage.

The Governor, Attorney General and Commissioner of Health have given the matter consideration and have unanimously agreed that the interests of the Public Health will be subserved by approving the plan outlined for temporarily treating the sewage of the City in substantial accordance with the report of George W. Fuller.

Therefore I, Samuel G. Dixon, Commissioner of Health of the Commonwealth of Pennsylvania, do hereby approve of the proposed sewer extensions and of the treatment of the sewage in substantial accordance with the recommendations of George W. Fuller, subject to the following conditions and stipulations:

First: Before the City builds the outfall sewer and temporary treatment works, it shall prepared detail plans and specifications for such improvement and for necessary changes in the sewer system and connections to the proposed outfall sewer and temporary treatment works, and shall have submitted the same to the Commissioner of Health for approval and he shall have approved, modified or amended such plans and specifications and stipulated the conditions under which the project may be carried out.

Second: The city shall construct and operate such said improvements in conformity with the conditions stipulated by the Commissioner of Health and no sewage of the City shall be discharged into the waters of the State from the sewer system of the City contrary to the provisions and requirements of the State Department of Health.

Third: The necessary changes in the sewer system shall be approved by the Commissioner of Health and all relevent conditions of the said permit of June fourteenth Nineteen hundred and seven, shall remain and be in full force.

Fourth: This permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

Samuel G. Dixon
Commissioner of Health.
Harrisburg, Pennsylvania, June thirteenth, Nineteen Hundred and thirteen.

By the agreement of the Governor, Attorney General and Commissioner of Health.

Department of Health Commonwealth of Pennsylvania

:SS,
State of Pennsylvania; : On the 16th day of June in the year One thousand nine hundred
County of Dauphin : and thirteen, before me the subscriber, A Notary Public, came
: the above named Samuel G. Dixon and duly acknowledged the
: above permit to be his act and deed and desired that the
same might be recorded as such.

Witness my hand and notarial seal

A. Coleman Sheetz, Notary Public Harrisburg, Pa.

A. Coleman Sheetz,
Notary Public
Commission expires Feb 21, 1915.

Recorded June 21, 1913,
August Sonneman Jr, Recorder.

#6947. Frederick M. Small Et ux, : This Deed made this 21st day of May, 1913, by Frederick
To : M. Small and Juliet S. Small, his wife, of the City and
The Elmwood Land Company, : County of York, to The Elmwood Land Company, a corpora-
: tion duly incorporated,

Witnesseth: That in consideration of the sum of Five Dollars ($5.) and other good and valuable considerations, the said Frederick M. Small and Juliet S. Small, his wife do hereby grant and convey unto The Elmwood Land Company, and to its successors and assigns, in fee simple, forever, all that lot and parcel of ground, situate and lying in York County, Pennsylvania, and more particularly described as follows, viz,

Beginning at a point in the Eastern line of a 10 foot wide alley and the southwestern corner of lot belonging to David Getz, said point located 173.1 feet southward from the south line of King Street; thence extending along lands of Margaret A. Small and Tract No.1 herein conveyed to Frederick M. Small South 59 degrees 29 minutes East 69.3 feet to a point in the lands of the estate of John H. Small; thence along lands of John H. Small Estate 67 degrees 47 minutes West 24 feet to a point in same; thence North 59 degrees 29 minutes West 33 feet along lands of Margaret A. Small to a point in the eastern line of said 10 foot wide alley, thence along the eastern line of said alley north 22 degrees 13 minutes West 28 feet to a point and the place of Beginning.

Being the same lot and parcel of ground, which by deed dated January 5, 1911, and recorded among the land records of York County, in Deed Book "16 L", folio No.411, granted and conveyed by Margaret A. Small to Frederick M. Small.

Together with the improvements thereon, and all the rights, privileges and appurtenances thereunto belonging or appertaining.

To have and to hold the aforesaid lot of ground and improvements unto and to the use of the Elmwood Land Company, and to its successors and assigns absolutely and in fee simple.

Provided, however, that the lot of ground above described shall be used only for the purposes of an alley.

And the said grantors do hereby covenant that they will warrant generally the property hereby conveyed, and that they will execute such other and further assurances thereof as may be requisite.

Witness the hands and seals of the said grantors. Frederick M. Small (SEAL)
Witness as to both: Juliet S. Small (SEAL)
W. W. Warfel

: SS,
State of Pennsylvania; : I hereby certify that on this 21st day of May, 1913, before
County of York, : the subscriber, A Notary Public of the State of Pennsylvania,
: in and for York County, personally appeared Frederick M.

any act matter or thing whatsoever whereby the premises aforesaid or any part thereof, is are shall or may be charged or encumbered in title, charge or Estate or otherwise howsoever.—

In witness whereof, the said Robert C. Bair, assignee, has hereunto set his hand and seal the day and year first above written.

Signed sealed and delivered in presence of us Jas G. Glessner, Elsie Hannigan | Robert C. Bair (Seal) Assignee of John Bair.

Received the day of the date of the foregoing of Charles P. Riemer, Five hundred and Fifty Dollars ($550.00) | Robert C. Bair assignee.

Witness John A. Stoner.

State of Penna.
York County. } S.S.

Before me the Subscriber a Notary Public in and for said County personally came the above named Robert C. Bair Assignee, and acknowledged the above Indenture to be his act and deed, to the end that the same might be Recorded as such according to Law. In testimony whereof, I have hereunto set my hand and Notarial seal this 23rd day of June A.D. 1914.

My Commission Expires February 21st 1915. | John A. Stoner Notary Public

John A. Stoner Notary Public York, Pa.

Recorded June 24th A.D. 1914.

August Sonneman Jr Recorder

11136. Permit For Sewarage, Commonwealth of Pennsylvania, Department of Health.

To, the Mayor and City Council of York, York County Pennsylvania,

On June Eighteenth, One thousand nine hund-

red and Fourteen. The City of York, York County Pennsylvania, Made application for approval of plans for an Outfall sewer and the Completion of Certain Intercepting Sewers in the City in substantial Compliance with the Terms of a permit issued to the City on June Thirteenth One thousand nine hundred and thirteen

Whereupon the Governor, Attorney General and Commissioner of Health, after having Considered the Matter, have arrived at the Conclusion, that the General interests of the public health will be subserved by the approval of the proposed Outfall Sewer and Completion of the Intercepting Sewers,

Therefore I Samuel G. Dixon Commissioner of Health of the Commonwealth of Pennsylvania do hereby and herein approve the proposed construction and issue a permit therefor, subject to the following Conditions and Stipulations.

First" This permit Constitutes approval of the Construction of the Municipal Outfall Sewer from a point on North George Street, along the Bank of Codorus Creek, to a Sewage Treatment plant to be Constructed, near Locke Mill, with a connection to the poor house run, Siphon, to be built across Codorus Creek and also for the Completion of the west side intercepting Sewer near Grant and Gay Streets but does not Constitute permission to discharge Sewage into State waters, or any portion of the existing Sanitary Sewerage System, until after the completion of a Sewage Treatment plant to be constructed according to plans approved by the State,

Second; The City shall file with the State Department of Health plans of the Sewers approved in this permit as actually constructed.

Third" On or before May first Nineteen Hundred and Fifteen the City shall submit

to the State Department of Health for approval. Plans of the sewage treatment plant for the separation of the solids and the sterilization of the liquids of the sewage and the same shall be constructed and placed in operation on or not later than December thirty first Nineteen hundred and fifteen.

It is required by Law that this permit before being operative shall be Recorded in the Office of the Recorder of Deeds for York County.

Samuel G. Dixon,
Commissioner of Health.

Harrisburg Pennsylvania,
June Twenty Fifth,
Nineteen hundred and Fourteen.

Department of Health of the Commonwealth of Pennsylvania

By agreement of the
Governor Attorney General and Commissioner of Health,
State of Pennsylvania.

County of Dauphin } S.S.

On the 26th day of June in the Year One thousand Nine hundred and Fourteen before me the subscriber a Notary Public came the above named Samuel G. Dixon and duly acknowledged the above ~~and~~ permit to be his act and deed and desired that the same be recorded as such.

Witness my hand and Notarial Seal
My Commission } A. Coleman Sheetz.
Expires Feb 2. 1915.

A. Coleman Sheetz
Notary Pub.
Dauphin Co. Pa.

Recorded July 1st A.D. 1914.
August Lochmann Jr. Recorder &c.

11137 Robert W. Emerson, Esq. } This Deed
to } Made the Fifteenth
George Marlow. } day of June in the
year Nineteen hundred } and Fourteen (1914)
Between Robert W. Emerson of the city of York

* 1579. Permit Relating To Sewerage of York City

Commonwealth of Pennsylvania
Department of Health,
To the City Council of York, York County, Pennsylvania,

On June Eighth, Nineteen Hundred and fifteen The City of York, York County, Pennsylvania made Application for Approval of Plans for an Extension of its Existing Sewer System by the Construction of a Storm Drain which for the present will be used as a Combined Sewer Transporting both Storm Water and Sanitary Sewage, Thereupon, the Governor, Attorney General and Commissioner of Health, after giving the Matter Careful Study have Unanimously Agreed, That the proposed Sewer extension will Subserve the General interests of the Public Health,

Therefore I, Samuel G. Dixon, Commissioner of Health, of the Commonwealth of Pennsylvania Do Hereby and Herein Approve the Proposed Sewer extension, and issue a Permit therefor Subject to the following Conditions,

First, "All Relevant Conditions and Stipulations of the previous Permits Shall be Continued in full force and shall apply to the work herein Approved

Second, "The right herein granted to discharge Sewage into the waters of the State by way of the proposed Glen Alley Sewer Shall be Temporary Only and Shall cease when the Sewage Disposal Works, now under Construction by the City, Shall be placed in Operation or at an earlier date within Two months after notification by the State Department of Health to cease such Discharge

Third, The City shall proceed with diligence, to provide Sewerage facilities whereby upon Completion of the Disposal Plant a Complete Cessation of the Discharge of any Sewage by the way of the Existing Sherman Street Out Let will be brought about

It is required by Law that this permit before being Operative shall be recorded in the Office of the Recorder of Deeds for York County.

Samuel G. Dixon
Commissioner of Health.

Harrisburg Pennsylvania
June thirtieth Nineteen
Hundred and fifteen.

Issued upon unanimous Agreement of the Governor. Attorney General. and Commissioner of Health.

State of Pennsylvania }
County of York. } S.S.

On the 30th day of June in the Year One Thousand Nine Hundred and fifteen. Before me the Subscriber a Notary Public, came the above named Samuel G. Dixon. and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and Notarial Seal.
My Commission
expires March 9th 1919.

N. C. A. Douglas
Notary Public.

Recorded July 3. A.D. 1915.

August Sommerman Jr. Recorder

#15181

Richard P. Webb. (A. fee.)
To
Milton J. Herbert.

This Indenture Made this thirty first day of March in the Year of Our Lord One Thousand Nine Hundred and fifteen Between Richard P. Webb and Maggie M. Webb his wife of Fawn Township, York County and State of Pennsylvania parties of the first part and Milton J. Herbert of Fawn Grove Borough in the aforesaid County and State party of the second part

year first above written.
Sealed and Delivered
in the Presence of
Julius W. Fischer

G. H. Shirk. (seal)
Emma S. Shirk. (seal)

State of Pennsylvania } ss.
County of York }

On this thirtieth day of March A. D. 1914.
before me a Notary Public in and for said State
and County came the above named G. H. Shirk and
his wife Emma S. Shirk and acknowledged the
foregoing Deed to be their act and deed and de-
sired the same might be recorded as such.

Witness my hand and Notarial seal the day
and year aforesaid.

Julius W. Fischer
Notary Public.

(Official Seal)

My commission expires Jan. 21, 1917.

Recorded December 31, 1915.

August Sommer Jr. Recorder.

113. Commonwealth of Penna.
To.
City of York.

Commonwealth of Pennsylvania
Department of Health.
To the Mayor and City Council. York
York County, Pennsylvania.

On December twenty-first, nineteen hundred and fifteen, the City of York, York County, made application for an extension of time within which to complete the outfall sewer and sewage treatment works now under course of construction.

The statements in the application have been checked and verified by the Engineering Division of the Department of Health, against the physical conditions represented therein.

Whereupon, the Governor, attorney General and

Commissioner of Health, after reviewing and considering the matter have unanimously agreed that the general interests of the public health will be subserved by granting an extension of time within which to complete the outfall sewer and sewage treatment works.

Therefor, I Samuel G. Dixon, Commissioner of Health of the Commonwealth of Pennsylvania, do hereby and herein grant an extension of time for the Completion of the outfall sewer and sewage treatment works and issue a permit therefor, subject to the following conditions: First: The time specified for the completion of the outfall sewer and sewage treatment works is hereby set forward to May first, nineteen hundred and sixteen, on or before which date the City shall have Completed and placed in operation the outfall sewer and sewage treatment works and stand ready to require Connections to the municipal sanitary sewer system.

Second: This permit is issued under all relevant conditions of former permits relative to sewerage issued to the City of York.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

Samuel G. Dixon,
Commissioner of Health.

Harrisburg, Pennsylvania.
December thirty first, nineteen hundred and fifteen.

Department of Health Commonwealth of Pennsylvania

Issued upon unanimous agreement of the Governor, Attorney General and Commissioner of Health

State of Pennsylvania,
County of Dauphin } ss: On the 31st day of December in the year one thousand nine hundred and fifteen before me the

subscribed a Notary Public, came the above named Samuel G. Dejon, and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and Notarial Seal.

My Commission Expires March 9th, 1919.

H. A. Douglas Notary Public Harrisburg, Pa.

H. A. Douglas
Notary Public

Recorded January 10th A. D. 1916.

Edward P. Newman Recorder.

129 Charles Gerber Est.
To
Arabella A. Gerber.

Among the records and Proceedings filed and entered of Record in the Orphans' Court of the County of York and State of Pennsylvania, the following appears to wit:-

To the Honorable the Judges of the Orphans' Court of York County, Pennsylvania.

The petition of Arabella A. Gerber, respectfully represents That she is the widow of Charles Gerber, late of the city of York, York County, Pennsylvania, deceased, that Charles Gerber, late of the city of York, York County, Pennsylvania, died testate on the 15th day of December A. D. 1915, leaving his last will and testament which since his death has been duly probated and remaining of record in the office of the Register of wills of York County, Penna.

That your petitioner hereby files her election in Your Honorable Court, to take against the provisions of the last will and testament of Charles A. Gerber, her deceased husband, and does hereby waive the devise and bequests made to her by the said last decedent in his last will and testament, and hereby elects to take the share of the said estate coming to her under the intestate laws of the Commonwealth of Pennsylvania, in accordance

	Eva Williams,	Jacobus, "
	Spurgeon Leber,	Jacobus, "
	Helen Wireman,	York, "
	Minnie Climsky,	York Haven, "
	Francis Strine,	York, "
	Elizabeth Good Flaig,	York, "
	Adam H. Hamme,	York, "

6. The said corporation is to be managed by a Board of Directors consisting of (12) members and the names and residences of these chosen as such for the first year are:

Names.	Addresses.
Elizabeth Good Flaig,	York Pa.
Eva L. Williams,	
Names. (Con)	Addresses.
Helen A. Wierman,	York Pa.,
Miriam Little,	Dover, Pa.,
Betty Spyker,	York, Pa.
Myrtle Brown,	York Pa.,
Helen Keeney,	York Pa.
Minnie Climsky,	York Haven, Pa.
Joseph Tassia,	York Pa.,
John F. Larkin,	
Spurgeon Leber,	
Adam H. Hamme,	

7. The said corporation has no capital stock, and the yearly income of the said corporation shall not exceed Ten thousand Dollars ($10,000.00) ; and shall be derived from dues paid by the members, and receipts from entertainments by the members.

Witness OUR HANDS AND SEALS this 6" day of March A.D. 1922.,

Elizabeth Good Flaig,
John F. Larkin,
Joseph Tassia.

State of Pennsylvania)
County of York) ss

Before me, the undersigned An Alderman in and for said County and State, personally appeared Elizabeth Good Flaig , John Larkins, and Joseph Tassia, all of whom are subscribers to the above and foregoing petition of incorporation, and in due form of law severally acknowledge the same to be their act and Deed.

Witness my hand and official seal, this 6th day of March A.D. 1922.

Edward J. Loucks, Alderman, 11th Ward, York City, Pa.

Edward J. Loucks,
Alderman,
My Commission Expires the First Monday in January 1924.,

AND NOW TO WIT, June 5, A.D. 1922, the within certificate of incorporation having remained on file in the office of the Prothonotary of York County, Pennsylvania, since the 13th day of March, 1922, being the day on which publication of notice of intended application was first made as appears by the record, and due proof of publication having been made, I do hereby certify that I have examined the said instrument and find it in proper form and within the purposes named in the first class of corporations specified in Section Two of the Act of Assembly, approved April 29th , 1874 and said purposes are lawful and not injurious to the community.

IT IS, THEREFORE, ORDERED AND DECREED that the said charter be and the same is, hereby approved and upon the recording of the same and its endorsements and this order in the office of the Recorder of Deeds for York County, Pennsylvania, the subscribers thereto and their associates shall thenceforth be a corporation for the purposes and upon the terms and under the name therein stated.

By the Court.
Nevin M. Wanner P. J.

By the Court.
N. S. Ross,
Judge.,
W. H. Snyder,
Prothy.

June 5, 1922.,

Charter approved, See decree of Court,
Wanner, P. J.
Hoober.

#20269.

Permit relative to Sewerage.

To the City Council of York,
York County, Pennsylvania.

Commonwealth of Pennsylvania, Department of Health,
Harrisburg.

On May twenty-fifth , one thousand nine hundred and twenty-two, an application was received from the city of York, York County, requesting approval of plans of additions to existing sewage treatment works, in accordance with the provisions of the Act of Assembly approved April twenty-second, one thousand nine hundred and five, entitled "An Act to Preserve the Purity of the Waters of the State, for the Protection of the Public Health".

The plans and other data submitted with the application has been examined and a field inspection made by the Engineering Division of the State Department of Health.

The Chief Engineer of the Department of Health has studied the report of these investigations and has recommended the issuance of a permit under certain conditions and stipulations deemed necessary from the point of view of the present and future needs of the city of York and the general interests of the public health.

The Governor, the Attorney General and the Commissioner of Health, after reviewing and considering the report and study of the Chief Engineer of the State Department of Health, have unanimously agreed that the general interests of the public health will be subserved by approval of plans of additions to existing sewage treatment works, under certain conditions.

Approval is therefore hereby given of plans of additions to existing sewage treatment works as shown on a folio of plans marked sheets one to eight, bearing the title of "York,Pa". Extensions to Sewage Disposal Works"., all of which bear the signature of Fuller and McClintock, Engineers, dated May one thousand nine hundred and twenty-two, and received in the office of the State Departmane of Health on May twenty-fifth, one thousand nine hundred and twenty-two, and a permit issued therefor, subject to the following conditions:-

FIRST: All relevant conditions of prior sewerage permits issued to the city of York shall be continued in full force.

SECOND: During construction no radical changes shall be made from the plans approved herein unless the municipality shall first submit the proposed revision to the State Department of Health and receive written approval thereof.

THIRD: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans as herein approved or amended and with the conditions of this permit.

FOURTH: The various structures and apparatus of the sewage treatment works of the city of York shall be maintained in proper condition so that it will individually and collectively perform the functions for which they were designed.

FIFTH: Screenings and sludge shall be disposed of in a sanitary manner to the satisfaction of the State Department of Health.

SIXTH: The basin or reservoir for the purpose of providing a period of contact between the sewage effluent and the chemical germicide shall be redesigned so as to at maximum rates of sewage flow provide a minimum nominal retention period of ten minutes.

SEVENTH: The municipality shall adopt and enforce the necessary measures to cause the discontinuance of discharge of untreated sewage from private sewers within the city of York to the waters of the State and to cause such sewage to be conveyed through the public sewers of the municipality to the sewage treatment works.

This requirement is in accordance with the fifth condition of the sewerage permit issued to the city of York under date of June fourteenth, one thousand nine hundred and seven.

EIGHTH: If, at any time the sewerage system of the municipality or any part thereof or the discharge of sewage therefrom, shall have created a public nuisance or become a menace or prejudicial to public health, the municipality shall forthwith adopt such remedial measures as the State Department of Health may advise or approve.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

By Department of Health of Commonwealth of Penna.,

Edward Martin,
Commission of Health.

Harrisburg, Pennsylvania,
August thirtieth, one thousand nine hundred and twenty-two.

ISSUED UPON UNANIMOUS AGREEMENT OF THE GOVERNOR, ATTORNEY GENERAL AND COMMISSIONER OF HEALTH.

State of Pennsylvania)
County of Dauphin) SS.

On the 30th day of August in the year one thousand nine hundred and twenty-two, before me, the Subscriber, a Notary Public , came the above named Edward Martin and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

W. H. Charter, Notary Public, Harrisburg, Pa.,

Recorded Sept. 6th, 1922.,
J.Albert Gross, Recorder.,

W. H. Charters,
Notary Public.
Notary Public, 430 So. 15th St. Harrisburg,Pa.,
Commission expires March 9th, 1923.,

#70266.

Commonwealth of Penna.)
to)
Rudolph Barnes, Inc.,)

CHARTER.

To the Governor of the Commonwealth of Pennsylvania.

Sir:

In compliance with the requirements of an Act of the General Assembly of the Commonwealth of Pennsylvania, entitled "An act to Provide for the incorporation and regulation of certain corporations,"-------

---------- approved the 29th day of April A.D. 1874, and the several supplements thereto, the undersigned, all of whom are citizens of Pennsylvania, having associated themselves together for the purpose hereinafter specified, and desiring that they may be incorporated, and that letters patent may issue to them and their successors according to law, do hereby certify:

1st. The name of the proposed corporation is "Rudolph Barnes, Incorporated".

2d. Said corporation is formed for the purpose of manufacturing and selling, wall hangings of paper and allied materials.

3d. The business of said corporation is to be transacted in Spring Garden Township, York County, Pennsylvania, and inthe City of York, Pennsylvania.

4th. Said corporation is to exist perpetually.

5th. The names and residences of the subscribers and the number of shares subscribed by each are as follows:

Name.	Residence.	No. of Shares.
Rudolph Barnes,	162 E. Market St. York Pa.,	two hundred forty-eight,
Helen M. Barnes,	162 E. Market St. York Pa.,	one
John H. Timmis,	825 W. Poplar St. York Pa.,	one

6th. The number of directors of said corporation is fixed at three and the names and residences of the directors who are chosen directors for the first year are as follows:

Name.	Residence.
Rudolph Barnes,	162 E. Market St. York Pa.,
Helen M. Barnes,	162 E. Market St., York Pa.,
John H. Timmis,	825 W. Poplar St., York Pa.,

7th. The amount of the capital stock of said corporation is $25,000.00 divided into 250 shares at the par values of $100.00 , and $2,500.00, being ten per centum of the capital stock, has been paid in cash to the Treasurer of said corpotation , whose name and residence are:

Rudolph Barnes, 162 E. Market St., York, Pa.,

Rudolph Barnes, (seal)
Helen M. Barnes, (seal)
John H. Timmis, (seal)

State of Pennsylvania)
County of York) SS

Before me, a Notary Public in and for the county aforesaid personally came the above named, Rudolph Barnes, Helen M. Barnes , and John H. Timmis, who in due form of law, acknowledged the foregoing Instrument to be their act and deed for the purposes thereon specified.

Witness my hand and Seal of office the eighteenth day of August, A.D. 1922.,

Franklin M. Beecher,
Notary Public.
Commission expires at the end of next session of Senate.

Franklin M. Beecher, Notary Public, York Pa.,

State of Pennsylvania)
County of York) SS

Personally appeared before me, this eighteenth day of August, A.D. 1922, Rudolph Barnes, Helen M. Barnes and John H. Timmis, who being duly sworn, according to law, depose and say that the statements contained in the foregoing instrument are true.

Sworn and subscribed before me, the day and year aforesaid,

Franklin M. Beecher,
Notary Public.
Commission expires at the end of next session of senate.

Franklin M. Beecher, Notary Public, York Pa.,

Rudolph Barnes,
Helen M. Barnes,
John H. Timmis.

EXECUTIVE CHAMBER.

Harrisburg, Aug. 30-1922.

To the Secretary of the Commonwealth:

Having examined the within application and found it to be in proper form, and within the purposes of the class of corporations specified in section two of the act, entitled, "An act to provide for the incorporation and regulation of certain corporations," approved April 29th, A.D. 1874, and the several supplements thereto, I hereby approve the same , and direct that letters patent issue according to law.

Wm. C. Sproul.
Governor.

In witness whereof said grantor has hereunto set his hand and seal the day and year first above written.

Sealed and Delivered
in the presence of
Edward A. Michael

Charles K. Arendorff (Seal)

State of Pennsylvania } ss:
County of York }

On this 10th day of March A.D. 1915 before me a Notary Public in and for County and State personally came the above named Charles K. Arendorff (Widower) and acknowledged the foregoing Deed to be his act and deed and desired the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

10 Cent Stamps E. A. M. March 10, 1915

Edward A. Michael Notary Public Hanover Pa.

Edward A. Michael
Notary Public

Recorded Mar. 11, 1915
August Lonneman Jr. Recorder

13290 Comm of Penna
To
City of York

Commonwealth of Pennsylvania
Department of Health.
To the Mayor and City Council
York, York County, Pennsylvania.

On February twenty fourth nineteen hundred and fifteen the city of York, York County, Pennsylvania, made application for approval of Plans for works for the partial treatment of the sewage of the city.

Whereupon the Governor, Attorney General and Commissioner of Health after considering the matter have unanimously agreed that the proposed works for the partial treatment of the sewage

from the city will subserve the general interests of the public health.

Therefore I, Samuel G. Dixon, Commissioner of Health of the Commonwealth of Pennsylvania do hereby and herein approve the plans for the works for the partial treatment of the sewage of the city and issue a permit therefor subject to the following conditions.

First: All the relevant conditions and stipulations of the previous permits pertaining to the sewer system of the city shall remain and be in full force and effect.

Second: Prior to construction of the works the city shall submit for approval plans for the addition of the chemical germicide to the effluent from the Imhoff tanks and for the construction of a sedimentation basin to provide a contact period of not less than fifteen minutes duration between the disinfectant and the effluent from the tanks. The purpose of the chemical germicide is to destroy the dangerous bacteria contained in the sewage and the addition of this germicide at the influent end of the tanks does not offer a guarantee based upon successful experience that this object will be satisfactorily accomplished. If the city desires to maintain the apparatus in service for the addition of the germicide at the influent end of the tanks as an experimental procedure the State will offer no objection provided that the other construction herein required has been completed and is ready for use.

Third: The city shall on or before December thirty first nineteen hundred and fifteen have constructed and placed in operation the outfall sewer, pumping station and sewage treatment works herein approved for sedimentation of the

sewage and treatment with a germicide which will include the construction of sludge beds and the installation of apparatus for the introduction of a germicide. Upon completion of the works the city shall file in the office of the State Department of Health detail plans of the works as actually constructed.

Fourth: All roof and storm water shall be excluded from the sewers hereafter to be built. The sewers shall be used for sanitary purposes only and the city shall wherever so required exclude from the system all storm and roof water which may be admitted to the sewer system at the present time. The purpose of this step is to reduce the amount of liquid carried to the sewage treatment works to a practicable minimum and its proper fulfillment by the city will result in a decreased maintenance cost of the treatment works. It shall not however be construed to mean a permit to discharge sanitary sewage from existing or contemplated private or municipal sewers untreated into State waters nor exclude such trivial wastes as may be properly cared for in the sewage treatment works.

Fifth: No pathogenic material from any laboratory shall be discharged into the sewer system. The proper authorities shall cause these wastes to be destroyed on the premises.

Sixth: Upon completion of the sewage treatment works and the beginning of use of the sanitary sewer system, the city shall by means of suitable ordinance or regulation bring about as rapidly as practicable the disconnection of all properties from existing public or private sewer systems discharging into State waters and a connection of the same with the comprehensive

municipal system to the end that all discharge of sewage into State waters within the municipal territory of the city of York, excepting through the treatment works hereinafter called.

Seventh: The sewage treatment works shall be operated for at least one year after completion under the responsible supervision and direction of the expert who designed it or some one equally competent to perform this service during which time the city officials will have opportunity to become thoroughly versed in the proper operation and maintenance of the plant.

Eighth: Daily records of the operation of the sewer system and sewer treatment works shall be kept in such manner as satisfactory to the State Department of Health and copies thereof shall be filed weekly in the office of the said Department. The city shall make bacteriological determinations, simple chemical and mechanical tests of the sewage and of the effluent from the tanks at intervals sufficient to determine the efficiency with which the plant is operating and copies of the results of such tests shall be incorporated in the weekly reports of operation herein required.

Ninth: Upon completion of the treatment works as herein approved, the State Department of Health shall be notified in order that a representative may be present at the initial test of the plant should it appear necessary or desirable.

Tenth: This permit to discharge partially treated sewage into waters of the State shall cease on December thirty first nineteen hundred and seventeen or before which time the city shall have constructed and placed in operation the remaining portions of the sewage treatment plant to effect as much through modification of the sewage than that

secured by sedimentation and treatment by a chemical germicide unless the State authorities shall hereafter determine that the general interests of the public health would be subserved by granting a further extension of time for the discharge of partially treated sewage into State waters.

Eleventh: If at any time the sewer system the sewage treatment works or any part thereof or the discharge of partially treated sewage into State waters shall be become a nuisance or menace to public health then remedial measures shall be undertaken by the city as the State Department of Health may advise or suggest.

It is required by law that this permit or a true copy of it shall be recorded in the office of the Recorder of Deeds for York County.

Department of Health Commonwealth of Pennsylvania

Samuel G. Dixon
Commissioner of Health.

Harrisburg, Pennsylvania, March tenth, nineteen hundred and fifteen.

By Agreement of the Governor, Attorney General and Commissioner of Health.

State of Pennsylvania } ss:
County of Dauphin }

On the 10th day of March in the year one thousand nine hundred and fifteen before me the subscriber a Notary Public came the above named Samuel G. Dixon and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and Notarial seal.

A. Coleman Sheetz
Notary Public
Harrisburg Pa.

A. Coleman Sheetz
My commission expires Feb. 21, 1919.

Recorded March 12, 1915

August Sonneman Jr. Recorder.

in and for the County of York Pennsylvania, in Record Book 8-A, page 198.

AND the said party of the first part for himself, his heirs executors and administrators doth by these presents, covenant, grant and agree to and with the said parties of the second part their heirs and assigns forever, that he the said party of the first part and his heirs all and singular the hereditaments and premises herein above described and granted or men tioned, and intended so to be with the appurtenances unto the said parties of the second part their heirs and assigns, against him the said party of the first part and his heirs and against all and every other person or persons whomsoever lawfully claiming or to claim the same or any part thereby by from or under him or them or any of them shall and will warrant and for ever defend.

IN WITNESS WHEREOF the said party of the first part to these presents has hereunto set his hand and seal Dated the day and year first above written.

SIGNED Sealed and delivered in the Presence of

George May Kain Jr., Charles H. Moore (Seal)

Elmora E. Heilman

RECEIVED the day of the date of the above Indenture of the above named Raymond A. Bentzel and Lawrence W. Glatfelter, the sum of One thousand eight hundred ($1,800.00) Dollars in full of the consideration money therein mentioned.

Charles H. Moore.

STATE OF PENNSYLVANIA)
: SS.
COUNTY OF YORK)

On the twenty seventh day of November Anno Domini 1933, before me, the subscriber, a Notary public of said State residing in the City of York, in said County, personally appear ed the above named Charles H. Moore, single man, and in due form of law acknowledged the above Indenture, to be their act and deed, and desired the same might be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

George May Kain Jr., Notary Public
My Commission Expires Jan 31, 1937.

George May Kain Jr Notary Public, York Penna.,

The residence of the within named grantee is 1018 N. Goo St., York Pa.,
George May Kain Jr., on Behalf of the Grantee.
Recorded November 27, 1933., John W. Young, Recorder.

22667 :
Commonwealth of Penna., : COMMONWEALTH OF PENNSYLVANIA, Department of Health,
to : Harrisburg,
City of York, : To the Mayor and City Council of
: York, York County,
: Pennsylvania.

On October thirtieth, one thousand nine hundred and thirty three an application was received in the Harrisburg Office of the Pennsylvania Department of Health from the City of York, York County, requesting approval of the construction of a gate chamber, bypass, screen house, and a mechanical self cleaneing bar screen and shredder to be located at the York Sewage treatment works, with a sluice gate to be installed on the bypass and sealed by the Pennsyl vania Department of Health and subject to the Department's regulations, the bypass to be used for by passing sewage at times of repairs to the mechanical screen and in the event that the pumps in the pump station fail at times of high water the application having been made in accordance with the provisions of the Administrative Code approved April ninth, one thous and nine hundred and twenty nine.

Under authority of a resolution of the Sanitary Water Board adopted July seventeenth, one thousand nine hundred and twenty three, the data submitted with the application have been

examined by the Bureau of Sanitary Engineering of the Department of Health which indicate that York has an existing sewage treatment works providing primary treatment, to which the sewage of the City is conveyed through a five foot outfall sewer, that at the plant end of this outfall sewer there exists a coarse bar screen located in a screen pit in the dike surrounding the treatment works, that this pit does not offer satisfactory working conditions in addition to its involving a large amount of manual cleaning of the screen and that in order to reduce this labor, to afford better working conditions for the plant operators and more efficient cleaning of the screen, and disposal of screenings, the City now proposes to reconstruct its existing screen chamber to install a mechanically cleaned bar screen of the straight line type, and a mechanical shredder to which the screenings will be discharged and by which they will be communicated and returned to the flow of raw sewage prior to its entry to the plant units and to construct a suitable screen chamber for housing the apparatus, and a concrete gate chamber provided with a sluice gate controlled bypass to Codorus Creek, whereby the flow of sewage may be controlled and sent either through the screen chamber or in the event of necessity for repairs to the screen or failure of the pumps at the sewage treatment works at times of High water, to permit the temporary bypassing of the City's sewage to Codorus Creek.

THE STUDY FURTHER SHOWS THAT THE PROPOSED RECONSTRUCTION OF the screen chamber, the mechanically cleaned screen and the mechanical Shredder, appear to be of satisfactory design and to comprise equipment already in successful use, that, however certain details of the proposed mechanical equipment have not as yet been submitted, that the proposed screen house is in general conformity with the existing buildings at the sewage treatment works; that the proposed gate chamber is of generally satisfactory design; that it is proposed to have the Pennsylvania Department of Health seal the sluice gate on the bypass and to only use this bypass as an emergency outlet and in accordance with the regulations of the Pennsylvania Department of Health, and that approval can be given to the proposed reconstruction.

THE STUDY ALSO INDICATES that the City desires to undertake the construction of the proposed mechanical screen, and appurtenances at the earliest practicable date and that therefore, it is desirable that prompt action be taken upon the City's application.

THE BUREAU OF ENGINEERING has recommended approval of the proposed reconstruction to permit the installation of a mechanically cleaned bar screen at the City's sewage treatment, works, and of the gate chamber and bypass and the issuance of a permit therefor, subject to certain conditions.

AS SECRETARY of Health, I have reviewed the recommendations of the Bureau of Sanitary Engineering and have approved the same. Therefore acting under the ad interim powers conferred upon the Department of Health, under paragraph A. Section 2109, of the Administrative Code approved April ninth one thousand nine hundred and twenty nine, approval is hereby given of the proposed reconstruction of the existing screen chamber and the installation of a mechanically cleaned coarse bar screen with its appurtenances, including a concrete gate chamber, and bypass, sewer to Codorus Creek as these are shown upon a folio of five plans the first being a photostat entitled: "Proposed Self Cleaning Bar Screen, and Shredder for City of York Pa., The Jeffrey M'f'g. Co Columbus, Ohio U.S.A. conveying Engineering Department Sheet, A. No 22679" two being blue prints bearing the title:"York Pa., Sewage Disposal Works Screen house October 1933", one a blue print entitled "York Pa., Sewage Disposal works General Layout Plan of Improvements to be made Aug. 21, 1933", and the fifth a blue print entitled "York Pa., Sewage Disposal Works Gate Chamber, for 36" By Pass to Codorus River, October 1933". the Photostat being a drawing prepared by the Jeffrey Manufacturing Company of Columbus Ohio, and the blue prints having been prepared in the office of City Engineer C.F.W. Wallow, All plans having been received in the Harrisburg Office of the Pennsylvania

Department of Health on October thirtieth one thousand nine hundred and thirty three; and as proposed in the application; and a permit is issued therefor, subject to the following conditions;

FIRST: All revelant conditions of prior sewerage permits issued to the City of York shall be continued in full force.

SECOND: During construction no radical changes shall be made from the plans herein approved unless the minicipality shall first submit the proposed revision to the Sanitary Water Board and receive written approval thereof.

THIRD: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans as herein approved or amended and with the conditions of this permit.

FOURTH: The approval herein granted is specifically limited to the general scheme and to such details as are shown upon the plans submitted with the application. Prior to the construction of the mechanical equipment all necessary additional details of the installation shall be submitted to and approved by the Bureau of Sanitary Engineering of the Pennsylvania Department of Health.

IN this connection attention is called to the necessity of showing the details concerning the manner of discharge of the screenings to the feeding hopper of the shredder; of the point of discharge of the comminuted solids from the shredder to the influent line to the sedimentation tanks; and of the ventilating system.

ALSO, attention is directed to the necessity of providing proper water lines under pressure for the cleansing of the screen house and appurtenances and to the possibility of more convenient arrangements for the placing and removing of the stop planks in the gate chamber.

FIFTH, when the herein approved sewage treatment works are constructed and before they are placed in operation the city of York shall notify the State Department of Health so that an inspection of the works may be made by a representative of the Department.

SIXTH; The screenings shall be handled so that a nuisance is not created and shall be disposed of in a sanitary manner to the satisfaction of the Sanitary Water Board.

SEVENTH: Daily records of the operation of the sewage treatment works shall be kept on forms satisfactory to the State Department of Health, and copies of such records shall be filed at weekly intervals in the office of the said Department.

THESE reports shall include the quantity of sewage treated and the results of such tests and analyses as the State Department of Health may deem necessary for proper control of the operation of the sewage treatment works.

EIGHTH: The sluice gate on the bypass from the gate house to Codorus Creek shall be sealed by the Pennsylvania Department of Health and this shall shall be broken only at such times as repairs to the screen, failure of the pumps at the sewage treatment works, or other actual emergency makes such break of the seal necessary.

THE City shall promptly notify the Department of Health of such breaking of the seal, giving the reasons therefor, and where the use of the bypass becomes necessary for repair of equipment or for such other purposes as will permit advance notice of such use of the bypass to be given. the City shall so notify the Department in advance of such use.

NINTH: If at any time the sewerage system of the municipality, or any part thereof, or the discharge of sewage therefrom, shall have created a public nuisance or become a menace or prejudicial to the general interests of the public health, the municipality shall forthwith adopt such remedial measures as the Sanitary Water Board may advise or approve.

Nothing herein contained shall be construed to be an intent on the part of the Sanitary Water Board to approve any act made or to be made by the municipality inconsistont with its lawful powers or with existing laws of the commonwealth regulating sewerage and the practice of professional engineering.

IT IS required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County,

Commonwealth of Pennsylvania Sanitary Water Board.

By Theodore B. Appel M. D.
Secretary of Health,
Chairman, Sanitary Water Board.

Attest, J. R. Hoffert, Civil Engineer
Acting Secretary, Sanitary Water Board.

HARRISBURG PENNSYLVANIA
November third, one thousand nine hundred and thirty three.

STATE OF PENNSYLVANIA :
: SS.
COUNTY OF DAUPHIN :

On the 3rd, day of November in the year one thousand nine hundred and thirty three before me, the Subscriber, a Notary Public came the above named Theodore B. Appel and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

WITNESS my hand and Notarial seal the d ay and year aforesaid.

Albert Jenkins, Notary Public
Harrisburg, Pa.

Albert Jenkins, Notary Public
My Commission Expires Nov, 16, 1935
Recorded December 6, 1933.
John W. Young, Recorder.

22591.

William E. Taylor al :
to :
Walter J. Taylor, :

$3.50 Revenue 10.10.33 W.E.T.

THIS DEED Made the tenth day of November in the year of our Lord one thousand nine hundred and thirty three,

BETWEEN William E. Taylor, and Beulah G. Taylor, h his wife, Mabel A. Klahold and Martin E. Klahold her husband, Edna C. Stabley and John Stabley her husband, Earl W. Taylor and Fay Taylor his wife, Paul Taylor and Thelma M. Taylor, his wife and Ella S. Frey and Wilbert Frey her husband, they being all of the heirs and parties interested, except the Grantee hereto) in the estate of Annie A. Taylor, late of Red Lion Borough, York County, Pennsylvania deceased, Grantors, and Walter J. Taylor, of Red Lion Borough, County and State aforesaid, Grantee:

WITNESSETH, that in consideration of thirty five hundred ($3500.00) Dollars in hand paid the receipt whereof is hereby acknowledged the said grantors do hereby grant and convey to the said grantors do hereby grant and convey to the said grantee,

ALL the followint described lot of ground situate in the Borough of Red Lion, York County, Pennsylvania, bounded and limited as follows to wit:

BEGINNING at a point on the east side of South Main street at the intersection of south Main street and Taylor Street, thence in a Northerly direction along the curbline of said South Main street one hundred twenty four feet to another point on said curbline and corner of land of William E. Taylor, thence in an Easterly direction along land of said William E. Taylor one hundred fifty feet to a point on the Western curbline of a public alley; thence

Esther Doll Seal Notary Public York County, York, Pa.

Esther Doll (Seal)

My Com. expires Mar. 5-1937.

Recorded October 10, 1935, Howard M. Rohrbaugh, Recorder.

9654

Sanitary Water Board : To the Mayor and City Council of

to : York, York County

York City : Pennsylvania

On June tenth, one thousand nine hundred and thirty-five an application was received in the Harrisburg Office of the Pennsylvania Department of Health from the city of York, York County, requesting a permit for the construction of sanitary sewers in certain streets as set forth in detail in the application and its accompanying plans; and on August second, one thousand nine hundred and thirty-five another application was received in the same office from the city of York requesting approval of additional sewers in certain streets as set forth in detail in that application and its accompanying plans; all the proposed sewers to comprise extensions to the existing sewer system of the city of York, and the sewage from the proposed sewers to be discharged into the city's existing sewage treatment works for treatment prior to its discharge into the waters of the State; the application having been made in accordance with the provisions of The Administrative Code approved April ninth, one thousand nine hundred and twenty-nine.

Under authority of a resolution of the Sanitary Water Board adopted July seventeenth, one thousand nine hundred and twenty-three, the data submitted with the applications have been examined by the Bureau of Sanitary Engineering of the Department of Health which indicate that in the first application aforesaid the city requested approval of sewer extensions in certain named streets grouped as "Exhibit E" to"Exhibit S" inclusive, comprising extensions to the existing sewer system generally in accordance with the comprehensive plan of sewerage previously approved or comprising satisfactory modifications or extensions of this system to meet present conditions; that in the second application the city desires that this application supersede the first application, because of the supersedure of the Emergency Relief Administration by new federal authority; and that the city in the second application includes the sewers for which approval was requested in the first application and in addition asked for approval of certain other sewer extensions of similar character, the entire lot of sewers being designated as "Exhibit A" to "Exhibit F" inclusive, "Exhibit H" to "Exhibit U" inclusive, and as "Exhibit G-V", "Exhibit G-W", and "Exhibit G-X".

The study further indicates that the city desires to construct the proposed sewers with federal financial assistance; that these sewers are to be constructed progressively as several separate projects; that because of the generally satisfactory character of the proposed sewers the Sanitary Water Board, in accordance with the recommendation of the Bureau of Sanitary Engineering, approved by the Secretary of Health, authorized the issuance of a permit approving the first proposed sewers; and that subsequently, following receipt of the second application, the Secretary of Health, acting under the ad interim powers conferred upon the Pennsylvania Department of Health by the Administrative Code, in order to expedite the city's application for federal assistance, gave ad interim approval of the additonal sewers included in the second application aforesaid and authorized the issuance of a permit therefor.

Therefore, approval is hereby given of the proposed sewer extensions as these are shown upon a folio of twenty-one plans bearing the following titles: "York, Pa. Map of 14th

Ward Sewer Lines October 1933", "York, Pa. Map of Sewer Lines October 1933", "Plan showing Sanitary Sewers draining the 15th Ward York Penna July 1935", "Plan & Profile of Proposed Sanitary Sewer on Arlington Road between Merion & Irving Roads 1935", "York, Penna. Proposed 8" San. Sewer on Irving Road Queen St. to Rathton Road 15th Ward 1935", "York, Pa. Proposed 8" San. Sewer on McKenzie Street Merion Road to Arrow Al. 15th Ward Jan. 1935", York, Penna. Proposed 8" Sanitary Sewer on S. Queen Street Springdale Ave. to Windsor St. 15th Ward April 1935", "York, Pa. Proposed 8" San. Sewer on Springdale Road Queen St. to Pine St. 15th Ward Jan. 1935", "York, Penna. Proposed 8" San. Sewers on Arlington St. & Kain Ay. 15th Ward July 1935", "York, Penna. Proposed 8" Sanitary Sewer on Peyton Road Queen St. to Arlington Road 15th Ward July 1935", "York, Pa. 12th Ward Trunk Sewer draining North Eastern Section of City Jan 1931 Revised May 1935", "York, Penna. Proposed 8" Sanitary Sewer on York Street State St. to Sherman St. 12th Ward May 1935", "York, Penna. Proposed 8" Sanitary Sewer on Diehls Mill Road Hay St. to Chestnut St. 12th Ward May 1935", "York, Penna. Proposed 8" Sanitary Sewer on Center Street Hay St. to Walnut St. 12th Ward May 1935", "York, Penna. Proposed 8" San. Sewer on Eberts Lane Hay St. to Walnut St. 12th Ward May 1935", "York, Penna. Proposed 8" Sanitary Sewer on Hartman St. Wallace Alley to Phila. St. 12th Ward May 1935", "York, Penna. Proposed 8" & 10" San. Sewer on Philadelphia St. Hartman St. to East St. 12th Ward May 1935", "York, Penna. Proposed 8" Sanitary Sewer on East St. Phila. St. to Clarke Alley 12th Ward May 1935", "York, Penna. Proposed 8" San. Sewer on Harrison St. Philadelphia St. to Clarke Al. 12th Ward May 1935", "York, Pa. Proposed 8" San. Sewer on Pennsylvania Ave. Belvidere Ave. to Carlisle Ave. 14th Ward Jan. 1935", and "York, Pa. 8" San. Sewer Exten Penna. Ave., Hawthorne & Maryland 14th Ward Revised May 1935"; the plans having been received in the Harrisburg Office of the Pennsylvania Department of Health on August second, one thousand nine hundred and thirty-five; and as proposed in the application; and a permit therefor is hereby issued to the city of York, York County, subject to the following conditions:

FIRST: All relevant conditions of prior sewerage permits issued to the city of York shall be continued in full force.

SECOND: During construction no radical changes shall be made from the plans herein approved unless the municipality shall first submit the proposed revision to the Sanitary Water Board and receive written approval thereof.

THIRD: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans as herein approved or amended and with the conditions of this permit.

FOURTH: No storm water from pavements, areaways, roofs, or other sources shall be admitted to the sewers herein approved, which shall be used exclusively as carriers of domestic sewage and suitable industrial wastes.

FIFTH: During construction of the herein approved sewers, proper care shall be taken to secure tight joints in order to reduce the infiltration of ground water to a minimum, and also to secure straight grades and alignment and smooth interior surfaces in order to deliver the sewage to the outlet in as fresh a condition as possible.

SIXTH: A sufficient number of manholes shall be constructed in suitable locations to provide adequate means for proper inspection and thorough cleansing of the sewers. Generally they will be required at junctions, summit ends, changes of line and grade and on straight lines at intervals depending upon the size and grade of the sewer, but in no case exceeding six hundred feet measured along the line of the sewer.

SEVENTH: The public sewers of the municipality shall be maintained by repair when necessary and kept free from deposits by flushing or other proper means of cleansing in

order that they may at all times afford a proper means for the prompt conveyance of sewage.

EIGHTH: On or before December thirty-first of each year the city shall file in the office of the State Department of Health satisfactory plans of all sewers constructed during that year, together with any other information in connection therewith that may be required, in order that the Sanitary Water Board may at all times have full information as to the extent and use of the system.

NINTH: Within one month the city of York shall submit to the Sanitary Water Board a report setting forth the progress made by that date toward complying with the conditions of the sewerage permits issued to the city by the Board.

TENTH: If at any time the sewerage system of the municipality or any part thereof or the discharge of sewage therefrom, shall have created a public nuisance or become a menace or prejudicial to the general interests of the public health, the municiplaity shall forthwith adopt such remedial measures as the Sanitary Water Board may advise or approve.

Nothing herein contained shall be construed to be an intent on the part of the Sanitary Water Board to approve any act made or to be made by the miniciplaity inconsistent with its lawful powers or with existing laws of the Commonwealth regulating sewerage and the practice of professional engineering.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

SANITARY WATER BOARD

BY:EDITH MacBride Dexter

Edith MacBride-Dexter, M. D.,
Secretary of Health,
Chairman.

ATTEST: J. R. Hoffert

J. R. Hoffert
Civil Engineer
Acting Secretary

Harrisburg, Pennsylvania
August fifth, one thousand nine
hundred and thirty-five.

STATE OF PENNSYLVANIA)
:SS
COUNTY OF DAUPHIN)

On the 27th day of September in the year one thousand nine hundred and thirty-five, before me, the Subscriber, a Notary Public, came the above named EDITH MACBRIDE-DEXTER and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

Harry D. Dando
Notary Public
Dauphin County,
Wiconisco,
Pa.

Harry D. Dando N. P.
Notary Public

My Commission expires March 9, 1939.

Recorded October 11, 1935, Howard M. Rohrbaugh, Recorder.

9662

Daisy A. Landis vir : Mortgage Dated May 20, 1920.

to : Upon Property Situated on East side of South

Annie A. Heckert al : Hartley Street, in the City of York, York County, Pennsyl-

to : vania, known as No. 129 south Hartley Street, bounded on the

Annie A. Heckert, exr. al. : North by a 20 feet wide public alley, on the south by property of Estate of D. Philip Heckert about to be conveyed to Elmer E. Rohrbach, and on the west by south Hartley Street, containing in front on said Street 20 feet and extending in depth eastward 75 feet to said 12 feet wide alley.

shall have the power to appoint Resident Vice-Presidents, Resident Assistant Secretaries, agents and attorneys-in-fact to execute, on behalf of the Company, any and all bonds, undertakings, recognizances, policies, contracts of indemnity, stipulations, underwriting undertakings and other writings obligatory in the nature thereof, and to attach the seal of the Company thereto when required, and to appoint agents and attorneys-in-fact to accept legal process on behalf of the Company and to make appearances on its behalf, and the President or any Vice-President who is also a member of the Board of Directors, or any other Vice-President specially authorized so to do by the Board of Directors, shall have power to revoke any appointment made pursuant hereto and to revoke any and all authority conferred by any such appointment."

And I do hereby further certify that said By-Law was duly adopted as a By-law of FIREMAN'S FUND INDEMNITY COMPANY on the 31st day of October, 1930, and is now in full force and effect.

AND I do hereby further certify that Richard V. Goodwin, who executed the foregoing instrument on behalf of said Company, is and at the time of the execution thereof was Vice-President and duly authorized to so act on behalf of said FIREMAN'S FUND INDEMNITY COMPANY.

IN WITNESS WHEREOF I have hereunto set my hand and affixed the seal of FIREMAN'S FUND INDEMNITY COMPANY, this 15th day of September, 1936.

Fireman's Fund Indemnity Company Incorporated California (Corporate Seal)

R. W. Stewart

Assistant Secretary of
FIREMAN'S FUND INDEMNITY COMPANY

Recorded, September 30, 1936, Howard M. Rohrbaugh, Recorder.

15333

Sanitary Water Board to York City : To the Mayor and City Council of York, York County, Pennsylvania.

On January twenty-fourth, one thousand ninehundred and thirty-six an application was received in the Harrisburg Office of the Pennsylvania Department of Health from the city of York, York County, requesting a permit for the construction of certain sanitary sewers described in a list accompanying the application, the sewage so collected to be discharged into the existing sanitary sewer system of the city and thence through the city's treatment works; the application having been made in accordance with the provisions of the Administrative Code approved April ninth, one thousand nine hundred and twenty-nine.

Under authority of a resolution of the Sanitary Water Board adopted July Seventeenth, one thousand nine hundred and twenty-three, the data submitted with the application have been examined by the Bureau of Sanitary Engineering of the Department of Health which indicate that the city of York has an approved comprehensive plan of sewerage and sewage treatment works which are now receiving flows approximating the design capacity of the plant; that the degree of treatment afforded by the treatment works is insufficient to satisfactorily modify the sewage of the city during the periods of low flow of Codorus Creek; and that the city has been notified to undertake a study of its sewerage needs.

The study further shows that the proposed sewers constitute minor lateral sewer extensions not previously approved in connection with the aforesaid comprehensive plan of sewerage; that the proposed sewers are of generally satisfactory design; that the additional load to be placed upon Codorus Creek by the proposed sewer extensions should not, for the present, materially change conditions in the stream; and that the city desired to undertake the prompt construction of the proposed sewers with Works Progress Administration assistance.

The study also shows that because of the generally satisfactory character of the proposed

sewers and the desirability of expediting the city's construction of the proposed sewers, the Secretary of Health, upon the recommendation of the Bureau of Sanitary Engineering, granted ad interim approval of the proposed sewers, subject to certain conditions, in a letter dated February Fourteenth, one thousand nine hundred and thirty-six.

The Sanitary Water Board at a meeting held on March second, one thousand nine hundred and thirty six, ratified the aforesaid ad interim action of the Secretary of Health and authorized the issuance of a permit to the city of York, York County, in accordance with the recommendations of the Bureau of Sanitary Engineering, approved by the Secretary of Health.

Therefore, approval is hereby given of the proposed sanitary sewer extensions as these are shown upon a folio of twelve plans bearing the following titles: "York, Pa. Map of 14th Ward Sewer Lines October 1935", "York, Pa. Map of Sewer Lines October 1935", "York, Penna. 14th Ward San. Sewers To Be Built on Streets as Shown. Nov. 13, 1935.", "Plan & Profile of Proposed Sanitary Sewer on Springdale Road between Newlin Rd. & S. Queen St. 1935", "Plan & Profile of Proposed Sanitary Sewer on Springdale Road between McKenzie St. & Newlin Rd. 1935", "Plan & Profile of Proposed Sanitary Sewer on McKenzie St. between Marion & Springdale Rds. 1935", "Plan & Profile of Proposed San. Sewer on S. Duke St. Between Springettsbury Ave. & Rathton Rd. 1935", "Plan & Profile of Proposed San. Sewer on Irving Ave. between Queen & Pine Sts. 1935", "Plan & Profile of Proposed San. Sewer on Queen St. & Cadot Ay. 1935", "Plan & Profile of Proposed San. Sewer on Center St. between Hay St. & P. R. R. 1935", "York, Penna. Proposed 8" San. Sewer on Sampson Alley Pine St. West 10th Ward Nov. 14, 1935", and"York, Pa., Proposed 10" San. Sewer on E. Poplar St. Lehman St. to Harrison St. 12th Ward Sept. 7, 1935"; the plans having been prepared by C. F. W. Wallow, City Engineer, and having been received in the Harrisburg Office of the Pennsylvania Department of Health on January twenty-fourth, one thousand nine hundred and thirty-six; as proposed in the application; and a permit therefor is hereby issued to the city of York, York County, subject to the following conditions:

FIRST, All relevant conditions of prior sewerage permits issued to the city of York shall be continued in full force.

SECOND: During construction no radical changes shall be made from the plans herein approved unless the municipality shall first submit the proposed revision to the Sanitary Water Board and receive written approval thereof.

THIRD: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans as herein approved or amended and with the conditions of this permit.

FOURTH: The municipality shall forthwith adopt and enforce an ordinance to require all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State laws, to be connected thereto; also requiring the abandonment of privies and the cleansing and filling of any privy vaults or cesspools or similar receptacles for human excrement on said premises, and also prohibiting any connection from any privy vault or cesspool being made to the public sewer system.

FIFTH: No storm water from pavements, areaways, roofs or other sources shall be admitted to the sewers herein approved, which shall be used exclusively as carriers of domestic sewage and suitable industriel wastes.

SIXTH: During construction of the herein approved sewers, proper care shall be taken to secure tight joints in order to reduce the infiltration of ground water to a minimum and also to secure straight grades and alignment and smooth interior surfaces in order to deliver the sewage to the outlet in as fresh a condition as possible.

SEVENTH: A sufficient number of manholes shall be constructed in suitable locations to provide adequate means for proper inspection and thorough cleansing of the sewers. Generally they will be required at junctions, summit ends, changes of line and grade and on straight lines at intervals depending upon the size and grade of the sewer, but in no case exceeding six hundred feet measured along the line of the sewer.

EIGHTH: The public sewers of the municipality shall be maintained by repair when necessary and kept free from deposits by flushing or other proper means of cleansing in order that they may at all times afford a proper means for the prompt conveyance of sewage.

NINTH: On or before December thirty-first of each year the city shall file in the office of the State Department of Health satisfactory record plans of all sewers as constructed during that year, together with any other information in connection therewith that may be required, in order that the Sanitary Water Board may at all times have full information as to the extent and use of the system, and no sewers or sewerage work shall be constructed except such as is herein approved or has been approved by a prior permit still valid.

TENTH: If at any time the sewerage system of the municipality or any part thereof or the discharge of sewage therefrom, shall have created a public nuisance or become a menace or prejudicial to the general interests of the public health, the municipality shall forthwith adopt such remedial measures as the Sanitary Water Board may advise or approve.

Nothing herein contained shall be construed to be an intent on the part of the Sanitary Water Board to approve any act made or to be made by the municipality inconsistent with its lawful powers or with existing laws of the Commonwealth regulating sewerage and the practice of professional engineering.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

Commonwealth of Pennsylvania Sanitary Water Board

SANITARY WATER BOARD

By: Edith MacBride-Dexter, M. D.
Secretary of Health
Chairman

Attest:
J. R. Hoffert
Civil Engineer
Acting Secretary

Harrisburg, Pennsylvania
March second, one thousand nine hundred and thirty-six.

STATE OF PENNSYLVANIA)
:SS.
COUNTY OF DAUPHIN)

On the 9th day of September in the year one thousand nine hundred and thirty-six, before me, the Subscriber, a Notary Public came the above named EDITH MACBRIDE-DEXTER and duly acknowledged the foregoing permit to be her act and deed and desired that the same might be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

George B. Kirsch Notary Public Cumberland County Lemoyne Pa.

George B. Kirsch
Notary Public

My commission expires March 9, 1939.

Recorded September 30, 1936, Howard M. Rohrbaugh, Recorder.

15335

Annie J. Quickel Estate :
To :
Furnace B. Olewiler ux :

$2.00 Fed. Rev. 9/30/36 S.S.L.
$.90 St. Rev. 9/39/36 S.S.L.

THIS DEED, Made the twenty eighth day of August in the year of our Lord one thousand nine hundred and thirty-six.

BETWEEN George H. Quickel and Cora J. Quickel, his wife, of Windsor Township, Robert C. Quickel and Loretta C. Quickel, his wife of York City, Mary Attelsberger and William H.

STATE OF PENNSYLVANIA)
: SS:
CUMBERLAND COUNTY,) On the 4th day of March in the year One Thousand Nine Hundred and Thirty-two before me, the subscriber, a Notary Public in and for said State and County personally came the above-named John E. Myers and Eunice Ingham Myers, his wife, and they acknowledged the above indenture to be their Act and Deed, and desired the same might be recorded as such.

WITNESS my hand and Notarial seal.

Mildred Hoopy Stone Notary Public Cumberland Co. Lemoyne Pa.

Mildred Hoopy Stone, Notary Public

My Commission Expires March 30, 1935

I HEREBY CERTIFY THAT the precise residence of the within Grantee is New Cumberland R. D. #1 Fairview Township

Robert M. Wagner, Grantee

Recorded November 8, 1941 - Herbert L. Smith, Recorder.

31590.

Sanitary Water Board :
to :
The City of York :

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
SANITARY WATER BOARD
HARRISBURG

SEWERAGE PERMIT

The Sanitary Water Board, which by virtue of The Administrative Code approved June 7, 1923, P. L. 498, and the amendments thereto and of Act approved June 22, 1937, P. L. 1987, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation", hereby issues this permit to the city of York, York County, in response to the city's application, approving subject to certain conditions, proposed sanitary sewer extensions to the existing sewer system of York as these sewers are shown upon three folios of plans. The first folio consists of nine plans, the first two of which bear the titles, "York, Pa. Map Of 14th Ward Sewer Lines", dated October 1937; "York, Pa. Map Of Sewer Lines", dated October 1937; the third of which bears the title, "York, Penna. Sanitary Sewer Extensions On Streets And Alleys In Present City Layout 1938 Plan 1 Of 7 January 31, 1938"; and the remaining six of which plans are designated respectively "Plan 2 of 7" to Plan 7 of 7" inclusive.

The second folio consists of six plans bearing the following titles: "York, Pa. Map Of 14th Ward Sewer Linas", dated October 1938; "York, Pa. Map Of Sewer Lines", dated October 1938; "York, Penna. Sanitary Sewer Extensions On Streets And Alleys In Present City Layout 1938 Plan 1 Of 7", dated January 31, 1938; "Plan & Profile Of Sanitary Sewer On Fahs St. Bet. Conewago & Chanceford Sts. York, Penna.", dated 1938; "Plan & Profile Of Proposed Sanitary Sewer On Tioga St. Bet. Carroll & Chanceford Sts. York, Penna.", dated 1938; the sixth plan being an untitled general plan of the northwestern corner of the city.

The third folio consists of three plans bearing the following titles: "York, Penna. Proposed 8" Sanitary Sewer E. Clarke Alley, West Of Pine Street", dated February 1939; "York, Penna. 8" San. Sewer On Lynch Alley Edison St. To Sherman St. 12th Ward 1938"; "Tracing Showing Sanitary Sewers In York, Penna.", dated Dec. 1938.

ALL of the plans were prepared in the city engineer's office; certain of the plans bear colored crayon designations; and the three folios were all filed in the Harrisburg Office of the Pennsylvania Department of Health, all of the plans of the first folio having been received on February 4, 1938; the first four of the second folio on October 31, 1938 and the last two on October 20, 1938 and all plans of the third folio having been received on April 4, 1939.

This permit is issued subject to the following Special Conditions:

"A" On or before June 30, 1942, the city of York shall submit to the Sanitary Water Board for approval a report and detail plans prepared by a competent and experienced santiary engineer, for units for the complete treatment of the sewage of the city, which is construed to mean units capable of the consistent removal of 85% or more of the organic material contained in the untreated sewage, plus efficient chlorination, and after approval of the said report and plans, the city shall construct the aforesaid units and place them in operation in accordance with such orders as the Board may issue to the city.

And this permit is further subject to the following numbered Standard Conditions of "STANDARD CONDITIONS RELATING TO SEWERAGE" effective April 1, 1940 attached hereto:

1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, 17 and 18.

This permit is issued in response to an application (No. 7285) filed in the Harrisburg Office of the Pennsylvania Department of Health on the Fourth Day of February 1938 and supplemental letters of City Engineer C. F. W. Wallow dated October 18, 1938 and April 4, 1939, and confirms the ad interim approvals issues by the Secretary of Health on February 4, 1938 and October 20, 1938.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

ATTEST:

J. R. Hoffert,
Civil Engineer
Secretary

Commonwealth of Pennsylvania Sanitary Water Board

SANITARY WATER BOARD

By: A. H. Stewart,
Acting Secretary of Health
Chairman

Harrisburg, Pennsylvania.

October 27, 1941

STATE OF PENNSYLVANIA)
: SS
COUNTY OF DAUPHIN)

On the 27th day of October in the year one thousand nine hundred and forty-one, before me, the Subscriber, a Notary Public, came the above named A. H. Stewart, Acting Secretary and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

George B. Kirsch
Notary Public
Cumberland
County
Lemoyne, Pa.

George B. Kirsch, Notary Public

My Commission Expires March 9, 1943

Commissioned in Cumb. Co.

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective April 1, 1940

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans, designs, and other data as herein approved or amended, and with the conditions of this permit.

FOUR: During construction the herein approved sewers shall be so laid and such care and

skill shall be used in their construction as will insure that they conform to the following requirements:

(a) They shall have well-fitted joints made tight to reduce infiltration to a minimum; shall be laid with straight alignment and to true grade; and shall have smooth interior surfaces.

(b) They shall have adequate foundation support by means of the natural soil; or by an approved, especially prepared foundation of piling, concrete cradle, or encasement, or otherwise as conditions require; and their trenches shall be so back-filled that the sewers will have proper structural stability, minimum settlement, and adequate protection against breakage.

(c) To these ends special care shall be taken in the placing of sewers under deep or shallow cover, under heavy loading, in stream crossings, in rock or wet excavations, or under other conditions which impose extra hazards upon their construction.

(d) All concrete used in connection with these sewers and their appurtenances shall be so placed and protected until cured that it will not be injured by water, freezing, drying, or otherwise.

(e) The type and material of both sewer pipe and joint shall be so selected in accordance with actual field and construction conditions, and shall be so incorporated into the work as to conform to the aforesaid requirements.

FIVE: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

SIX: No storm water from pavements, areaways, roofs, or other sources shall be admitted to the sanitary sewers herein approved, which shall be used exclusively as carriers of domestic sewage and suitable industrial wastes.

Storm water shall be admitted only to such sewers as are specifically approved for use as combined sewers.

SEVEN: Attention is directed to the necessity of having a qualified person make proper study of all industrial wastes proposed for discharge to the public sewer system, to determine the degree of preliminary treatment, if any, which is necessary before these wastes may be discharged to the said system.

No industrial wastes shall be discharged to the sewer system which will prejudicially affect the sewerage structures or their functioning, or the processes of sewage treatment, and any permission granted by the permittee for industrial wastes discharge into the sewer system should reserve to the permittee the right to regulate the rate of such discharge or to require such further preliminary treatment as may be necessary, or the exclusion of the said industrial wastes from the sewers, if this be deemed necessary to protect the permittee's interests.

EIGHT: The permittee shall forthwith adopt and enforce an ordinance requiring all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State laws, to be connected thereto; also requiring the abandonment of privies, cesspools or similar receptables for human excrement on said premises; and also

TWENTY-FIVE: The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air, and to the highly toxic character of certain gases arising from such digestion or from sewage in insufficiently ventilated compartments or sewers. Therefore, at all places throughout the works where hazard of fire, explosion, or danger from toxic gases may occur, the permittee shall post conspicuously proper warnings of a permanent and easily legible character and shall provide for the thorough instruction of all employes concerning the aforesaid hazards and in first aid and emergency methods of meeting such hazards and shall further provide, in a conveniently accessible place, all necessary equipment and material therefor.

John J. Shaw, M. D., Secretary of Health
Chairman, Sanitary Water Board.

Recorded November 8, 1941 - Herbert L. Smith, Recorder.

31591.

Sanitary Water Board :
to :
The City of York :

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
SANITARY WATER BOARD
HARRISBURG

SEWERAGE PERMIT

The Sanitary Water Board, which by virtue of The Administrative Code approved June 7, 1923, P. L. 498, and the amendments thereto and of Act approved June 22, 1937, P. L. 1987, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation", hereby issues this permit to the City of York, York County, in response to the city's application, approving, subject to certain conditions, sanitary sewer extensions to the existing sewer system of York, as these extensions are set forth in the tabulation attached to the application and as further shown upon a folio of twenty plans bearing the following titles: "York, Pa. Map of Sewer Lines", dated October 1933; "York, Pa. Map Of 14th Ward Sewer Lines", dated October 1933; "Plan & Profile Of Proposed Sanitary Sewer On W. Gas Alley Bet. Park & Beaver Sts.", dated 1936; "Plan & Profile Of Proposed Sanitary Sewer On Arlington Road Bet. Merion Road & Arrow Alley", dated 1936; "Plan & Profile Of Proposed Sanitary Sewer On Edgecomb Rd. Bet. Pine St. & Poplar Ay.", dated 1936; "Plan & Profile Of Proposed Sanitary Sewer On Florida Avenue From Existing Sewer West Of Belvidere Ave. To Summit East Of Belvidere Ave.", dated 1936; "Plan & Profile of Proposed Sanitary Sewer On Fahs St. Carroll St. & Conewago", dated 1936; "Plan & Profile Of Proposed Sanitary Sewer To Womans Toilet Farquhar Park", dated 1936; "Plan & Profile Showing Proposed San. Sewer On W. Clarke Ay. Bet. Newberry & Penn Sts.", dated 1936; "York Penna. 8" San. Sewer Exten. On Rose Alley & Bierman St.", dated Dec. 21, 1936; "York, Pa. 8" Sanitary Sewer On Edgecomb Road Poplar Alley to Edgar St.", dated Dec. 11, 1936; "York, Penna. 8" San. Sewer On N. Beaver St. Willis Run to Jefferson Ave.", dated Dec. 18, 1936; "York, Penna. 8" San. Sewer Exten. On Edgar Street Rose Alley To Springdale Ave.", dated Dec. 24, 1936; "York, Penna. 8" San. Sewer Exten. On Springdale Ave. Edgar To Pine Sts.", dated Dec. 24, 1936; "York, Pa. 8" San. Sewer On Bull Road Conewago to Chanceford", dated Dec. 16, 1936; "York, Penna. 8" San. Sewer on Jackson Street Edgar St. to Pine St.", dated Apr. 26, 1937; "York, Penna. 8" San. Sewer On Calvert Street Jackson St. To Springettebury Ave.", dated April 30, 1937, "York, Penna. 8" San. Sewer on E Springettsbury Ave Edgar St. To Pine St.", dated Apr. 26, 1937; "York, Penna. 8" Sanitary Sewer On Edgar Street Between Springdale Ave. & Neff Ave.," dated June 7, 1937; "York, Penna. 8" Sanitary Sewer On Neff Avenue Between Edgar St. & Poplar Alley", dated June 7, 1937; all the plans having been prepared in the office of the city engineer of York and all

having been received in the Harrisburg Office of the Pennsylvania Department of Health on July 19, 1937.

This permit is issued subject to the following Special Conditions:

"A" On or before June 30, 1942, the city of York shall submit to the Sanitary Water Board for approval a report and detail plans prepared by a competent and experienced sanitary engineer, for units for the complete treatment of the sewage of the city, which in construed to mean units capable of the consistent removal of 85% or more of the organic material contained in the untreated sewage, plus efficient chlorination, and after approval of the said report and plans, the city shall construct the aforesaid units and place them in operation in accordance with such orders as the Board may issue to the city.

"B" The city's attention is called to its failure to submit to the Sanitary Water Board the revised comprehensive plan of the city's sewerage required by the tenth condition of the sewerage permit issued to York under date of March 4, 1935, and to the necessity that the city promptly submit this revised comprehensive plan.

And this permit is further subject to the following numbered Standard Condition of "STANDARD CONDITIONS RELATING TO SEWERAGE" effective April 1, 1940 attached hereto:

1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, 17 and 18.

This permit is issued in response to an application

(No. 7215) filed in the Harrisburg Office of the Pennsylvania Department of Health on the 26th day of July A. D. 1937.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

ATTEST:

J. R. Hoffert,
Civil Engineer
Secretary

Commonwealth of Pennsylvania Sanitary Water Board

SANITARY WATER BOARD

By: A. H. Stewart,
Secretary of Health
Chairman

Harrisburg, Pennsylvania.
October 14, 1941

STATE OF PENNSYLVANIA)
: SS
COUNTY OF DAUPHIN)

On the 14th day of October in the year one thousand nine hundred and 41, before me, the Subscriber, a Notary Public, came the above named A. H. Stewart, M. D. and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

WITNESS my hand and notarial seal the day and year aforesaid.

George B. Kirsch, Notary Public

My Commission Expires March 9, 1943

Commissioned in Cumberland Co.

George B. Kirsch Notary Public Cumberland County Lemoyne, Pa.

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective April 1, 1940

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and com-

Witness my hand and Official seal the day and year aforesaid.

WALTER S. K. BROWN JUSTICE OF THE PEACE JACKSON TWP. YORK CO. PA.

Walter S. K. Brown (SEAL)

Justice of the Peace

My Commission expires the First Monday of May, 1909

Recorded March 11, 1943 - Elmer C. Myers, Recorder.

---o---

10615.

COMMONWEALTH OF PENNSYLVANIA :
DEPARTMENT OF HEALTH :
TO :
CITY OF YORK :

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
SANITARY WATER BOARD
HARRISBURG

SEWERAGE PERMIT

The Sanitary Water Board, which by virtue of The Administrative Code approved June 7, 1923, P. L. 498, and the amendments thereto and of Act approved June 22, 1937, P. L. 1987, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation", hereby issues this permit to the city of York, York County, in response to an application from the said municipality and hereby approves, subject to certain conditions, the constructed and proposed sewers to serve the Park Village section as these are shown upon a plan supplementing the said application. The plan bearing the title, "Proposed Sanitary Sewers In Park Village York, Penna. --- July 1942" was prepared in the office of the City Engineer, York, Pennsylvania, and was received in the Harrisburg Office of the Pennsylvania Department of Health on July 25, 1942.

This permit is issued subject to the following Special Conditions:

A. The permittee's attention is called to the fact that the proposed sewers in right of way from Wood Street to Elm Terrace and on Carl Street are shown with grades which are somewhat lower than those which insure self-cleansing velocities. Therefore, further studies should be made to determine if these sewers can be laid with grades which insure self-cleansing velocities, or else other satisfactory provisions shall be made for maintaining these sewers free of deposits.

B. The permittee's attention is particularly called to its failure to fulfill in full the requirements of Special Condition "A" of the permit issued to York under date of October 27, 1941, which reads as follows:

> "On or before June 30, 1942, the city of York shall submit to the Sanitary Water Board for approval a report and detail plans prepared by a competent and experienced sanitary engineer, for units for the complete treatment of the sewage of the city, which is construed to mean units capable of the consistent removal of 85% or more of the organic material contained in the untreated sewage, plus efficient chlorination, and after approval of the said report and plans, the city shall construct the aforesaid units and place them in operation in accordance with such orders as the Board may issue to the city."

Therefore, the city shall prepare the aforesaid required plans and report as rapidly as consistent with the present war effort, but these plans and the report shall be submitted to the Sanitary Water Board not later than December 31, 1943, for approval.

And this permit is further subject to the following numbered Standard Conditions of "STANDARD CONDITIONS RELATING TO SEWERAGE" effective November 1, 1942 attached hereto:

1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, 17 and 18.

This permit is issued in response to an application (No. 7941) filed in the Harrisburg Office of the Pennsylvania Department of Health on the 16th day of June A. D. 1941.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

COMMONWEALTH OF PENNSYLVANIA SANITARY WATER BOARD

SANITARY WATER BOARD

By: A. H. Stewart
Secretary of Health
Chairman

Attest: J. R. Hoffert
Asst. Chief Engineer
Secretary

Harrisburg, Pennsylvania.
January 21, 1943

STATE OF PENNSYLVANIA)
: SS
COUNTY OF Dauphin)

On the 21 day of January in the year one thousand nine hundred and 43, before me, the Subscriber, a Notary Public, came the above named A. H. Stewart, Secretary of Health and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

L. L. DUNKLE NOTARY PUBLIC DAUPHIN COUNTY HARRISBURG PA.

L. L. Dunkle
NOTARY PUBLIC

My Commission Expires June 30, 1945

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective November 1, 1942.

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans, designs, and other data as herein approved or amended, and with the conditions of this permit.

FOUR: During construction the herein approved sewers shall be so laid and such care and skill shall be used in their construction as will insure that they conform to the following requirements:

(a) They shall have well-fitted joints made tight to reduce infiltration to a minimum; shall be laid with straight alignment and to true grade; and shall have smooth interior surfaces.

(b) They shall have adequate foundation support by means of the natural soil; or by an approved, especially prepared foundation of piling, concrete cradle, or encasement, or otherwise as conditions require; and their trenches shall be so back-filled that the sewers will have proper structural stability, minimum settlement, and adequate protection against breakage.

(c) To these ends special care shall be taken in the placing of sewers under deep or shallow cover, under heavy loading, in stream crossings, in rock or wet excavations, or under

Signed, Sealed and Delivered in the Presence of Ethel H. Stein — Joye L. Druck (SEAL)

State of Pennsylvania)
: ss.
County of York)

On this, the twenty-seventh day of October, 1944, before me, a Notary Public in and for said State and County the undersigned officer, personally appeared Joye L. Druck, single, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

MRS. ETHEL H. STEIN NOTARY PUBLIC YORK COUNTY DALLASTOWN, PA.

Ethel H. Stein (SEAL)
NOTARY PUBLIC
My Commission Expires January 5, 1947

CERTIFICATE OF RESIDENCE

I do hereby certify that the precise residence of the within named grantee is Dallastown Borough, York County, Pennsylvania

October 19 1944

Paul E. Stein
Attorney for grantee

Recorded April 17, 1945 - Elmer C. Myers, Recorder.

---O---

31368,

COMMONWEALTH OF PENNSYLVANIA :
TO :
YORK CITY :

SEWERAGE PERMIT

The Sanitary Water Board, which by virtue of The Administrative Code approved June 7, 1923, P.L. 498, and the amendments thereto and of Act approved June 22, 1937, P.L. 1987, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation", hereby issues this permit to the City of York, York County in response to an application from the said municipality and hereby approves, subject to certain conditions, the proposed sanitary sewer extension in Eberts Lane as shown upon a plan supplementing the application. The plan, which bears the title, "York, Pa. Plan and Profile Of 8" Sanitary Sewer Eberts Lane Hay St. to N.C.R.R. Tracks Ward #12 Block No. 364 March 16, 1945", was prepared by C. F. W. Wallow, City Engineer and was received in the Harrisburg Office of the Pennsylvania Department of Health on April 3, 1945. This permit is issued subject to the following Special Conditions:

A. The permittee's attention is specifically called to the notice issued to the City of York by the Sanitary Water Board under date of November 29, 1944 which directed that the City of York submit, "either along or jointly with any other mutually interested municipality, on or before December 31, 1945 to the Sanitary Water Board for approval, a report upon and detailed construction plans for works to provide complete treatment of the sewage of your City and of any other sewage discharged into your sewers. Complete treatment shall be construed to be such as in the opinion of the Sanitary Water Board will remove practically all of the suspended solids; will remove at least 85% of the organic pollution load as measured by the bio-chemical oxygen demand test; will provide effective disinfection to control disease-

producing germs; will provide satisfactory disposal of sludge; and will produce a final effluent that is suitable for discharge into the receiving stream."

And this permit is further subject to the following numbered Standard Conditions of "STANDARD CONDITIONS RELATING TO SEWERAGE" effective November 1, 1942 attached hereto: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, and 16

This permit is issued in response to an application (No. A-361) filed in the Harrisburg Office of the Pennsylvania Department of Health on the 3rd day of April A. D. 1945.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

COMMONWEALTH OF PENNSYLVANIA SANITARY WATER BOARD

SANITARY WATER BOARD

By: A. H. Stewart, M.D.
Secretary of Health
Chairman

Attest: J. H. Hoffert
Asst. Chief Engineer
Secretary

Harrisburg, Pennsylvania.

May 8, 1945

STATE OF PENNSYLVANIA)
: SS
COUNTY OF Dauphin)

On the 8 day of May in the year one thousand nine hundred and 45, before me, the Subscriber, a Notary Public, came the above named A. H. Stewart, M.D. Secretary of Health and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

MARY J. MUSSINA NOTARY PUBLIC LEBANON COUNTY MOUNT GRETNA, PA.

Mary J. Mussina
NOTARY PUBLIC

My Commission Expires Mar. 9, 1947

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective November 1, 1942.

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans, designs, and other data as herein approved or amended, and with the conditions of this permit.

FOUR: During construction the herein approved sewers shall be so laid and such care and skill shall be used in their construction as will insure that they conform to the following requirements:

(a) They shall have well-fitted joints made tight to reduce infiltration to a minimum; shall be laid with straight alignment and to true grade; and shall have smooth interior surfaces.

(b) They shall have adquate foundation support by means of the natural soil; or by an approved, especially prepared foundation of piling, concrete cradle, or encasement, or otherwise

1586.

COMMONWEALTH OF PENNSYLVANIA :
TO :
THE CITY OF YORK :

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
SANITARY WATER BOARD
HARRISBURG

SEWERAGE PERMIT

The Sanitary Water Board, which by virtue of The Administrative Code of 1929 approved April 9, 1929, P.L. 177, and amendments thereto and of Act approved June 22, 1937, P.L. 1987, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation", hereby issues this permit to the City of York, York County, in response to an application from the said municipality, and hereby approves, subject to certain conditions, the proposed sewage treatment works of complete treatment, as shown upon a folio comprising a cover page and 59 plans supplementing the application. The folio of plans of the sewage treatment works, the titles and numbers of which are set forth in the District Engineer's Report, was prepared by Albright and Friel, Inc., and bears the seal of Francis S. Friel as a Pennsylvania Registered Professional Engineer. The folio of plans was received in the Harrisburg Office of the Pennsylvania Department of Health on September 26, 1949. This permit is issued subject to the following Special Conditions: "A" - The attention of the city is specifically directed to Standard Condition No. 7 relative to industrial wastes discharged to the public sewer system. In order to effectively comply with this condition, the permittee shall adopt and enforce an ordinance providing for such regulation of all industrial wastes discharged into the permittee's sewer system as will prevent their overloading the treatment works or prejudicially affecting the sewerage structures or the processes of sewage treatment.

And this permit is further subject to the following numbered Standard Conditions of "STANDARD CONDITIONS RELATING TO SEWERAGE" effective November 1, 1942 attached hereto: 1, 2, 3, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, & 27.

This permit is issued in response to an application (No. A-1032) filed in the Harrisburg Office of the Pennsylvania Department of Health on the 21st day of March A.D. 1949, and in accordance with the authorization given by the Sanitary Water Board at its meeting on Nov. 16-17, 1949. It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

SANITARY WATER BOARD COMMONWEALTH OF PENNSYLVANIA

Sanitary Water Board

By Norris W. Vaux, M.D.
Secretary of Health
Chairman

Attest: John W. Gittins
Civil Engineer
Acting Secretary

Harrisburg, Pennsylvania,
January 31, 1950.

STATE OF PENNSYLVANIA)
: SS
COUNTY OF Dauphin)

On the 1st day of February in the year one thousand nine hundred and fifty, before me, the Subscriber, a Notary Public, came the above named Norris W. Vaux, M.D. Secretary of Health and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

FLORENCE E. DYER NOTARY PUBLIC DAUPHIN COUNTY HARRISBURG PA.

Florence E. Dyer
Notary Public
My Commission Expires:
February 1, 1953.

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective November 1, 1942.

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans, designs, and other data as herein approved or amended, and with the conditions of this permit.

FOUR: During construction the herein approved sewers shall be so laid and such care and skill shall be used in their construction as will insure that they conform to the following requirements:

(a) They shall have well-fitted joints made tight to reduce infiltration to a minimum; shall be laid with straight alignment and to true grade; and shall have smooth interior surfaces.

(b) They shall have adequate foundation support by means of the natural soil; or by an approved, especially prepared foundation of piling, concrete cradle, or encasement, or otherwise as conditions require; and their trenches shall be so back-filled that the sewers will have proper structural stability, minimum settlement, and adequate protection against breakage.

(c) To these ends special care shall be taken in the placing of sewers under deep or shallow cover, under heavy loading, in stream crossings, in rock or wet excavations, or under other conditions which impose extra hazards upon their construction.

(d) All concrete used in connection with these sewers and their appurtenances shall be so placed and protected until cured that it will not be injured by water, freezing, drying, or otherwise.

(e) The type and material of both sewer pipe and joint shall be so selected in accordance with actual field and construction conditions, and shall be so incorporated into the work as to conform to the aforesaid requirements.

FIVE: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HEALTH
SANITARY WATER BOARD
HARRISBURG

SEWERAGE PERMIT

561311

The Sanitary Water Board, which by virtue of the Act of April 9, 1929, P.L. 177, known as The Administrative Code of 1929, and the amendments thereto, and of the Act of June 22, 1937, P.L. 1987, as amended by the Act of May 8, 1945, P.L. 435, is empowered to exercise certain powers and perform certain duties "To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation;***", hereby issues this permit to the York City Sewer Authority, York, Pennsylvania, for the construction of modifications to the existing sewage treatment plant serving the City of York, York County, and its environs, and discharge of treated effluent to Codorus Creek, as shown on plans and described in a report and specifications accompanying application No. 561311.

This permit is subject to the following special condition:

A. The plant hereby approved is required to effect complete treatment of the sewage which it receives. The term "complete treatment" is defined as such treatment of sewage as, in the opinion of the Board, will remove practically all of the suspended solids; will remove at least eighty-five per cent of the organic pollution load as measured by the

biochemical oxygen demand test; will accomplish the removal of oils, greases, acids, alkalis, toxic, putrescible, taste and odor producing substances, and other substances inimical to the public interest in the receiving stream; will provide effective disinfection to control disease producing germs; will provide satisfactory disposal of sludge; and will produce a final effluent that is suitable for discharge into the receiving stream.

This permit is also subject to the following STANDARD CONDITIONS RELATING TO SEWERAGE effective November 1, 1942 attached hereto:

1, 2, 3, 6, 7, 9, 11, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26 and 27.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds for York County.

SANITARY WATER BOARD

C. L. Wilbar, Jr., M. D.
Secretary of Health
Chairman

Attest:
Walter V. Kohler
Secretary

Harrisburg, Pennsylvania

HSE - 6306

51H [illegible] 582

STATE OF PENNSYLVANIA }
COUNTY OF DAUPHIN } SS

On the 26th day of May in the year one thousand nine hundred and 61 before me, the Subscriber, a Notary Public, came the above named

C. L. Wilbar, Jr., M. D.

and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

[signature]
NOTARY PUBLIC

NOTARY PUBLIC

5IM 58J

HEE-4316-P

PENNSYLVANIA DEPARTMENT OF HEALTH
SANITARY WATER BOARD

STANDARD CONDITIONS RELATING TO SEWERAGE

Effective November 1, 1942.

ONE: All relevant and non-superseded conditions of prior sewerage permits, decrees, or orders issued to the herein named permittee or his predecessor shall be continued in full force and effect.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first submit each such revision to the Sanitary Water Board and receive written approval thereof.

THREE: The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with the plans, designs, and other data as herein approved or amended, and with the conditions of this permit.

FOUR: During construction the herein approved sewers shall be so laid and such care and skill shall be used in their construction as will insure that they conform to the following requirements:

(a) They shall have well-fitted joints made tight to reduce infiltration to a minimum; shall be laid with straight alignment and to true grade, and shall have smooth interior surfaces.

(b) They shall have adequate foundation support by means of the natural soil; or by an approved, especially prepared foundation of piling, concrete cradle, or encasement, or otherwise as conditions require; and their trenches shall be so back-filled that the sewers will have proper structural stability, minimum settlement, and adequate protection against breakage.

(c) To these ends special care shall be taken in the placing of sewers under deep or shallow cover, under heavy loading, in stream crossings, in rock or wet excavations, or under other conditions which impose extra hazards upon their construction.

(d) All concrete used in connection with these sewers and their appurtenances shall be so placed and protected until cured that it will not be injured by water, freezing, drying, or otherwise.

(e) The type and material of both sewer pipe and joint shall be so selected in accordance with actual field and construction conditions, and shall be so incorporated into the work as to conform to the aforesaid requirements.

FIVE: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

SIX: No storm water from pavements, areaways, roofs, or other sources shall be admitted to the sanitary sewers herein approved, which shall be used exclusively as carriers of domestic sewage and suitable industrial wastes.

Storm water shall be admitted only to such sewers as are specifically approved for use as combined sewers.

SEVEN: Attention is directed to the necessity of having a qualified person make proper study of all industrial wastes proposed for discharge to the public sewer system, to determine the degree of preliminary treatment, if any, which is necessary before these wastes may be discharged to the said system.

No industrial wastes shall be discharged to the sewer system which will prejudicially affect the sewerage structures or their functioning, or the processes of sewage treatment, and any permission granted by the permittee for industrial wastes discharge into the sewer system should reserve to the permittee the right to regulate the rate of such discharge or to require such further preliminary treatment as may be necessary, or the exclusion of the said industrial wastes from the sewers, if this be deemed necessary to protect the permittee's interests.

-4-

EIGHT: The permittee shall forthwith adopt and enforce an ordinance requiring all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State laws, to be connected thereto; also requiring the abandonment of privies, cesspools or similar receptables for human excrement on said premises; and also prohibiting any connection from any privy vault or cesspool being made to the public sewer system.

NINE: In accordance with the provisions of State laws regarding connection to sewers and the rules and regulations of the Pennsylvania Department of Health pertaining thereto, the permittee shall forthwith require all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State laws, to be connected thereto; and shall also require the abandonment of privies, cesspools or similar receptacles for human excrement on said premises; and shall also prohibit any connection from any privy vault or cesspool being made to any approved sewers.

TEN: The herein approved and previously constructed sewers shall be maintained in good condition, by repair when necessary, and kept free from deposits by flushing or other proper means of cleansing, in order that they may at all times afford a proper means for the prompt conveyance of sewage.

ELEVEN: No sewers or sewerage work shall be constructed except such as are herein approved or have been approved by a prior permit still valid; and on or before December thirty-first of each year the permittee shall file in the office of the State Department of Health satisfactory record, or detail plans, showing the correct plan of all sewers and sewerage structures as actually constructed during that year, together with any other information in connection therewith that may be required, in order that the Sanitary Water Board may at all times have full information as to the extent and use of the system.

TWELVE: The outfall sewer shall be extended to low water mark of the receiving body of water in such a manner as to insure the satisfactory dispersion of its effluent therefrom; insofar as practicable it shall have its outlet submerged; and shall be constructed of cast iron, concrete, or other material approved by the Bureau of Sanitary Engineering; and shall be so protected against the effects of flood water, ice, or other hazards as to reasonably insure its structural stability and freedom from stoppage.

THIRTEEN: The permittee shall secure any necessary permission

from the proper federal authority for any outfall or sewerage structure which discharges into or enters navigable waters and shall obtain from the State Water & Power Resources Board approval of any stream crossing, encroachment, or change of natural stream conditions coming within the jurisdiction of the said Board.

FOURTEEN: If at any time the sewerage system of the permittee, or any part thereof, or the discharge of sewage therefrom, shall have created a public nuisance, or such discharge is or may become inimical and injurious to the public health or to animal or aquatic life or to the use of the receiving water for domestic or industrial consumption, or for recreation, the permittee shall forthwith adopt such remedial measures as the Sanitary Water Board may advise or approve.

FIFTEEN: Nothing herein contained shall be construed to be an intent on the part of the Sanitary Water Board to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating sewerage and the practice of professional engineering, or shall be construed as approval of the structural adequacy of the approved structures; nor shall this permit be construed to permit any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

SIXTEEN: The improvements being effected in the waters of the State through the progressive, sanitary clean-up of streams by the Sanitary Water Board render the effects of untreated municipal sewage and industrial wastes upon these waters increasingly harmful or inimical to the public interest, in consequence of which the time should be anticipated when such sewage and/or industrial wastes must be suitably modified prior to its discharge thereto.

Therefore, the permittee is hereby notified that when the Sanitary Water Board shall have determined that the public interests require the treatment or further treatment of the sewage and/or industrial wastes of the permittee, then the permittee shall, upon notice by the Board, within the time specified, submit to the Board for its approval, plans and a report providing for the degree of treatment of the permittee's sewage and/or industrial wastes specified by the Board and after approval thereof shall construct such works in accordance with the directions of the Board.

SEVENTEEN: The approval herein given is specifically made

contingent upon the permittee acquiring all necessary rights, by easement or otherwise as required, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along, or across private property, with full rights of ingress, egress and regress.

EIGHTEEN: Promptly upon completion of the herein approved sewerage, duplicate detail record plans showing these works as actually constructed, shall be filed with the Sanitary Water Board for its information.

NINETEEN: When the herein approved sewage treatment works is constructed and before it is placed in operation, the permittee shall notify the State Department of Health so that an inspection of the works may be made by a representative of the Department.

TWENTY: The various structures and apparatus of the sewage treatment works herein approved shall be maintained in proper condition so that they will individually and collectively perform the functions for which they were designed.

TWENTY-ONE: The screenings and sludge shall be so handled that a nuisance is not created and shall be disposed of in a sanitary manner to the satisfaction of the Sanitary Water Board.

TWENTY-TWO: Daily records of the operation of the sewage treatment works shall be kept on forms satisfactory to the State Department of Health and copies of such records shall be filed at weekly intervals in the office of the said Department. These reports shall include the quantity of sewage treated and the results of such tests and analyses as the State Department of Health may deem necessary for proper control of the operation of the sewage treatment works.

TWENTY-THREE: The sewage treatment works shall be operated by a competent person or persons. In this connection attention is directed to the necessity for expert advice and supervision over the operation of the sewage treatment works in order to secure efficiency of operation and protection to the waters of the State. To this end the permittee shall place the operation of the sewage treatment works under the control of the designer of these works, or some other person expert in the operation of sewage treatment works, for at least one year after completion thereof.

TWENTY-FOUR: The right to discharge the effluent from the permittee's sewage treatment works into the waters of the State is specifically made contingent upon such operation of these works as will produce an effluent of a quality satisfactory for discharge into the receiving body of water. If, in the opinion of the Sanitary Water Board, these works are not so operated or if by reason of increased load upon the works, changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory for such discharge, then upon notice by the Board the right herein granted to discharge such effluent shall cease and become null and void and, within the time specified by the Board, the permittee shall take such remedial measures as will produce an effluent which in the opinion of the Board, will be satisfactory for discharge into the said receiving body of water.

TWENTY-FIVE: The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air, and to the highly toxic character of certain gases arising from such digestion or from sewage in insufficiently ventilated compartments or sewers. Therefore, at all places throughout the works where hazard of fire, explosion, or danger from toxic gases may occur, the permittee shall post conspicuously proper warnings of a permanent and easily legible character and shall provide for the thorough instruction of all employes concerning the aforesaid hazards and in first aid and emergency methods of meeting such hazards and shall further provide, in a conveniently accessible place, all necessary equipment and material therefor.

TWENTY-SIX: Adequate and assured ventilation shall be provided for all enclosed screen chambers, sewage wells, pump rooms, sludge wells, general control rooms, chlorine control, and digester control rooms, and also for all other compartments in which explosive or dangerous gases or dusts can accumulate and which must be entered periodically for inspection or operation.

TWENTY-SEVEN: Cross connections between a potable water supply and a sewerage system constitute a potential danger to the public health. Therefore, all direct and indirect connections whereby under normal or abnormal conditions the potable water supply may become contaminated from an inferior water supply, from any unit of the sewage treatment works, or by any appurtenances thereof or from any part of a sewerage system, are hereby specifically prohibited. The permittee is further warned against permitting to be made permanent any temporary connection with a potable supply designed to be held in place while being

used for flushing or other purposes, and is also cautioned against the danger of back siphonage through portable hose lines and similar avenues of possible contamination.

Recorded in York Co., Pa. June 8, 1961

In Record Book 51-H, Page 580

Luther H. Fisher Recorder.

Mail to J.W. Eberhold Sec
Hotel Yorktowne York Pa.

000629

BOOK 66C PAGE 1028

DEPARTMENT OF ENVIRONMENTAL RESOURCES

In the Matter of: :

City of York :
York City Sewer Authority : Sewerage
York County :

JAN 11 8 45 AM '73

REGISTER OF DEEDS OFFICE
YORK, YORK COUNTY, PA.

ORDER

NOW, TO WIT, this 29th day of December, 1972, the Department of Environmental Resources ("Department") has found and determined that:

1. On August 2, 1968 a Sanitary Water Board Order was issued to the York City sewer Authority and the City of York requireing submission of a schedule for the upgrading of existing sewage treatment facilities by July 31, 1969, in accordance with water quality standards established for the Codorus Creek Basin;

2. On November 12, 1969, the Department approved a schedule dated November 3, 1969 which was submitted by the York City Sewer Authority in compliance with the August 2, 1968 Order. Said schedule provided for, among other things, the submission of plans and an application for approval of facilities required by the order by June 30, 1970 and completion of construction of facilities by June 30, 1971.

3. On or about March 1, 1972 the York City Sewer Authority submitted Application No. 6772410 for approval of an expansion of the existing treatment works and the addition of nutrient removal facilities, said facilities not being capable of full compliance with the established water quality standards, although some improvements to effluent quality will be accomplished.

4. On March 27, 1972 the York City Sewer Authority adopted and submitted to the Department for approval a schedule for construction of tertiary treatment facilities which, along with facilities proposed by Application No. 6772410 would provide compliance with the August 2, 1968 Order.

5. Full compliance by the York City Sewer Authority and the City of York with the water quality standards established for the Codorus Creek Basin will not be provided until October, 1975.

NOW, THEREFORE, it is hereby ORDERED, pursuant to Sections 3, 4, 5, 201, 202, 203 and 610 of the Clean Streams Law and Sections 91.33, 93.5, 93.6, 95.1 and 95.6 of the Department's Rules and Regulations that the York City Sewer Authority and the City of York shall:

a. Comply with all steps of the schedule adopted March 27, 1972 and place into full operation tertiary treatment facilities to comply with the water quality standards established for the Codorus Creek Basin by October 15, 1975.

b. Begin construction of facilities to provide additional treatment capacity and nutrient removal at the existing treatment works by March 31, 1973, or within 90 days of Federal authorization to advertise for bids pursuant to a Federal construction grant, whichever is sooner, said facilities to be placed into full operation no later than June 30, 1974.

c. Prohibit any additional discharge into that part of your sanitary sewer system which is tributary to the York City Sewer Authority treatment facilities unless written authorization for the discharge has been granted by the Department. Such prohibition shall not apply to connections to approved sewers which will serve new construction for which building permits were issued prior to the date of receipt of this Order. The prohibition shall remain in full force and effect until it is demonstrated to the satisfaction of the Department through actual facility operation data that the proposed treatment facilities are adequate to meet the treatment requirements necessary to comply with applicable water quality standards.

d. Within thirty (30) days of receipt of this order, submit a written report to the Department outlining steps being taken to enforce the prohibition of new connections and discharges within the City limits and in surrounding municipalities which are receiving sewerage service at the York City Sewer Authority's treatment works.

e. Comply with all steps of the schedule adopted March 27, 1972 for the separation of combined sewers, including submission of preliminary plans by November 1, 1972, submission of final plans by May 1, 1973, begin construction by November 1, 1973, and complete construction by November 1, 1974.

You are hereby notified that Section 7 (a) of the Clean Streams Law provides that any person aggrieved by this Order has a right to appeal to the Environmental Hearing Board. Appeals shall be filed in the manner provided in Chapter 21 of the Department's Rules and Regulations, a copy of which is attached hereto. The original shall be mailed to Environmental Hearing Board, First Floor, Blackstone Building, Harrisburg, Pennsylvania, 17101. A copy shall be mailed to this office and a copy to Bureau of Administrative Enforcement, Room 709, Health and Welfare Building, P. O. Box 2351, Harrisburg, Pennsylvania, 17105.

FOR THE DEPARTMENT OF ENVIRONMENTAL RESOURCES

Elvin F. Hoover

Elvin F. Hoover
Regional Sanitary Engineer

Attachment: Chapter 21, Department's Rules and Regulations

BOOK 660 PAGE 1023

Sewerage Permit
No. 6772410

This permit is issued subject to all Department of Environmental Resources Rules and Regulations now in force, and the following Special Conditions:

A. The plant hereby approved is required to effect secondary treatment of the sewage which it receives. Secondary treatment is treatment that will, for the purpose of this permit, limit the biochemical oxygen demand in the effluent to 7 mg/l during the period May 1 to October 31 and to 14 mg/l during the remainder of the year based on a five consecutive day average of values; will maintain at least 6 mg/l of dissolved oxygen in the effluent at all times; will remove practically all of the suspended solids; will provide effective disinfection to control disease producing organisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, grease acids, alkalis, toxic, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

B. The plant hereby approved shall remove at least 80% of the phosphorus from the sewage which it receives.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds in York County.

EP-BWQ-15 Rev. 11/72

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

WATER QUALITY MANAGEMENT PERMIT

NO. 6772410

A. PERMITTEE: (Name and Address)

York City Sewer Authority
154 Merion Road
York, Pennsylvania 17405

B. PROJECT LOCATION

Municipality York

County York County

C. TYPE OF FACILITY Addition of new sewage treatment facilities and upgrading of existing sewage treatment plant.

D. NAME OF MINE OR AREA SERVED Serves City of York, North York and West York Boroughs, and Spring Garden, Manchester, West Manchester, and York Townships.

E. THIS PERMIT APPROVES:

1. Plans For Construction Of:
   - a. [X] Pump Stations; Sewers and Appurtenances
   - b. [X] Sewage Treatment Facilities
   - c. [ ] Industrial Wastes Treatment Facilities

2. The Discharge Of:
   - a. [X] Treated
   - [ ] Untreated
   - b. [ ] Industrial Wastes
   - [X] Sewage

   TO: Codorus Creek
   (Receiving Waters)

3. The Operation Of:
   - a. [ ] Mine

   Maximum surface area to be affected shall not exceed _____ acres. (Surface Mines)

   Maximum area to be deep mined _____ acres.

F. YOU ARE HEREBY AUTHORIZED TO CONSTRUCT, OPERATE OR DISCHARGE, AS INDICATED ABOVE, PROVIDED THAT YOU COMPLY WITH THE FOLLOWING:

1. ALL REPRESENTATIONS REGARDING OPERATION, CONSTRUCTION, MAINTENANCE AND CLOSING PROCEDURES AS WELL AS ALL OTHER MATTERS SET FORTH IN YOUR APPLICATION AND ITS SUPPORTING DOCUMENTS (APPLICATION NO. 6772410 DATED 2/28/72, AND AMENDMENTS DATED 5/24/72 and 5/26/72; SUCH APPLICATION, ITS SUPPORTING DOCUMENTS AND AMENDMENTS, ARE HEREBY MADE A PART OF THIS PERMIT.

2. CONDITIONS NUMBERED 1, 2, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 29, and 30 OF THE Sewerage STANDARD CONDITIONS DATED 1972 WHICH CONDITIONS ARE ATTACHED HERETO AND ARE MADE A PART OF THIS PERMIT.

3. SPECIAL CONDITION(S) NUMBERED A and B WHICH ARE ATTACHED HERETO AND ARE MADE A PART OF THIS PERMIT.

G. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:

1. IF THERE IS A CONFLICT BETWEEN THE APPLICATION OR ITS SUPPORTING DOCUMENTS AND AMENDMENTS AND THE STANDARD OR SPECIAL CONDITIONS, THE STANDARD OR SPECIAL CONDITIONS SHALL APPLY.

2. FAILURE TO COMPLY WITH THE RULES AND REGULATIONS OF THE DEPARTMENT OR THE TERMS OR CONDITIONS OF THIS PERMIT SHALL VOID THE AUTHORITY GIVEN TO THE PERMITTEE BY THE ISSUANCE OF THE PERMIT.

3. THIS PERMIT IS ISSUED PURSUANT TO THE CLEAN STREAMS LAW, THE ACT OF JUNE 22, 1937, P.L. 1987, AS AMENDED. ISSUANCE OF THIS PERMIT SHALL NOT RELIEVE THE PERMITTEE OF ANY RESPONSIBILITY UNDER ANY OTHER LAW.

PERMIT ISSUED

DATE December 29, 1972

BOOK 660 PAGE 1031

DEPARTMENT OF ENVIRONMENTAL RESOURCES

BY Elvin F. Hoover

TITLE Regional Sanitary Engineer

TITLE 25. RULES AND REGULATIONS
PART I. DEPARTMENT OF ENVIRONMENTAL RESOURCES
Subpart A. PRELIMINARY PROVISIONS
ARTICLE III. RULES OF PRACTICE AND PROCEDURE

CHAPTER 21. ENVIRONMENTAL HEARING BOARD

Authority

The provisions of this Chapter 21 issued under AC § § 506 and 1921-A, as amended, and act of June 4, 1945, P.L. 1388, § 35, as amended, (71 P.S. § § 186, 510-21 and 1710.35).

Source

The provisions of this Chapter 21 adopted July 12, 1971; amended May 18, 1972, effective June 11, 1972, 2 Pa. B. 931.

PRELIMINARY PROVISIONS

§ 21.1. Scope.

(a) These rules govern the practice and procedure before the Environmental Hearing Board in all adjudicatory proceedings relating to any matter within the jurisdiction of the department except for matters jurisdiction of which is vested in the State Board for Certification of Sewage Treatment Plant and Waterworks Operators.

(b) These rules are not applicable to a proceeding to the extent that the applicable statute governing or authorizing the proceeding sets forth inconsistent practice or procedure.

(c) Except where inconsistent herewith the General Rules of Administrative Practice and Procedure shall be applicable.

(d) The Board is authorized to establish such forms and promulgate such supplementary rules as may be required, and to alter or amend these rules in its discretion in order to implement the provisions of law.

§ 21.2. Definitions.

The following words and terms, when used in this Chapter, shall have the following meanings, unless the context clearly indicates otherwise:

(1) *Action* - Any order, decree, decision, determination or ruling by the department or local agency affecting personal or property rights, privileges, immunities, duties, liabilites or obligations of any person, including, but not limited to, denials, modifications suspensions and revocations of permits, licenses and registrations; orders to cease the operation of an establishment or facility; orders to correct conditions endangering waters of the Commonwealth; orders to construct sewers and treatment facilities; and orders to abate air pollution; and appeals from and complaints for the assessment of civil penalties.

(2) *Board* - The Environmental Hearing Board consists of its chairman and two members appointed by the Governor to hear appeals from actions of the Department of Environmental Resources.

(3) *Department* - The Department of Environmental Resources.

(4) *Hearing examiner* - Any member of the board or other person duly designated to preside at hearings or conferences.

(5) *Intervener* - Any person intervening or petitioning to intervene as provided by these rules when admitted as a participant to a proceeding.

(6) *Local agency* - Any local governmental agency whose action is subject to review by the department or the board.

(7) *Party* - The department or local agency whose action is appealed from, an intervener and any person appealing an action or against whom an action is requested after hearing or opportunity for hearing whether designated as an applicant, respondent or otherwise.

(8) *Person* - Any individual, partnership, association, corporation, political subdivision, municipality authority, or other enttiy.

(9) *Supersedeas* - A suspension of the effect of an action of the department or local agency pending proceedings before the board.

GENERAL PROVISIONS

§ 21.11. Time.

(a) Appeals, briefs, notices and other documents required or permitted to be filed under these rules shall be received by the board within the time limits, if any, for such filing. The date of receipt by the board and not the date of deposit in the mails is determinative. The time fixed or the period of time prescribed for such filing may be extended by the board for good cause upon motion made before expiration of the time for filing.

(b) All actions of the department or local agency shall be effective as of the date of issuance of written notification of such action unless otherwise specially provided in the notice.

§ 21.12. Appearances.

(a) Any party may appear in his own behalf or may be represented by an attorney at law admitted to practice before the Supreme Court of Pennsylvania. In appropriate circumstances, the board may require that a party be represented by an attorney.

(b) In the absence of an attorney, a partnership may be represented by any of its members, a corporation or association may be represented by any of its officers and an authority or governmental agency may be represented by an officer or employee.

(c) Entries of Appearance shall be filed with the board and served upon the other parties to the proceeding.

(d) No party, other than the Commonwealth, may be represented by any attorney or other person who is at the same time an employee of the Commonwealth of Pennsylvania.

§ 21.13. Service.

(a) All notices and other documents shall be served upon the person designated in the Notice of Appearance and shall be served by mail (in which case, unless provided otherwise in these rules, the date of service shall be the day of deposit in the United States mail) or by personal service. Where appropriate, the board may require proof of service.

(b) Publication of a notice of action or proposed action by the department or board in the *Pennsylvania Bulletin* shall constitute notice to or service upon all persons, except a party, effective as of the date of publication.

§ 21.14. Interveners.

(a) Petitions for leave to intervene in any proceeding before the board shall be filed prior to initial presentation of evidence in such proceeding and shall set forth the specific grounds for the proposed intervention, the position and interest of the petitioner in the proceeding and a statment wherein said interest is or may be inadequately represented in such proceeding.

(b) Intervention is discretionary with the board and shall be subject to such terms and conditions as the board may prescribe. The board shall not deny the right to intervene on the basis that the proposed intervener does not have a proprietary interest affected by the action appealed.

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§ 21.15. Discovery, witnesses.

(a) Upon request, the board shall provide to the parties subpoenas for the attendance of witnesses or for the production of documentary evidence which shall be served in the same manner as notices and other documents.

(b) Compliance with subpoenas may be excused by the board when it determines that the testimony or documents are not relevant or material to the issues or for other cause.

(c) Upon request, the board shall permit such discovery prior to hearing as the board, in its discretion, determines will best prepare the parties for a hearing on the merits of the matter and/or to aid in its settlement. Such discovery may include oral depositions, written interrogatories of both parties and non-parties and inspection of premises.

(d) The scope of discovery shall be consistent with rules of practice in the Courts of Common Pleas of the Commonwealth.

§ 21.16. Supersedeas.

(a) An appeal or other proceeding before the board shall not act as a supersedeas to the action of the department or local agency unless granted by the board.

(b) A petition for supersedeas may be filed with the board at any time during the proceeding and shall set forth the specific grounds for which it is requested. In granting a supersedeas, the board may impose such conditions as are warranted by the circumstances including, where appropriate, the filing of a bond or other security. Except for compelling reasons justifying a supersedeas, a supersedeas shall be denied in cases of serious pollution, health hazard or nuisance which either exists or is threatened. Supersedeas shall be granted where it appears that the petitioner will ultimately succeed on the merits or where it appears that any delay in enforcing a department order is unlikely to cause injury to the public.

§ 21.17. Docket.

(a) The board shall maintain a docket of all proceedings and each proceeding as initiated shall be assigned an appropriate designation.

(b) The docket shall be available for inspection and copying by the public during the office hours of the board insofar as consistent with the proper discharge of the duties of the board.

INSTITUTION OF PROCEEDINGS

§ 21.21. Appeals.

(a) In cases where appeals are authorized by statute or regulation of the department, such appeal shall be in writing and shall be filed with the board within fifteen (15) days from the date of service of written notice of an action of the department or local agency.

(b) The appeal shall set forth the name, address and telephone number of the appellant and shall include or be accompanied by a copy of the written notification of the action of the department or local agency and a specification of objections setting forth the manner in which appellant is aggrieved by such action and the relevant issues to be resolved by the board. The appellant shall, within 48 hours after filing an appeal, serve a copy of the appeal on the officer of the department issuing the order and on the Attorney General c/o Office of Legal Counsel of the Department of Environmental Resources.

(c) Failure to comply with this section shall be a sufficient basis for dismissing the appeal. The action of the department or local agency shall be final as to any person who fails to file an appeal or to perfect an appeal pursuant to this section.

(d) The board upon written request filed within the fifteen day period set forth in paragraph (a) and for good cause may extend the time for the filing of an appeal to thirty (30) days from the date of service of written notice of an action of the department or local agency.

§ 21.22. Special actions.

(a) In cases where the department chooses or is required to take or request action after hearing or an opportunity for a hearing, it may initiate or request such action by filing a verified complaint or petition with the board and shall serve a copy of such complaint or petition, together with any order to show cause issued by the department or the board, upon the person against whom it is directed.

(b) Within fifteen (15) days from the date of service of the complaint, petition or order, the person against whom it is directed shall file with the board a verified answer responding to the allegations in the complaint, petition or order and setting forth whether a hearing is desired. Allegations in the complaint, petition or order which are not specifically denied shall be deemed to have been admitted. Failure to file an answer or to specifically deny the essential allegations of the complaint, petition or order shall constitute a sufficient basis for the entry of a default order or adjudication.

HEARINGS AND CONFERENCES

§ 21.31. Conferences.

(a) The board, on its own motion or on motion of any party, may hold a conference either prior to or during a hearing for the purpose of considering offers of settlement, adjustment of the proceeding or any issue therein, or other matters to expedite the orderly conduct and disposition of any hearing.

(b) Any stipulations of the parties or rulings of the board as a result of such conference shall be binding upon the parties.

(c) The board may issue such pre-hearing orders as it deems necessary for limiting issues of law and fact.

§ 21.32. Hearings.

(a) When the proceedings are at issue and hearing is required, a formal evidentiary hearing shall be scheduled and a Notice of Hearing shall be sent to all parties to the proceedings.

(b) The board may order proceedings involving a common question of law or fact to be consolidated for hearing of any or all of the matters in issue in such proceedings.

(c) A hearing will not be held if waived by appellant or respondent or if the parties stipulate all of the essential facts or agree to submit direct and rebuttal testimony or documentary evidence in affidavit form (sworn or affirmed on personal knowledge) or by deposition.

(d) Hearings shall not be continued except for compelling reasons. Requests for continuances shall be submitted to the board in writing with a copy served upon the other parties to the proceedings.

(e) The board may, at its discretion, hear matters before it as a whole or by individual board members sitting as hearing examiners. Hearings held by hearing examiners not members of the board will be decided by the board based upon its review of the record and the Examiner's proposed adjudication. All decisions shall be decisions of the board decided by majority vote except on petitions for supersedeas which may be decided by the board member hearing such petition.

(f) Any party may, within five (5) days after hearing and prior to adjudication, request oral argument before the entire board. The board may, in its discretion, grant or deny such request.

(g) The board may at any time on its own notion, or upon application of counsel, within ten (10) days after a decision has been rendered, grant reargument before the board en banc. Such action will be taken only for compelling and persuasive reasons.

§ 21.33. Evidence.

(a) Parties shall have the right of presentation of evidence, cross-examination, objection, motion and argument. The board shall not be bound by technical rules of evidence but all relevant and material evidence of reasonable probative value shall be

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admissible. The board may limit the number of witnesses upon any issue and may require any party to present additional evidence on any issue. All witnesses shall be sworn or shall affirm.

(b) Written testimony (on numbered lines in either narrative or question and answer form) of any witness may be admitted into evidence provided the witness is present and sworn or affirmed and provided a copy of the testimony was served upon and actually received by all other parties at least three days prior to the hearing. Five copies of any exhibit to be offered into evidence shall be made available at the time it is identified as an exhibit, unless otherwise ordered by the board for cause.

(c) Applications, permits, licenses, registrations, orders and formal notices relating to the proceeding may be considered by the board in adjudicating the case even though they have not been made a part of the record or referred to therein. The board may also take official notice of an official or public document not relating to the proceeding and of any matter subject to judicial notice.

(d) In case any matter contained in a report or other document on file with the department or board is offered in evidence, such report or document need not be produced or marked for identification but may be offered in evidence by specifying the report, document or other file containing the matter so offered.

§ 21.34. Briefs, suggested findings.

(a) The parties may, and upon request shall, submit briefs within such time as the board shall prescribe and shall serve a copy of the brief on the other parties.

(b) Upon request, the parties shall submit suggested findings of fact (with references to the appropriate exhibit or page of the transcript) and conclusions of law which may be included in a brief.

§ 21.35. Transcript.

(a) Hearings shall be stenographically reported and a transcript of such report shall be a part of the record.

(b) Parties desiring copies of such transcript shall obtain such copies from the official reporter. Parties shall also have the opportunity to review a copy of the transcript on file with the board.

§ 21.36. Adjudication.

(a) At the conclusion of the proceedings, the board shall issue an adjudication containing findings of fact, conclusions of law and an order.

(b) The board shall serve a copy of the adjudication on all parties to the proceedings or their representative

§ 21.37. Pre-hearing procedures.

The board shall, at any time, be authorized to delay a formal hearing and order settlement discussions or stipulations, either on or off of the record.

§ 21.38. Termination of proceedings.

(a) In all cases where a proceeding is sought to be terminated by the parties as a result of a settlement agreement, the terms of such settlement shall be submitted to the board for approval and the major substantive provisions thereof shall simultaneously be published in the Pennsylvania Bulletin. Any aggrieved party objecting to the proposed settlement may, within twenty (20) days after adjudication, appeal to the board in accordance with these rules and request a hearing on its objections.

(b) When any proceeding is withdrawn from the board by any party prior to adjudication, the docket shall be marked "Settled and discontinued". Unless otherwise indicated, such withdrawal shall be with prejudice as to all matters which have preceded the action.

§ 21.39. Venue of hearings.

At the discretion of the board, hearings shall be held at the Commonwealth facility nearest the location of the complaint sought to be remedied by the Department with due consideration for the convenience of witnesses, the public and the parties in attending such hearings.

§ 21.40. View of premises.

The board may upon reasonable notice and at reasonable times inspect any real estate including any body of water, industrial plant, building or other premises when the board is of the opinion that such a viewing would have probative value in any matter in hearing or pending before the board.

§ 21.41. Sanctions for failure to abide by Board order.

The board may impose sanctions upon a party for failure to abide by a board order. Such sanctions may include the dismissal of any appeal or an adjudication against the offending party, orders precluding introduction of evidence or documents not disclosed in compliance with any order, barring the use of witnesses not disclosed in compliance with any order, barring an attorney from practice before the board for repeated violations of orders or such other sanctions as are permitted in similar situations by the Pennsylvania Rules of Civil Procedure for practice before the Courts of Common Pleas.

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

STANDARD CONDITIONS RELATING TO SEWERAGE - 1972

ONE: All relevant and non-superseded conditions of prior sewerage or water quality management permits or orders issued to the herein named permittee or his predecessor shall continue in full force and effect and together with the provisions of this permit shall apply to his successors, lessees, heirs, and assigns.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first receive written approval thereof from the Department. The sewerage facilities shall be constructed under expert engineering supervision and competent inspection.

THREE: Sewers herein approved shall have tight, well-fitting joints, shall be laid with straight alignment and grade and shall have smooth interior surfaces. The sewers shall have adequate foundation support as soil conditions requires. Special care shall be taken in construction of sewers under deep or shallow cover and under other conditions which impose extra hazards to sewer stability. Trenches shall be back-filled such that the sewers will have proper structural stability, with minimum setting and adequate protection against breakage. Concrete used in connection with these sewers shall be protected until cured from injury by water, freezing, drying or other harmful conditions.

FOUR: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

FIVE: No storm water from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers herein approved.

SIX: Attention is directed to the necessity of having a qualified person make a proper study of all industrial wastes discharging or proposed for discharge to the public sewer systems, to determine what degree of preliminary treatment is necessary before these waste may be discharged to the sewer system so that the wastes will not prejudicially affect the sewerage structure or their functioning or the process of sewage treatment.

SEVEN: The permittee shall adopt and enforce an ordinance or otherwise require all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State Law, to be connected thereto; also require the abandonment of privies, cesspools or similar receptacle for human excrement on said premises.

EIGHT: The herein approved and previously constructed sewers shall be maintained in good condition, by repair when necessary and kept free from deposits by flushing or other proper means of cleaning.

NINE: The permittee shall file with the Department of Environmental Resources a satisfactory record or detail plans showing the correct plan of all sewers and sewerage structures as actually constructed together with any other information in connection therewith that may be required.

TEN: The out fall sewer or drain shall be extended to low water mark of the receiving body of water in such a manner as to insure the satisfactory dispersion of its effluent thereinto; insofar as practicable it shall have its outlet submerged; and shall be contructed of cast iron, concrete, or other material approved by the Department; and shall be so protected against the effects of flood water, ice, or other hazards as to reasonable insure its structural stability and freedom from stoppage.

ELEVEN: The permittee shall secure any necessary permission from the proper federal authority for any outfall or sewage treatment structure which discharges into or enters navigable waters and shall obtain approval of any stream crossing, encroachment or change of natural stream conditions coming within the jurisdiction of the Department.

TWELVE: If at any time the sewerage facilities of the permittee, or any part thereof, or the discharge of the effluent therefrom, shall have created a public nuisance, or such discharge is causing or contributing to pollution of the waters of the Commonwealth, the permittee shall forthwith adopt such remedial measures as are acceptable to the Department.

THIRTEEN: Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating stream pollution and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

FOURTEEN: The approval herein given is specifically made contingent upon the permittee acquiring all necessary rights, by easement or otherwise as required, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along, or across private property, with full rights of ingress, egress and regress.

FIFTEEN: When the herein a approved sewage treatment works is completed and before it is placed in operation, the permittee shall notify the Department in writing so that an inspection of the works may be made by a representative of the Department.

SIXTEEN: The various structures and apparatus of the sewage treatment works herein approved shall be maintained in proper condition so that the facilities will individually and collectively preform the functions for which they were designed.

SEVENTEEN: The screenings and sludge shall be so handled that nuisance is not created and shall be disposed of in a sanitary manner satisfactory to the Department.

EIGHTEEN: The permittee shall keep records of operation and efficiency of the waste treatment works and shall submit to the Department, promptly at the end of each month, such report thereon as may be required by the Department.

NINETEEN: The sewage treatment works shall be operated by a competent person or persons. In this connection attention is directed to the necessity for expert advice and supervision over the operation of the sewage treatment works in order to secure efficiency of operation and protection to the waters of the Commonwealth. To this end the permittee shall place the operation of the sewage treatment works under the control of the dsigner of the works or some other person expert in the operation of sewage treatment works, for at least one year after completion thereof and report submitted. The sewage treatment works shall be operated by a operator certified in accordance with the Sewage Treatment Plant and Water Works Operators Certification Act, Act No. 322 approved November 18, 1968 as amended.

TWENTY: The right to discharge the effluent from the herein approved sewage treatment works into the waters of the Commonwealth is contingent upon such operation of these works as will at all times produce an effluent of a quality satisfactory to the Department. If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory for such discharge, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water.

TWENTY-ONE: The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air, and to the highly toxic character of certain gases arising from such digestion or from sewage in insufficiently ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion, or danger from toxic gases may occur, the permittee shall post conspicuously proper warnings of a permanent and easily legible character and shall provide for the thorough instruction of all employes concerning the aforesaid hazards and in first aid and emergency methods of meeting such hazards and shall further provide, in a conveniently accessible place, all necessary equipment and material therefor.

TWENTY-TWO: Cross connections between a potable water supply and a sewerage system constitute a potential danger to the public health. Therefore, all direct and indirect connections whereby under normal or abnormal conditions the potable water supply may become contaminated from an inferior water supply, from any unit of the sewage treatment works, or by any appurtenance thereof or from any part of a sewerage system, are hereby specifically prohibited. The permittee is further warned against permitting to be made permanent any temporary connection with a potable supply designed to be held in place while being used for flushing or other purposes, and is also cautioned against the danger of back siphonage through portable hose lines and similar avenues of possible contamination.

TWENTY-THREE: Effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of Fecal Coliform organisms as a geometric average value nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

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TWENTY-FOUR: The approval herein granted for sewers is limited to the right to construct the sewers, but approval of connection there to is specifically withheld until such time approval for use thereof is granted by the Department.

TWENTY-FIVE: The attention of the permittee is directed to the fact that the effluent from the herein approved sewage treatment works is discharged to a dry stream normally without the benefit of dilution. If the effluent creates a health hazard or nuisance, the permittee shall upon notice from the Department of Environmental Resources, provide such additional treatment as may be required by the Department.

TWENTY-SIX: If facilities become available for conveying the sewage to and treating it at a more suitable location, upon order from the Department of Environmental Resources, the permittee shall provide for the discharge of the sewage to such facilities and shall abandon the use of the herein approved sewage treatment works.

TWENTY-SEVEN: The plant hereby approved is required to effect secondary treatment of the sewage which it receives. Secondary treatment is that treatment that will reduce the organic waste load as measured by the biochemical oxygen demand test by at least 85% during the period May 1 to October 31 and by at least 75% during the remainder of the year based on a five consecutive day average of values; will remove practically all of the suspended solids; will provide effective disinfection to control disease producing organisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, greases, acids, alkalis, toxic, taste and odor producing substances, color, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

TWENTY-EIGHT: Records of the operation of the single residence sewage treatment works as the State Department of Environmental Resources may deem necessary for the proper control of the operation of the treatment works shall be kept on forms satisfactory to the Department and shall be filed in the Regional Office of the Department at intervals as specified.

TWENTY-NINE: The permittee shall submit to the Department by March 31 of each year a report showing the hydraulic and organic load compared to the design load and the expected load for a period of five years hence.

THIRTY: The permittee shall prohibit additional connections to a sewer system or load from being placed upon a sewage treatment plant when the plant capacity will be exceeded within five years unless steps have been taken to enlarge the plant within that time.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

Special Conditions Relative To Sewerage - 1972

I The plant hereby approved is required to effect (specify secondary or tertiary) treatment of the sewage which it receives. (Specify secondary or tertiary) treatment is treatment that will, for the purpose of this permit, reduce the organic waste load at least (Specify % BOD removal, suspended solids, P04 etc. or concentration permitted in effluent) during the remainder of the year based on a five consecutive day average of values; will remove practically all of the suspended solids; will provide effective disinfection to control disease producing orginisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, grease, acids, alkalis, toxic, taste and odor producing substances, color, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

II The plant hereby approved is required to effect the specified degree of reduction of BOD and suspended solids and under no circumstances may more than (specify) pounds of BOD or (specify) pound of suspended solids (or any other parameter) be discharge on any one day.

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Sewerage Permit No. 6772410

ER 711.308 BOOK 66C PAGE 1044

STATE OF PENNSYLVANIA }
COUNTY OF MIFFLIN } SS

Elvin F. Hoover

On the 2nd day of January in the year one thousand nine hundred and 73 before me, the Subscriber, a Notary Public, came the above named Elvin F. Hoover, Regional Sanitary Engineer and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

Pearl A. Bodtorf
NOTARY PUBLIC
Pearl A. Bodtorf, Notary Public
Lewistown Borough, Mifflin Co., Pa.
My Commission expires February 8, 1976

State of Pennsylvania, }
County of ... }
66-C Page 1028
the 11th day of January, 1973
Allen H. Smith
Recorder of Deeds

19029

ER-BWQ-15 Rev. 2-73

Sewage Permit

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18218

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

WATER QUALITY MANAGEMENT PERMIT NO. 6773413

A. PERMITTEE (Name and Address)

York City Sewer Authority
154 Merion Road
York, Pennsylvania 17405

B. PROJECT LOCATION

Municipality York

County York County

C. TYPE OR FACILITY OR ESTABLISHMENT

Sanitary Sewers

D. NAME OF MINE, OPERATION OR AREA SERVED

Separation combined sewers in portion of City of York

YORK, YORK COUNTY, PA.

E. THIS PERMIT APPROVES

1. Plans For Construction of

a. [X] PUMP STATIONS, SEWERS AND APPURTENANCES
b. [ ] SEWAGE TREATMENT FACILITIES
c. [ ] MINE DRAINAGE TREATMENT FACILITIES
d. [ ] INDUSTRIAL WASTE TREATMENT FACILITIES
e. [ ] OUTFALL & HEADWALL
f. [ ] STREAM CROSSING

2. The Discharge of:

a. [ ] TREATED
[ ] UNTREATED
b. [ ] INDUSTRIAL WASTE
[ ] MINE DRAINAGE
[X] SEWAGE

3. The Operation of:

[ ] MINE MAXIMUM AREA TO BE DEEP MINED _____
[ ] DAM

4. An Erosion and Sedimentation Control Plan [ ]
PROJECT AREA IS _____ ACRES.

5. Nature of Discharge or Impoundment:

[X] DISCHARGE TO SURFACE WATER [ ] DISCHARGE TO GROUND WATER
[ ] IMPOUNDMENT To Codorus Creek from York Sewage Plant.
(Name of Stream to which discharged or drainage area on which ground water discharge takes place or impoundment is located).

F. You are hereby authorized to construct, operate or discharge, as indicated above, provided that you comply with the following:

1. All representations regarding operations, construction, maintenance and closing procedures as well as all other matters set forth in your application and its supporting documents (Application No. 6773413 dated February 14, 19 73, and amendments dated April 26, 19 73), Such application, its supporting documents and amendments are hereby made a part of this permit.
2. Conditions numbered 1 thru 14, 21, 22 and 30 of the Sewerage Standard Conditions dated _____, 1972 which conditions are attached hereto and are made a part of this permit.
3. Special conditions(s) designated _____ which are attached hereto and are made a part of this permit.

G. The Authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application or its supporting documents and amendments and the standard or special conditions, the standard or special conditions shall apply.
2. Failure to comply with the Rules and Regulations of the Department or the terms or conditions of this permit shall void the authority given to the permittee by the issuance of the permit.
3. This permit is issued pursuant to the Clean Streams Law, The Act of June 22, 1937, P.L. 1987 as amended and/or the Water Obstruction Act of June 25, 1913, P.L. 555 as amended.
Issuance of this permit shall not relieve the permittee of any responsibility under any other law.

PERMIT ISSUED

DEPARTMENT OF ENVIRONMENTAL RESOURCES

DATE September 25, 1973

BY James V. Donato
James V. Donato

TITLE Acting Regional Sanitary Engineer

EQ-711.310
Rev. 9/72

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

STANDARD CONDITIONS RELATING TO SEWERAGE - 1972

ONE: All relevant and non-superseded conditions of prior sewerage or water quality management permits or orders issued to the herein named permittee or his predecessor shall continue in full force and effect and together with the provisions of this permit shall apply to his successors, lessees, heirs, and assigns.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first receive written approval thereof from the Department. The sewerage facilities shall be constructed under expert engineering supervision and competent inspection.

THREE: Sewers herein approved shall have tight, well-fitting joints, shall be laid with straight alignment and grade and shall have smooth interior surfaces. The sewers shall have adequate foundation support as soil conditions requires. Special care shall be taken in construction of sewers under deep or shallow cover and under other conditions which impose extra hazards to sewer stability. Trenches shall be back-filled such that the sewers will have proper structural stability, with minimum setting and adequate protection against breakage. Concrete used in connection with these sewers shall be protected until cured from injury by water, freezing, drying or other harmful conditions.

FOUR: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

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FIVE: No storm water from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers herein approved.

SIX: Attention is directed to the necessity of having a qualified person make a proper study of all industrial wastes discharging or proposed for discharge to the public sewer systems, to determine what degree of preliminary treatment is necessary before these waste may be discharged to the sewer system so that the wastes will not prejudicially affect the sewerage structure or their functioning or the process of sewage treatment.

SEVEN: The permittee shall adopt and enforce an ordinance or otherwise require all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State Law, to be connected thereto; also require the abandonment of privies, cesspools or similar receptacle for human excrement on said premises.

EIGHT: The herein approved and previously constructed sewers shall be maintained in good condition, by repair when necessary and kept free from deposits by flushing or other proper means of cleaning.

NINE: The permittee shall file with the Department of Environmental Resources a satisfactory record or detail plans showing the correct plan of all sewers and sewerage structures as actually constructed together with any other information in connection therewith that may be required.

TEN: The out fall sewer or drain shall be extended to low water mark of the receiving body of water in such a manner as to insure the satisfactory dispersion of its effluent thereinto; insofar as practicable it shall have its outlet submerged; and shall be contructed of cast iron, concrete, or other material approved by the Department; and shall be so protected against the effects of flood water, ice, or other hazards as to reasonable insure its structural stability and freedom from stoppage.

ELEVEN: The permittee shall secure any necessary permission from the proper federal authority for any outfall or sewage treatment structure which discharges into or enters navigable waters and shall obtain approval of any stream crossing, encroachment or change of natural stream conditions coming within the jurisdiction of the Department.

TWELVE: If at any time the sewerage facilities of the permittee, or any part thereof, or the discharge of the effluent therefrom, shall have created a public nuisance, or such discharge is causing or contributing to pollution of the waters of the Commonwealth, the permittee shall forthwith adopt such remedial measures as are acceptable to the Department.

THIRTEEN: Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating stream pollution and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

FOURTEEN: The approval herein given is specifically made contingent upon the permittee acquiring all necessary rights, by easement or otherwise as required, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along, or across private property, with full rights of ingress, egress and regress.

FIFTEEN: When the herein a approved sewage treatment works is completed and before it is placed in operation, the permittee shall notify the Department in writing so that an inspection of the works may be made by a representative of the Department.

SIXTEEN: The various structures and apparatus of the sewage treatment works herein approved shall be maintained in proper condition so that the facilities will individually and collectively preform the functions for which they were designed.

SEVENTEEN: The screenings and sludge shall be so handled that nuisance is not created and shall be disposed of in a sanitary manner satisfactory to the Department.

EIGHTEEN: The permittee shall keep records of operation and efficiency of the waste treatment works and shall submit to the Department, promptly at the end of each month, such report thereon as may be required by the Department.

NINETEEN: The sewage treatment works shall be operated by a competent person or persons. In this connection attention is directed to the necessity for expert advice and supervision over the operation of the sewage treatment works in order to secure efficiency of operation and protection to the waters of the Commonwealth. To this end the permittee shall place the operation of the sewage treatment works under the control of the dsigner of the works or some other person expert in the operation of sewage treatment works, for at least one year after completion thereof and report submitted. The sewage treatment works shall be operated by a operator certified in accordance with the Sewage Treatment Plant and Water Works Operators Certification Act, Act No. 322 approved November 18, 1968 as amended.

TWENTY: The right to discharge the effluent from the herein approved sewage treatment works into the waters of the Commonwealth is contingent upon such operation of these works as will at all times produce an effluent of a quality satisfactory to the Department. If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory for such discharge, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water.

TWENTY-ONE: The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air, and to the highly toxic character of certain gases arising from such digestion or from sewage in insufficiently ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion, or danger from toxic gases may occur, the permittee shall post conspicuously proper warnings of a permanent and easily legible character and shall provide for the thorough instruction of all employes concerning the aforesaid hazards and in first aid and emergency methods of meeting such hazards and shall further provide, in a conveniently accessible place, all necessary equipment and material therefor.

TWENTY-TWO: Cross connections between a potable water supply and a sewerage system constitute a potential danger to the public health. Therefore, all direct and indirect connections whereby under normal or abnormal conditions the potable water supply may become contaminated from an inferior water supply, from any unit of the sewage treatment works, or by any appurtenance thereof or from any part of a sewerage system, are hereby specifically prohibited. The permittee is further warned against permitting to be made permanent any temporary connection with a potable supply designed to be held in place while being used for flushing or other purposes, and is also cautioned against the danger of back siphonage through portable hose lines and similar avenues of possible contamination.

TWENTY-THREE: Effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of Fecal Coliform organisms as a geometric average value nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

TWENTY-FOUR: The approval herein granted for sewers is limited to the right to construct the sewers, but approval of connection there to is specifically withheld until such time approval for use thereof is granted by the Department.

TWENTY-FIVE: The attention of the permittee is directed to the fact that the effluent from the herein approved sewage treatment works is discharged to a dry stream normally without the benefit of dilution. If the effluent creates a health hazard or nuisance, the permittee shall upon notice from the Department of Environmental Resources, provide such additional treatment as may be required by the Department.

TWENTY-SIX: If facilities become available for conveying the sewage to and treating it at a more suitable location, upon order from the Department of Environmental Resources, the permittee shall provide for the discharge of the sewage to such facilities and shall abandon the use of the herein approved sewage treatment works.

TWENTY-SEVEN: The plant hereby approved is required to effect secondary treatment of the sewage which it receives. Secondary treatment is that treatment that will reduce the organic waste load as measured by the biochemical oxygen demand test by at least 85% during the period May 1 to October 31 and by at least 75% during the remainder of the year based on a five consecutive day average of values; will remove practically all of the suspended solids; will provide effective disinfection to control disease producing organisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, greases, acids, alkalis, toxic, taste and odor producing substances, color, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

TWENTY-EIGHT: Records of the operation of the single residence sewage treatment works as the State Department of Environmental Resources may deem necessary for the proper control of the operation of the treatment works shall be kept on forms satisfactory to the Department and shall be filed in the Regional Office of the Department at intervals as specified.

TWENTY-NINE: The permittee shall submit to the Department by March 31 of each year a report showing the hydraulic and organic load compared to the design load and the expected load for a period of five years hence.

THIRTY: The permittee shall prohibit additional connections to a sewer system or load from being placed upon a sewage treatment plant when the plant capacity will be exceeded within five years unless steps have been taken to enlarge the plant within that time.

THIRTY-ONE: The permittee shall take the necessary measures for the construction of sewerage facilities in a manner compatible with good conservation methods to minimize the effect on the environment, the regimen of the stream bed or channel, and to prevent sediment and pollutants from entering the waters of the Commonwealth.

THIRTY-TWO: The local waterways patrolmen of the Pennsylvania Fish Commission shall be notified when the construction of the stream crossing and outfall is started and completed. A permit must be secured from the Pennsylvania Fish Commission if the use of explosives is required. The permittee shall notify the local waterways patrolmen when explosives are to be used.

THIRTY-THREE: If future operations by the Commonwealth of Pennsylvania require modification of the stream crossing, and/or outfall or there shall be unreasonable obstruction to the free passage of floods or navigation, the permittee shall remove or alter the structural work or obstruction without expense to the Commonwealth of Pennsylvania. If upon the revocation of the permit, the work shall not be completed, the permittee, at his own expense and in such time and manner as the Department may require, shall remove any or all portions of the incompleted work and restore the watercourse to its former condition. No claim shall be made against the Commonwealth of Pennsylvania on account of any such removal or alteration.

Sewerage Permit No. 6773413

ER 711.308

STATE OF PENNSYLVANIA } SS
COUNTY OF MIFFLIN }

James V. Donato

On the 27th day of September in the year one thousand nine hundred and 73 before me, the Subscriber, a Notary Public, came the above named James V. Donato, Acting Regional Sanitary Engineer and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

Pearl A. Bodtorf
NOTARY PUBLIC
Pearl A. Bodtorf, Notary Public
Lewistown Borough, Mifflin Co., Pa.
My Commission expires February 8, 1976

State of Pennsylvania, }
County of York, }
Recorded in Record Book 67-C Page 790
the 5th day of October A. D., 19 73
Allen H. Smith
Recorder of Deeds

ER-BWQ-75 Rev. 9/73

BOOK 688 PAGE 130

01223 COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

11674

WATER QUALITY MANAGEMENT PERMIT NO. 6773407

A. PERMITTEE (Name and Address)

York City Sewer Authority
154 Merion Road
York, Pennsylvania

RECORDED
JUL 23 2 29 PM '74
RECORDER OF DEEDS OFFICE
YORK COUNTY, PA.

B. PROJECT LOCATION

Municipality: York
County: York County

C. TYPE OF FACILITY OR ENVIRONMENT

Addition of Activated Carbon Units for Advanced Waste Treatment

D. NAME OF MINE, OPERATION OR AREA SERVED

Facilities Serve City of York and Contiguous Areas.

E. THIS PERMIT APPROVES

1. Plans For Construction of

- a. ☐ PUMP STATIONS; SEWERS AND APPURTENANCES
- b. ☒ SEWAGE TREATMENT FACILITIES
- c. ☐ MINE DRAINAGE TREATMENT FACILITIES
- d. ☐ INDUSTRIAL WASTE TREATMENT FACILITIES
- e. ☐ OUTFALL & HEADWALL
- f. ☐ STREAM CROSSING

2. The Discharge of:

- a. ☒ TREATED
- ☐ UNTREATED
- b. ☐ INDUSTRIAL WASTE
- ☐ MINE DRAINAGE
- ☒ SEWAGE

3. The Operation of:

- ☐ MINE MAXIMUM AREA TO BE DEEP MINED _____
- ☐ DAM

4. An Erosion and Sedimentation Control Plan ☐
PROJECT AREA IS _____ ACRES.

5. Nature of Discharge or Impoundment:

☒ DISCHARGE TO SURFACE WATER ☐ DISCHARGE TO GROUND WATER
☐ IMPOUNDMENT

Codorus Creek
(Name of Stream to which discharged or drainage area on which ground water discharge takes place or impoundment is located).

F. You are hereby authorized to construct, operate or discharge, as indicated above, provided that you comply with the following :

1. All representations regarding operations, construction, maintenance and closing procedures as well as all other matters set forth in your application and its supporting documents (Application No. 6773407 dated February 28, 1973), and amendments dated _____. Such application, it's supporting documents and amendments are hereby made a part of this permit.
2. Conditions numbered 1, 2, 9 thru 23, 29 and 30 of the Sewerage Standard Conditions dated 1972 which conditions are attached hereto and are made a part of this permit.
3. Special condition(s) designated A and B which are attached hereto and are made a part of this permit.

G. The Authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application or its supporting documents and amendments and the standard or special conditions, the standard or special conditions shall apply.
2. Failure to comply with the Rules and Regulations of the Department or the terms or conditions of this permit shall void the authority given to the permittee by the issuance of the permit.
3. This permit is issued pursuant to the Clean Streams Law, The Act of June 22, 1937, P.L. 1987 as amended and/or the Water Obstruction Act of June 25, 1913, P.L. 555 as amended. Issuance of this permit shall not relieve the permittee of any responsibility under any other law.

PERMIT ISSUED

DATE July 17, 1974

DEPARTMENT OF ENVIRONMENTAL RESOURCES

BY James V. Donato
James V. Donato

TITLE Acting Regional Sanitary Engineer

Sewerage Permit
No. 6773407

This permit is issued subject to all Department of Environmental Resources Rules and Regulations now in force, and the following Special Conditions:

A. The plant hereby approved is required to produce an effluent in which the 5-day biochemical oxygen demand will not exceed 7 mg/l for the period May 1 through October 31 and 14 mg/l for the remainder of the year; the total phosphorus as PO_4 will not exceed 6 mg/l and the dissolved oxygen will be at least 6 mg/l.

B. In addition the plant hereby approved is required to provide treatment that will remove practically all of the suspended solids; will provide effective disinfection toocontrol disease producing organisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, greases, acids, alkalis, toxic, taste and odor producing substances, color, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

It is required by law that this permit before being operative shall be recorded in the office of the Recorder of Deeds in York County.

BOOK 688 PAGE 132

Rev. 5-73

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

STANDARD CONDITIONS RELATING TO SEWERAGE - 1972

ONE: All relevant and non-superseded conditions of prior sewerage or water quality management permits or orders issued to the herein named permittee or his predecessor shall continue in full force and effect and together with the provisions of this permit shall apply to his successors, lessees, heirs, and assigns.

TWO: During construction no radical changes shall be made from the plans, designs, and other data herein approved unless the permittee shall first receive written approval thereof from the Department. The sewerage facilities shall be constructed under expert engineering supervision and competent inspection.

THREE: Sewers herein approved shall have tight, well-fitting joints, shall be laid with straight alignment and grade and shall have smooth interior surfaces. The sewers shall have adequate foundation support as soil conditions requires. Special care shall be taken in construction of sewers under deep or shallow cover and under other conditions which impose extra hazards to sewer stability. Trenches shall be back-filled such that the sewers will have proper structural stability, with minimum setting and adequate protection against breakage. Concrete used in connection with these sewers shall be protected until cured from injury by water, freezing, drying or other harmful conditions.

FOUR: Manholes shall be placed and constructed as shown upon the herein approved plans except, that if not already so provided, they shall be placed on all sewers at junctions, at each change in grade or alignment, at summit ends, and upon straight lines at intervals not exceeding four hundred feet, or wherever necessary to permit satisfactory entrance to and maintenance of the sewers; manhole inverts shall be so formed as to facilitate the flow of the sewage and to prevent the stranding of sewage solids, and the whole manhole structure shall have proper structural strength and be so constructed as to prevent undue infiltration, entrance of street wash or grit, and to provide convenient and safe means of access and maintenance.

FIVE: No storm water from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers herein approved.

SIX: Attention is directed to the necessity of having a qualified person make a proper study of all industrial wastes discharging or proposed for discharge to the public sewer systems, to determine what degree of preliminary treatment is necessary before these waste may be discharged to the sewer system so that the wastes will not prejudicially affect the sewerage structure or their functioning or the process of sewage treatment.

SEVEN: The permittee shall adopt and enforce an ordinance or otherwise require all occupied buildings on premises accessible to a public sewer used in conformity with the requirements of State Law, to be connected thereto; also require the abandonment of privies, cesspools or similar receptacle for human excrement on said premises.

EIGHT: The herein approved and previously constructed sewers shall be maintained in good condition, by repair when necessary and kept free from deposits by flushing or other proper means of cleaning.

NINE: The permittee shall file with the Department of Environmental Resources a satisfactory record or detail plans showing the correct plan of all sewers and sewerage structures as actually constructed together with any other information in connection therewith that may be required.

TEN: The out fall sewer or drain shall be extended to low water mark of the receiving body of water in such a manner as to insure the satisfactory dispersion of its effluent thereinto; insofar as practicable it shall have its outlet submerged; and shall be contructed of cast iron, concrete, or other material approved by the Department; and shall be so protected against the effects of flood water, ice, or other hazards as to reasonable insure its structural stability and freedom from stoppage.

ELEVEN: The permittee shall secure any necessary permission from the proper federal authority for any outfall or sewage treatment structure which discharges into or enters navigable waters and shall obtain approval of any stream crossing, encroachment or change of natural stream conditions coming within the jurisdiction of the Department.

TWELVE: If at any time the sewerage facilities of the permittee, or any part thereof, or the discharge of the effluent therefrom, shall have created a public nuisance, or such discharge is causing or contributing to pollution of the waters of the Commonwealth, the permittee shall forthwith adopt such remedial measures as are acceptable to the Department.

THIRTEEN: Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating stream pollution and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

FOURTEEN: The approval herein given is specifically made contingent upon the permittee acquiring all necessary rights, by easement or otherwise as required, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along, or across private property, with full rights of ingress, egress and regress.

FIFTEEN: When the herein a approved sewage treatment works is completed and before it is placed in operation, the permittee shall notify the Department in writing so that an inspection of the works may be made by a representative of the Department.

SIXTEEN: The various structures and apparatus of the sewage treatment works herein approved shall be maintained in proper condition so that the facilities will individually and collectively preform the functions for which they were designed.

SEVENTEEN: The screenings and sludge shall be so handled that nuisance is not created and shall be disposed of in a sanitary manner satisfactory to the Department.

EIGHTEEN: The permittee shall keep records of operation and efficiency of the waste treatment works and shall submit to the Department, promptly at the end of each month, such report thereon as may be required by the Department.

NINETEEN: The sewage treatment works shall be operated by a competent person or persons. In this connection attention is directed to the necessity for expert advice and supervision over the operation of the sewage treatment works in order to secure efficiency of operation and protection to the waters of the Commonwealth. To this end the permittee shall place the operation of the sewage treatment works under the control of the dsigner of the works or some other person expert in the operation of sewage treatment works, for at least one year after completion thereof and report submitted. The sewage treatment works shall be operated by a operator certified in accordance with the Sewage Treatment Plant and Water Works Operators Certification Act, Act No. 322 approved November 18, 1968 as amended.

TWENTY: The right to discharge the effluent from the herein approved sewage treatment works into the waters of the Commonwealth is contingent upon such operation of these works as will at all times produce an effluent of a quality satisfactory to the Department. If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory for such discharge, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water.

TWENTY-ONE: The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air, and to the highly toxic character of certain gases arising from such digestion or from sewage in insufficiently ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion, or danger from toxic gases may occur, the permittee shall post conspicuously proper warnings of a permanent and easily legible character and shall provide for the thorough instruction of all employes concerning the aforesaid hazards and in first aid and emergency methods of meeting such hazards and shall further provide, in a conveniently accessible place, all necessary equipment and material therefor.

TWENTY-TWO: Cross connections between a potable water supply and a sewerage system constitute a potential danger to the public health. Therefore, all direct and indirect connections whereby under normal or abnormal conditions the potable water supply may become contaminated from an inferior water supply, from any unit of the sewage treatment works, or by any appurtenance thereof or from any part of a sewerage system, are hereby specifically prohibited. The permittee is further warned against permitting to be made permanent any temporary connection with a potable supply designed to be held in place while being used for flushing or other purposes, and is also cautioned against the danger of back siphonage through portable hose lines and similar avenues of possible contamination.

TWENTY-THREE: Effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of Fecal Coliform organisms as a geometric average value nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

TWENTY-FOUR: The approval herein granted for sewers is limited to the right to construct the sewers, but approval of connection there to is specifically withheld until such time approval for use thereof is granted by the Department.

TWENTY-FIVE: The attention of the permittee is directed to the fact that the effluent from the herein approved sewage treatment works is discharged to a dry stream normally without the benefit of dilution. If the effluent creates a health hazard or nuisance, the permittee shall upon notice from the Department of Environmental Resources, provide such additional treatment as may be required by the Department.

TWENTY-SIX: If facilities become available for conveying the sewage to and treating it at a more suitable location, upon order from the Department of Environmental Resources, the permittee shall provide for the discharge of the sewage to such facilities and shall abandon the use of the herein approved sewage treatment works.

TWENTY-SEVEN: The plant hereby approved is required to effect secondary treatment of the sewage which it receives. Secondary treatment is that treatment that will reduce the organic waste load as measured by the biochemical oxygen demand test by at least 85% during the period May 1 to October 31 and by at least 75% during the remainder of the year based on a five consecutive day average of values; will remove practically all of the suspended solids; will provide effective disinfection to control disease producing organisms; will provide satisfactory disposal of sludge; and will reduce the quantities of oil, greases, acids, alkalis, toxic, taste and odor producing substances, color, and other substances inimical to the public interest to levels that will not pollute the receiving stream.

TWENTY-EIGHT: Records of the operation of the single residence sewage treatment works as the State Department of Environmental Resources may deem necessary for the proper control of the operation of the treatment works shall be kept on forms satisfactory to the Department and shall be filed in the Regional Office of the Department at intervals as specified.

TWENTY-NINE: The permittee shall submit to the Department by March 31 of each year a report showing the hydraulic and organic load compared to the design load and the expected load for a period of five years hence.

THIRTY: The permittee shall prohibit additional connections to a sewer system or load from being placed upon a sewage treatment plant when the plant capacity will be exceeded within five years unless steps have been taken to enlarge the plant within that time.

THIRTY-ONE: The permittee shall take the necessary measures for the construction of sewerage facilities in a manner compatible with good conservation methods to minimize the effect on the environment, the regimen of the stream bed or channel, and to prevent sediment and pollutants from entering the waters of the Commonwealth.

THIRTY-TWO: The local waterways patrolmen of the Pennsylvania Fish Commission shall be notified when the construction of the stream crossing and outfall is started and completed. A permit must be secured from the Pennsylvania Fish Commission if the use of explosives is required. The permittee shall notify the local waterways patrolmen when explosives are to be used.

THIRTY-THREE: If future operations by the Commonwealth of Pennsylvania require modification of the stream crossing, and/or outfall or there shall be unreasonable obstruction to the free passage of floods or navigation, the permittee shall remove or alter the structural work or obstruction without expense to the Commonwealth of Pennsylvania. If upon the revocation of the permit, the work shall not be completed, the permittee, at his own expense and in such time and manner as the Department may require, shall remove any or all portions of the incompleted work and restore the watercourse to its former condition. No claim shall be made against the Commonwealth of Pennsylvania on account of any such removal or alteration.

BOOK 688 PAGE 137

ER-BWQ-69 Rev. 4-73

BOOK 68B PAGE 138 Sewerage Permit No. 6773407

STATE OF PENNSYLVANIA }
COUNTY OF MIFFLIN } SS

James V. Donato

On the 17th day of July in the year one thousand nine hundred and 74 before me, the Subscriber, a Notary Public, came the above named James V. Donato, Acting Regional Sanitary Engineer and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

PEARL A. DODTORF NOTARY PUBLIC COMMONWEALTH OF PENNSYLVANIA

Pearl A. Dodtorf
NOTARY PUBLIC
Notary Public
Pearl A. Dodtorf, Notary Public
Lewistown Borough, Mifflin Co., Pa.
My Commission expires February 8, 1976

WILL TO 42 E King St York Pa.

State of Pennsylvania, }
County of York, }
Recorded in Record Book 68-B Page 130
the 23rd day of April A. D., 19 74.
E. Gelsinger
Recorder of Deeds

ER-BWQ-15.2 10/78

BOOK 83F PAGE 923 0 1 2 3 7 5 11627

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

WATER QUALITY MANAGEMENT PERMIT - PART I

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

SEWAGE PERMIT NO. PA 0026263

In compliance with the provisions of the Clean Water Act, 33 U.S.C. 1251 et. seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et. seq.,

York City Sewer Authority
42 East King Street
York, PA 17401

is hereby authorized to discharge from a facility located in

Manchester Township
York County

to the receiving waters named

Codorus Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit shall become effective on July 21, 1981.

This permit and the authorization to discharge shall expire at midnight July 21, 1986.

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the standard or special conditions, the standard or special conditions shall apply.

2. Failure to comply with the rules and regulations of the Department or with the terms or conditions of this permit shall void the authority to discharge given to the permittee by this permit.

3. It is required by law that this permit, before becoming operative, shall be recorded in the Office of the Recorder of Deeds for the county wherein the outlet of said sewer system is located.

PERMIT ISSUED

DATE July 21, 1981

BY Frederick A. Marrocco

TITLE Frederick A. Marrocco
Regional Water Quality Manager
Harrisburg Regional Office

Date Prepared

BUREAU OF WATER QUALITY MANAGEMENT
SEWERAGE PERMIT NO. PA. 0026263
PART A

1. [X] Final [ ] Interim

Effluent Limitations and Monitoring Requirements for Discharge 001, To Codorus Creek
Located at Latitude 39°59'09", Longitude 76°43'26"

A. During the Period beginning 7/21/81 and lasting through 7/21/86 the Permittee is authorized to discharge.
B. Average daily flow of effluent discharged from the waste water treatment facility shall not exceed 18 million gallons per day (mgd) or 68,130 cubic meters per day.
C. The quality of effluent shall be limited at all times as specified in Management Requirement "P" and as follows:

EFFLUENT PARAMETERS (1)	DISCHARGE LIMITATIONS									MONITORING REQUIREMENTS (4)	
	EFFLUENT LOADINGS						EFFLUENT CONCENTRATIONS			MEASUREMENT FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE		WEEKLY AVERAGE		DAILY MAXIMUM		MONTHLY AVERAGE	WEEKLY AVERAGE	INSTANTANEOUS MAXIMUM		
	Kg/Day	Lb/Day	Kg/Day	Lb/Day	Kg/Day	Lb/Day	SPECIFY UNITS				
BOD-5 Day (2)	See Below									-	
Suspended Solids	2043	4504	3036	6755			30 mg/l	45 mg/l	60 mg/l	Daily	24 hr. comp.
NH_3-N (6-1 to 10-31)	119	263	119	263	119	263	1.75 mg/l	1.75 mg/l	3.5 mg/l	Daily	24 hr. comp.
NH_3-N (11-1 to 5-31)	357	788	357	788	357	788	5.25 mg/l	5.25 mg/l	10.5 mg/l	Daily	24 hr. comp.
Phosphorus as "P"	136	300	204	450			2 mg/l	3 mg/l	4 mg/l	Daily	24 hr. comp.
D.O. (Minimum)	6 mg/l at all times									Daily	Grab
Fecal Coliform							See Footnote (3) & Part C			Daily	Grab
pH	Within Limits of 6 to 9 Standard Units at all times.									Daily	Grab
BOD 5-day (5/1 to 10/31)	681	1501	1021	2252			10 mg/l	15 mg/l	20 mg/l	Daily	24 hr. comp.
BOD 5-day (11/1 to 4/30)	1021	2252	1532	3378			15 mg/l	22.5 mg/l	30 mg/l	Daily	24 hr. comp.
Flow										Cont.	Meas.
Chlorine Residua										Daily	Grab

(1) For substances not specifically limited in the permit, the permittee is limited to the amount of substances reported in the NPDES application. The permittee is not authorized to discharge any substances in excess of that reported in the NPDES application.

BOOK 83F PAGE 924

Date Prepared

BUREAU OF WATER QUALITY MANAGEMENT
SEWERAGE PERMIT NO. PA. 0026263
PART A

1. [X] Final [ ] Interim

Effluent Limitations and Monitoring Requirements for Discharge 002, To Codorus Creek
Located at Latitude 39°59'18", Longitude 76°43'27"

A. During the Period beginning 7/21/81 and lasting through 7/21/86 the Permittee is authorized to discharge.
B. Average daily flow of effluent discharged from the waste water treatment facility shall not exceed 8 million gallons per day (mgd) or 30,280 cubic meters per day.
C. The quality of effluent shall be limited at all times as specified in Management Requirement "P" and as follows:

EFFLUENT PARAMETERS (1)	DISCHARGE LIMITATIONS									MONITORING REQUIREMENTS (4)	
	EFFLUENT LOADINGS						EFFLUENT CONCENTRATIONS			MEASUREMENT FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE		WEEKLY AVERAGE		DAILY MAXIMUM		MONTHLY AVERAGE	WEEKLY AVERAGE	INSTANTANEOUS MAXIMUM		
	Kg/Day	Lb/Day	Kg/Day	Lb/Day	Kg/Day	Lb/Day	SPECIFY UNITS				
BOD-5 Day (2)	See Below										
Suspended Solids	908	2002	1361	3002			30 mg/l	45 mg/l	60 mg/l		
NH_3-N (6-1 to 10-31)	53	117	53	117	53	117	1.75 mg/l	5.25 mg/l	3.5 mg/l		
NH_3-N (11-1 to 5-31)	159	350	159	350	159	350	5.25 mg/l	5.25 mg/l	10.5 mg/l		
Phosphorus as "P"	60	133	91	200			2 mg/l	3 mg/l	4 mg/l		
D.O. (Minimum)	6 mg/l at all times										
Fecal Coliform							See Footnote (3) & Part C				
pH	Within Limits of 6 to 9 Standard Units at all times.										
BOD 5-day (5/1 to 10/31)	302	667	454	1001			10 mg/l	15 mg/l	20 mg/l		
BOD 5-day (11/1 to 4/30)	454	1001	681	1501			15 mg/l	22.5 mg/l	30 mg/l		
Flow											
Chlorine Residual											

(1) For substances not specifically limited in the permit, the permittee is limited to the amount of substances reported in the NPDES application. The permittee is not authorized to discharge any substances in excess of that reported in the NPDES application.

BOOK 83F PAGE 925

Emergency Raw Sewage Bypass

Point source 003 serves as an emergency raw sewage bypass necessitated by wet weather flows exceeding the peak hydraulic pumping capacity at the treatment works and is permitted to discharge only for such reason. There are at this time no specific effluent limitations on this discharge. The bypass shall be monitored for cause, frequency, duration and quantity of flow. This data shall be reported quarterly as an attachment to the Discharge Monitoring Report Form. The permit issuing authority may require a plan of action to correct such bypasses if degradation of the receiving stream results.

Point Source - Outfall 003

Location - 39° 59' 08"
76° 43' 26"

Receiving Stream - Codorus Creek

FOOTNOTES (Continued)

(2) Other measurements of oxygen demand can be substituted for Biochemical Oxygen Demand (BOD) where the permittee can demonstrate long-term correlation of the method with BOD values. Substitution of such measurements must receive prior approval of the permitting authority.

(3) Effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of fecal coliform organisms as a geometric average value, nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

(4) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

At discharge points from each treatment plant.

D. Definitions

(1) Average Daily Flow - The arithmetic mean of daily flow measurements taken over a period of 30 consecutive days.

(2) The "monthly average" effluent loading means the total discharge by weight during a calendar month divided by the number of days in the month that the facility was operating. Where less than daily sampling is required by this permit, the monthly average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

(3) The "weekly average" effluent loading means the total discharge by weight during a calendar week divided by the number of days in the week that the facility was operating. Where less than daily sampling is required by this permit, the weekly average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

(4) The "daily maximum" effluent loading means the total discharge by weight during any calendar day.

BOOK 83-F

PAGE(S) 928

ARE

MISSING

PART A

2. MONITORING AND REPORTING

A. Sampling and Analysis Methods

Test procedures for analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Act under which such procedures may be required. These regulations are codified at 40 CFR Part 136.

B. Self-Monitoring and Reporting Requirements

The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the discharge. Monitoring data required by this permit shall be summarized on an average monthly basis. Reports of these monthly values are to be submitted monthly, using a Discharge Monitoring Report Form (EPA Form T-40) within 28 days after the end of each reporting period. The first monthly report will be submitted within 60 days from the first day the facility starts operating unless specified otherwise. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced. (In cases where there is no treatment plant at this time but monitoring is required, such designation is not needed and the report may be signed by the permittee). The Discharge Monitoring Report Form must be sent to the offices of the state water pollution control agency and the Regional Administrator at the following addresses:

Dept. of E[illegible]
Harrisburg Region
407 S. Cameron Street
Harrisburg, Pennsylvania 17101
(717) 787-9665

Pennsylvania Section 3EN22
Enforcement Division
U.S. Environmental Protection Agency
Region III
6th and Walnut Streets
Philadelphia, Pa. 19106

C. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. T-40). Such increased frequency shall also be indicated.

BOOK 83-F

PAGE(S) 930

ARE

MISSING

PART B

MANAGEMENT REQUIREMENTS

A. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 309 of the Act and the Clean Streams Law. Facility modifications, additions, and/or expansions that increase the plant capacity must be reported to the permitting authority and this permit then modified or re-issued to reflect such changes. Any anticipated change in the facility discharge, including any new significant industrial discharge or significant changes in the quantity or quality of existing industrial discharges to the treatment system that will result in new or increased discharges of pollutants must be reported to the permitting authority. Modifications to the permit may then be made to reflect any necessary changes in permit conditions, including any necessary effluent limitations for any pollutants, not identified and limited herein. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

B. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this permit.

2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

4. Information newly acquired by the Department or EPA.

5. A change in applicable water quality standards or treatment requirements.

C. Toxic Pollutants

Notwithstanding Item B above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.

RECORDERS NOTE:
THIS IS A POOR ORIGINAL.
J.W C. MORGAN, JR.
RECORDER OF DEEDS

D. Right of Entry

The permittee shall allow the head of the Department, the agency, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

1. To enter upon the permittees premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit.

2. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit.

3. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit.

4. To sample at reasonable times any discharge of pollutants.

E. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property, invasion of personal rights, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

F. Availability of Reports

Except for data determined to be confidential under 25 Pa. Code Section 92.63 and 40 CFR Part II Subpart B, all required reports shall be available for public inspection at the offices of the state water pollution control agency and the Regional Administrator. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and applicalbe State Law.

G. Facility Operation and Quality Control

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

1. At all times, all facilities shall be operated as efficiently as possible in a manner which will minimize upsets and discharges of excessive pollutants.

2. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

3. Maintenance of treatment facilities that results in degradation of effluent quality shall be scheduled during non-critical water quality periods and shall be carried out in a manner approved by the permitting authority.

H. Bypassing

The diversion or bypass of any inadequately treated discharge by the permittee is prohibited, except: (1) where unavoidable to prevent personal injury, loss of life or severe property damage; or, (2) where there are no other alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime, and (3) where the permittee promptly but in no event later than 24 hours after the permittee learns of the bypass, submits notice of the bypass or an anticipated need for bypass to the Department and the Enforcement Division Director. The permittee shall supply as a minimum the information requested in MANAGEMENT REQUIREMENT(I).

I. Noncompliance Notification

If for any reason the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit, or should any unusual or extraordinary discharge of wastes occur from the facilities herein permitted, the permittee shall immediately notify the permit issuing authority or his designee by telephone at (717) 787-9665 and provide the permit issuing authority with the following information in writing within five days of such notification.

1. A description of the noncomplying discharge, including its location, nature, cause, duration, quantity of flow, and impact upon the receiving waters.

2. Cause of noncompliance.

3. Anticipated time the condition of noncompliance is expected to continue or if such condition has been corrected, the duration of the period of noncompliance.

4. Steps taken by the permittee to reduce and eliminate the noncomplying discharge.

5. Steps to be taken by the permittee to prevent recurrence of the condition of noncompliance.

J. Adverse Impact

Permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitation specified in this permit. The permittee should also provide accelerated or additional monitoirng as necessary to determine the nature and impact of the noncomplying discharge.

K. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

L. Solids Disposal

Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into navigable waters or their tributaries.

M. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

N. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department and the EPA Regional Administrator.

O. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

P. Minimum Treatment

In no case shall the arithmetic means of the effluent values of the biochemical oxygen demand (five day) and suspended solids discharged during a period of 30 consecutive days exceed 15 percent of respective arithmetic means of the influent values for those parameters during the same time period, except as specifically authorized by the permitting authority.

Q. Flow Limitation

When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the permittee shall submit to the permitting authority an analysis of projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

R. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating sewerage discharge and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

BOOK 83F PAGE 935

PART C

OTHER REQUIREMENTS

1. Existing Department Permit(s):

Effluent limitations, monitoring requirements, and other standard and special conditions which relate to the discharge(s) of pollutants authorized by this permit and which are contained in Water Quality Management Permit(s)

No. 561511 issued on May 23, 1961 and amended August 2, 1968.

No. 6772410 issued on December 29, 1972.

are superseded by the terms and conditions of this permit, unless specifically noted otherwise herein.

2. Disinfection:

Effective disinfection - Footnote (3) found on Page 5 is required during the swimming season (May 1 through September 30). For the remaining months the fecal coliforms in the effluent shall not exceed 2,000 per 100 ml as a maximum value.

3. Pretreatment Requirement:

This permit shall be modified or alternately revoked and reissued, as appropriate, to incorporate an approved POTW pretreatment program or a compliance schedule for the development of a POTW pretreatment program as required under Section 402(b)(8) of the Clean Water Act and implementing regulations or by the requirements of the approved state pretreatment program as appropriate.

4. Consent Order and Agreement

The Consent Order and Agreement dated January 29, 1981 with the Department of Environmental Resources and the City of York and the York City Sewer Authority is hereby made a part of this permit.

PUBLIC NOTICE OF PERMIT ISSUANCE

Permit for National Pollutant Discharge Elimination System (NPDES) to Discharge to State Waters

Harrisburg Regional Office: Regional Water Quality Manager, 407 South Cameron Street, Harrisburg, PA, 17101, Telephone: (717) 787-9665.

Notice is hereby given that the Pennsylvania Department of Environmental Resources after public notice and final determination of effluent limitations, has on July 21, 1981 issued a National Pollutant Discharge Elimination System permit:

York City Sewer Authority
42 East King Street
York, PA 17401
Receiving Stream - Codorus Creek
Discharge Volume - 18 MGD for Outfall 001
and 8 MGD for Outall 002

Changes between the Draft Permit and the Final Permit are as follows:

1. Correct name of applicant to York City Sewer Authority from City of York.
2. Correct location of discharges to Manchester Township, York County.
3. Change suspended solids limitations to 30 mg/l as monthly average and 60 mg/l as instantaneous maximum and make ammonia nitrogen limitations monthly averages from daily maximums. There are no other changes to the limitations in the draft permit.

ER-BWQ-69 Rev. 1/78

Water Quality Management Part I Permit No. PA 0026263
York City Sewer Authority
42 West King Street
York, PA 17401

BOOK 83F PAGE 937

Manchester Township
York County

STATE OF PENNSYLVANIA
>ss
COUNTY OF DAUPHIN

Frederick A. Marrocco
Frederick A. Marrocco
Regional Water Quality Manager

On the 21st day of July in the year one thousand nine hundred and eighty-one before me, the Subscriber, a Notary Public, came the above named Frederick A. Marrocco, Regional Water Quality Manager

and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

NOTARY PUBLIC

NOTARY PUBLIC
My Commission Expires June 8, 1982
Harrisburg, Pa. Dauphin County

NOTARIAL SEAL
JACK A. VIETE, NOTARY PUBLIC
DAUPHIN COUNTY, PENNSYLVANIA

State of Pennsylvania,
County of York,

Recorded In Record Book 83-F Page 921
the 29th day of July A.D., 19 81

John C. Nowak
Recorder of Deeds

16563

ER-BWQ-15.2 (5/81)

BOOK 0951 PAGE 0455

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

016563

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
SEWAGE PERMIT NO. PA 0026263

RECORDED — PAID

APR 20 3 22 P 87

RECORDER OF DEEDS OFFICE
YORK COUNTY, PA.

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.,

York City Sewer Authority
42 East King Street
York, PA 17401

is hereby authorized to discharge from a facility located in

Manchester Township, York County

to the receiving waters named

Codorus Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit and the authorization to discharge shall expire at midnight March 31, 1992

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the standard or special conditions, and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with any of the terms or conditions of this permit is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application.

3. It is required by law that this permit, before becoming operative, shall be recorded in the Office of the Recorder of Deeds for the county wherein the outlet of said sewer system is located.

4. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the above expiration date (unless permission has been granted by the Department for submission at a later date), using the appropriate NPDES Permit Application Form. In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal.

6. This permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

PERMIT ISSUED

DATE March 31, 1987

BY Leon M. Oberdick

TITLE Regional Water Quality Manager

BOOK 1 PAGE 045b

1. Effluent Limitations and Monitoring Requirements for Outfall 002.

LAT: 39°59'19"
LONG: 76°43'27"

A. The permittee is authorized to discharge during the period beginning 3/31/87 and lasting through 3/31/92.
B. The average monthly flow of effluent discharged from the wastewater treatment facility shall not exceed 26.0 million gallons per day.
C. The quality of effluent shall be limited at all times as specified in Footnote (3) and as follows:

	DISCHARGE LIMITATIONS							MONITORING REQUIREMENTS		
	Mass Units (lbs/day)			Concentrations (mg/l)						
Discharge Parameter	Average Monthly	Average Weekly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type	24 hr. Report Under A.II.D.
Copper, Total *				Shall be monitored				2/month	24 hr. comp.	
Iron, Total *				"	"	"		2/month	24 hr. comp.	
Mercury, Total *				"	"	"		2/month	24 hr. comp.	
Tin, Total *				"	"	"		2/month	24 hr. comp.	
Zinc, Total *				"	"	"		2/month	24 hr. comp.	
Bis (2 ethyl, hexyl) Phthalate *				"	"	"		2/month	24 hr. comp.	
Tetrachloroethylene *				"	"	"		2/month	24 hr. comp.	
Chloroform *				"	"	"		2/month	24 hr. comp.	
Total Phenols *				"	"	"		2/month	24 hr. comp.	
Phenol, 2-nitrophenol and 2-chlorophenol				"	"	"		2/month	24 hr. comp.	

* See Other Requirements - Part C

Footnotes: 1. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at discharge from treatment facility.

BOOK 1 PAGE 0457

1. Effluent Limitations and Monitoring Requirements for Outfall 002.

LAT: 39°59'19"
LONG: 76°43'27"

A. The permittee is authorized to discharge during the period beginning 3/31/87 and lasting through 3/31/92.
B. The average monthly flow of effluent discharged from the wastewater treatment facility shall not exceed 26.0 million gallons per day.
C. The quality of effluent shall be limited at all times as specified in Footnote (3) and as follows:

	DISCHARGE LIMITATIONS							MONITORING REQUIREMENTS		
	Mass Units (lbs/day)			Concentrations (mg/l)						
Discharge Parameter	Average Monthly	Average Weekly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type	24 hr. Report Under A.II.D.
Flow (mgd)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Continuous	Measured	
5-Day CBOD (5/1 to 10/31)	2385	3578		11	16.5		22	Daily	24 hr. comp.	
5-day CBOD (11/1 to 4/30)	4770	7156		22	33		44	Daily	24 hr. comp.	
Total Suspended Solids	6505	9758		30	45		60	Daily	24 hr. comp.	
NH_3N (5/1 to 10/31)	434	650		2	3		5	Daily	24 hr. comp.	
NH_3N (11/1 to 4/30)	1301	1952		6	9		15	Daily	24 hr. comp.	
Total Phosphorus as P	434	650		2	3		4	Daily	24 hr. comp.	
Dissolved Oxygen (Minimum)				6 mg/l at all times				Daily	Grab	
Boron, Total *				Shall be monitored				2/month	24 hr. comp.	
Cadmium, Total *				- - -				2/month	24 hr. comp.	

* See Other Requirements – Part C

pH – within limits of 6.0 to 9.0 standard units at all times – by daily grab sample.

Fecal Coliform – Oct. 1 thru April 30 – 2,000/100 ml as a geometric average – daily by grab sample.
May 1 thru Sept. 30 – See Footnote (2) – daily by grab sample.

Footnotes: 1. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at discharge from treatment facility.

(Footnotes Continued)

2. Effective disinfection to control disease producing organisms during the swimming season (May 1 through September 30) shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of fecal coliform organisms as a geometric average value, nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

3. In no case shall the arithmetic means of the effluent values of the biochemical oxygen demand (five days) and suspended solids discharged during a period of 30 consecutive days exceed 15 percent of respective arithmetic means of the influent values for those parameters during the same time period, except as specifically authorized by the permitting authority.

D. Definitions

1. The term "bypass" means the discharge of partially treated or untreated sewage from any device or structure of sewerage facilities due to a power failure, equipment failure, hydraulic overload, and/or blockage in all or any part of the sewerage facilities. This is to distinguish it from an overflow which is the systematic discharge of a mixture of partially treated or untreated sewage and stormwater from any device or structure of combined sewerage facilities which is in excess of the downstream hydraulic carrying capacity of those facilities.

2. The term "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

3. The "average monthly flow" means the arithmetic mean of daily flow measurements taken during a calendar month.

4. The "average monthly" mass discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the facility was operating. Where less than daily sampling is required by this permit, the (average) monthly mass discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

5. The "average weekly" mass discharge means the total discharge by weight during a calendar week divided by the number of days in the week that the facility was operating. Where less than daily sampling is required by this permit, the (average) weekly mass discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

6. The "maximum daily" mass discharge means the total discharge by weight during any calendar day.

7. The "average monthly" effluent concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month.

8. The "average weekly" effluent concentration means the arithmetic average of all the daily determinations of concentration made during a calendar week.

9. The "maximum daily" effluent concentration means the daily determination of concentration for any calendar day.

10. The "instantaneous maximum" concentration means the concentration not to be exceeded at any time in any grab sample.

11. The "daily determination of concentration" means the concentration of a composite sample taken during a calendar day or the arithmetic average of all grab samples taken during a calendar day.

12. The term "composite sample" means a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite. The maximum time period between individual samples shall not exceed two hours.

13. The term "grab sample" means an individual sample collected in less than 15 minutes.

14. The term "measured flow" means any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

15. The term "estimate" means to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

16. The term "Industrial User" means an establishment which discharges or introduces industrial wastes into a Publicly Owned Treatment Works (POTW).

17. The term "Publicly Owned Treatment Works" or "POTW" means a facility as defined by Section 212 of the Clean Water Act which is owned by a State or Municipality, as defined by Section 502(4) of the Clean Water Act, including any sewers that convey wastewater to such a treatment works, but not including pipes, sewers or other conveyances not connected to a facility providing treatment. The term also means the municipality as defined in Section 502(4) of the Clean Water Act which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

II. MONITORING AND REPORTING

A. Representative Sampling and Test Procedures

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Unless otherwise specified in this permit, the test procedures for analysis of pollutants shall be those contained in 40 CFR Part 136, or alternate test procedures approved pursuant to that part.

B. Self-Monitoring and Reporting Requirements

The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the discharge. Monitoring data required by this permit shall be submitted monthly.

A Discharge Monitoring Report (DMR) properly completed and signed by the treatment plant operator in responsible charge, must be submitted within 28 days after the end of each monthly report period. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced. The DMR must be sent to the Department and the EPA Regional Office at the following addresses:

DEPT. OF ENVIRONMENTAL RESOURCES
HARRISBURG REGION
ONE ARARAT BOULEVARD
HARRISBURG, PENNSYLVANIA 17110

Pennsylvania Section 3EN22
Permits Enforcement Branch
Enforcement Division
U. S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

C.

If the permittee monitors any pollutant, using analytical methods described in Part A.2.A(2) above, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

D. Non-Compliance Reporting

1. 24-Hour Reporting:

The permittee shall orally report to the Department within 24 hours of becoming aware of the following:

(a) Actual or anticipated non-compliance with any term or condition of this permit which may endanger health or the environment.

(b) Actual or anticipated non-compliance with any "maximum daily" discharge limitation which is identified in Part A1 of this permit as being either:

(i) A toxic pollutant effluent standard established by EPA pursuant to Section 307(a) of the Clean Water Act, or

(ii) A toxic or hazardous pollutant which, if not adequately treated, could constitute a threat to human health, welfare, or the environment,

(iii) Any pollutant identified as the method to control a toxic pollutant or hazardous substance (i.e., indicator pollutant).

(c) Any unanticipated bypass which exceeds any effluent limitations in the permit.

(d) Where the permittee orally reports this information within the above mentioned 24 hour time period, a written submission outlining the above information must be submitted to the Department within 5 days of becoming aware of such a condition, unless this requirement is waived by the Department upon receipt of the oral report.

2. Other Non-Compliance Reporting.

(a) The permittee shall give advance notice to the Department of any planned changes to the permitted activity or facility which may result in non-compliance with permit requirements.

(b) Where the permittee knows in advance of the need for a bypass which will exceed effluent limitations it shall submit prior notice to the Department at least 10 days, if possible, before date of the bypass.

(c) The permittee shall report all instances of non-compliance which are not reported above at the time of DMR submission.

3. The reports and notifications required above shall contain the following information:

(a) A description of the discharge and cause of non-compliance;

(b) The period of non-compliance, including exact date and times and/or the anticipated time when the discharge will return to compliance; and

(c) Steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge.

E. **Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

1. The exact place, date, and time of sampling or measurement.
2. The person(s) who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The person(s) who performed the analyses.
5. The analytical techniques or methods used.
6. The results of such analyses.

F. **Records Retention**

All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The three year period shall be extended as requested by the Department or the EPA Regional Administrator.

State of Pennsylvania,
County of York,
Recorded in Record Book 951 Page 455
the 20th day of April A.D. 1987

Recorder of Deeds

RECORDER'S OFFICE YORK COUNTY

III. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with final effluent limitations or terminate this discharge in accordance with the following schedule: N/A

A. Feasibility study completion _____

B. Final plan completion _____

C. Start construction _____

D. Construction progress report(s) _____

E. End construction _____

F. Compliance with effluent limitations _____

G. Terminate discharge _____

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the Department a written notice of compliance or non-compliance with the specific schedule requirement(s). Each notice of non-compliance shall include the following information:

A. A short description of the noncompliance.

B. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement.

C. A description of any factors which tend to explain or mitigate the noncompliance.

D. An estimate of the date that compliance with the elapsed schedule requirement will be achieved and an assessment of the probability that the next scheduled requirement will be met on time.

BOOK 0951 PAGE 0464

PART B Page 9 of 14

I. MANAGEMENT REQUIREMENTS

A. Publicly Owned Treatment Works (POTW)

1. Where the permittee is a Publicly Owned Treatment Works (POTW), the permittee shall provide adequate notice as discussed in A(2) below to the Department of the following:

   (a) Any new introduction of pollutants into the POTW from an Industrial User which would be subject to Sections 301 and 306 of the Clean Water Act if it were otherwise discharging directly into waters of the United States.

   (b) Any substantial change in the volume or character of pollutants being introduced into the POTW by an Industrial User which was discharging into the POTW at the time of issuance of this permit.

   (c) Any change in the quality and quantity of effluent introduced into the POTW.

   (d) The identity of significant Industrial Users served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also identify the character and volume of pollutants discharged into the POTW by the Industrial User.

2. The submission of the above information in the POTW's annual Wasteload Management Report, required under the provisions of 25 Pa. Code Chapter 94, will normally be considered as providing adequate notice to the Department. However, if the above changes in industrial pollutant loadings to the POTW are significant enough to warrant either modification or revocation and reissuance of this permit, then the permittee is required to meet the provisions of Management Requirements B below.

3. The POTW shall require all Industrial Users to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act and any regulations adopted thereunder, and the Clean Streams Law and any regulations adopted thereunder.

4. This permit shall be modified, or alternatively, revoked and reissued, to incorporate an approved POTW pretreatment program or a compliance schedule for the development of such program as required under Section 402(b)(8) of the Clean Water Act and regulations adopted thereunder or under the Department's approved pretreatment program.

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term for any of the causes specified in 25 Pennsylvania Code, Chapter 92.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or a notification of planned changes or anticipated non-compliance does not stay any permit condition.

3. Notwithstanding the above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be modified or revoked and reissued in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.

   In the absence of a Departmental action to modify or to revoke and reissue this permit, any toxic effluent standard or prohibition established under Section 307(a) of the Act is considered to be effective and enforceable against the permittee.

C. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania Clean Streams Law and 25 Pennsylvania Code, Chapter 92, the permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

1. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit.

2. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit and other documents as may be required by law.

3. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit.

4. To inspect any collection, treatment, pollution management, or discharge facilities required under the permit.

5. To sample any substances or parameters at any location.

D. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights.

E. Duty to Provide Information

1. The permittee shall furnish to the Department within a reasonable time, any information which the Department may request to determine whether cause exists for modifying revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

2. The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit.

3. Planned changes: The permittee shall give advance notice to the Department of any physical alterations or additions to the permitted facility.

4. Other Information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Department.

F. Confidentiality

Except for data determined to be confidential under 25 Pennsylvania Code, Chapter 92, all required reports shall be available for public inspection at the offices of the Department and the EPA Regional Administrator. Effluent data shall not be considered confidential.

G. Facility Operation and Quality Control

The permittee shall at all times maintain in good working order and properly operate all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of the permit. Proper operation and maintenance includes but is not limited to effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and processing controls including appropriate quality assurance procedures. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with this permit.

H. Bypassing

1. Bypassing Not Exceeding Permit Limitations: The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation. This type of bypassing is not subject to the reporting and notification requirements of Part A.2.D above.

2. In all other situations, bypassing is prohibited unless the following conditions are met:

   (a) A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage";

   (b) There are no feasible alternatives to a bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time; (This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.); and

   (c) The permittee submitted the necessary reports required under Part A.2.D. above.

3. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions listed under Part B.I.2. above.

I. Adverse Impact

Permittee shall take all reasonable steps to minimize any adverse impact on the environment resulting from noncompliance with this permit.

J. Solids Disposal

Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those waters (or runoff from the wastes) into waters of the Commonwealth.

K. Penalties and Liability

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

2. Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the Clean Water Act or Sections 602 or 605 of the Clean Streams Law.

L. Transfer of Ownership or Control

1. No permit may be transferred unless approved by the Department.

2. In the event of any pending change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Department by letter of such pending change at least thirty days prior to the change in ownership or control.

3. The letter shall be accompanied by the appropriate Department forms for transfer of the permit and a written agreement between the existing permittee and the new owner or controller stating that the existing date of permit transfer and that the new owner or controller shall be liable for permit violations from that date on.

4. After receipt of the documentation above, the Department shall notify the existing permittee and the new owner or controller of its decision concerning approval of the transfer. In approving a transfer the Department may modify or revoke and reissue the permit.

5. In the event the Department does not approve transfer of the permit, the new owner or controller must submit a new permit application.

M. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

N. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating sewerage discharge and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by federal or state law or regulation, or by local ordinance. Nor does it pre-empt any duty to obtain State or local assent required by law for the discharge(s).

BOOK 0951 PAGE 0469

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory or the sewerage facilities shall have created public nuisance, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water.

D. Existing Department Permits:

Effluent limitations, monitoring requirements, and other standard and special conditions which relate to the discharge(s) of pollutants authorized by this permit and which are contained in Water Quality Management Permit(s)

No. 561811 issued May 23, 1961 and amended August 2, 1968

No. 6772410 issued December 29, 1972

No. 6785418 issued August 26, 1986

are superseded by the terms and conditions of this permit, unless specifically noted otherwise herein.

PART C

OTHER REQUIREMENTS

E. Water Quality-Based Effluent Limitations and Other Requirements for Management of Toxic Pollutants

a. Water Quality-Based Effluent Limitations

In addition to the effluent limitations shown in Part A of this permit, the Permittee is expected to achieve the water quality-based effluent limitations shown below.

No final date for compliance with these limitations is shown. The Department will modify this permit to establish a final compliance date, if necessary, upon the submittal by the Permittee and review by the Department of an acceptable Toxics Reduction Evaluation (TRE), or the failure of the Permittee to submit an acceptable TRE under the schedule established under Sub-section b. below. The Permittee must submit the following requests, along with supporting documentation, to the Department at the time of submission of the TRE.

1. A request for modification of water quality-based effluent limitations shown below; and or,

2. A request for modification of time to achieve the water quality-based effluent limitations shown below; and/or,

3. A request for alternative bioassay-based effluent limitations.

For purposes of compliance, effluent limitations listed in Part A of this permit apply unless changed by order, permit modification, or other Department action.

Submittal by the Permittee of a TRE shall not be deemed to affect the appeal rights of the Permittee of final water quality-based effluent limitations upon action of the Department to make the limitations effective.

Outfall 002

Parameter (mg/l)	Average Monthly	Instantaneous Maximum
Boron (total)	0.9	1.8
Cadmium (total)	0.002	0.004
Copper (total)	0.1	0.2
Iron (total)	1.8	3.6
Mercury (total)	Not detectable using EPA Method 245 or an approved method of equal sensitivity	
Tin (total)	0.004	0.008
Zinc (total)	0.095	0.19
Bis (2 ethyl hexyl) Phthalate	0.005	0.01
Tetrachloroethylene	0.01	0.02
Chloroform	0.003	0.006
Total Phenols	0.15	0.3
Phenol, 2-nitrophenol and 2-chlorophenol	0.009	0.018

PART C

OTHER REQUIREMENTS

b. Toxics Reduction Evaluation (TRE)

In order to (1) verify the actual extent of the toxic pollutants associated with the wastewater, (2) determine sources of these toxic pollutants, and (3) recommend control and/or treatment technologies to reduce or eliminate these toxic pollutants, the Permittee is directed to carry out a TRE in accordance with guidelines developed by the Department.

The Permittee shall submit three (3) copies of the completed TRE to the Department for review in accordance with the following schedule:

Step	Completion Date
Start Study	April 1, 1987
Complete Study	May 1, 1988

c. Modification of Permit to Incorporate Water Quality-Based Effluent Limitations for Toxic Pollutants

Upon approval of the TRE and any additional submittals for the above toxic pollutants of concern, the Department will modify Part A of this permit to reflect the effluent limitations, monitoring requirements, and other conditions necessary for compliance with water quality standards.

A permit modification may include a schedule of compliance. Any such permit modification will be conducted in accordance with applicable permit modification procedures, which include development of draft and final permits and associated public notification requirements.

d. Procedures for Grants Extensions of Time to Achieve Water Quality-Based Effluent Limitations

At the request of the Permittee in conjunction with modifying the permit to incorporate water quality-based effluent limitations under Subsection c. above, the Department may grant an extension of time to achieve the water quality-based effluent limitations shown in Subsection a. above, provided the Permittee meets all of the eligibility requirements contained in Section 95.4 of the Department's Rules and Regulations.

Requests for Section 95.4 time extensions, including all documentation required to support such a request, must be submitted to the Department along with the Permittee's TRE as required under Subsection b. above.

Part C

OTHER REQUIREMENTS

e. Procedures for Demonstration of Alternative Site-Specific Bioassay-Based Effluent Limitations

Where the water quality-based effluent limitations listed in Sub-section a. above have been developed by the Department for protection of fish and aquatic life, the Permittee may request an opportunity to demonstrate alternative, site-specific, bioassay-based "safe concentration values" for the pollutants in question.

The final water quality-based effluent limitations in Sub-section a. are based on protection of fish and aquatic life for the following pollutants: Boron, total; Cadmium, total; Copper, total; Mercury, total; Tin, total; Zinc, total; Bis (2 ethyl hexyl) Phthalate; and Total Phenols.

The procedures for carrying out such demonstrations shall be approved in writing by the Department, and shall be conducted in accordance with the requirements of Sections 93.8(d)(e) of the Department's Rules and Regulations.

Requests for alternative, site-specific, bioassay-based effluent limitations, including all documentation required to support such a request, must be submitted to the Department along with the Permittee's TRE as required under Sub-section b. above.

Where the demonstration results in more stringent limitations than those established by the Department in Sub-section a. above, the more stringent limitations will apply. Any less stringent limitations which are approved by the Department shall not violate applicable criteria for the protection of human health. This procedure does not apply to those parameters for which specific numeric criteria are listed in Section 93.7, Table 3 of the Department's Rules and Regulations.

f. Procedures for Demonstrating Alternative Method Detection Limits

Where necessary, the Permittee may request an opportunity to demonstrate alternative facility specific MDL's to account for interfering factors associated with the wastewater in question.

The procedures for determining MDL's, published as Appendix B in 49 FR 43430, October 26, 1984, must be followed and complete documentation provided.

Requests for alternative, facility-specific, MDL's including all documentation required to support such a request, must be submitted to the Department. The Department, upon evaluation of the documentation submitted, may grant a facility-specific MDL to define not detectable for permitting limit and compliance monitoring purposes.

NPDES Permit Conditions
Pretreatment Reporting Requirements

A. The permittee shall operate an Industrial Pretreatment Program in accordance with Section 402(b)(8) of the Clean Water Act and the General Pretreatment Regulations (40 CFR Part 403). The program shall also be implemented in accordance with the approved POTW pretreatment program submitted by the permittee.

B. The permittee shall submit to EPA and DER an annual report that describes the permittee's program activities over the previous 12 months. The permittee must also report on the pretreatment program activities of all participating agencies, if more than one jurisdiction is involved in the local program.

C. The report shall be incorporated into and submitted with the permittee's Annual Municipal Wasteload Management Report required by DER's Chapter 94 Rules and Regulations. The report shall include the following:

1. Compliance with Categorical and Local Standards - A summary of the compliance status for those industries affected by final Categorical Pretreatment Standards.

2. Review of Industrial Compliance - Information on the number and type of major violations of pretreatment regulations, and the actions taken or planned by the POTW to obtain compliance.

3. Summary of Industrial User Inspections - A summary of the number and type of industrial user inspections by the POTW.

4. Summary of POTW Operations - Any interference, upset, or permit violations experienced at the POTW directly attributable to industrial users, and actions taken to alleviate said events. Sampling and analysis of POTW influent, effluent, and sludge for toxic and incompatible pollutants shall also be included.

5. Pretreatment Program Changes - A description of any significant changes in operating the program from the original submission, including staffing and funding. An updated industrial survey shall be included, as appropriate.

6. Other Miscellaneous Pretreatment Developments - POTW facility changes, problems or improvements regarding sludge, water quality, data management, or any special concerns.

D. EPA and DER retain the right to require the POTW to institute changes to its local pretreatment program:

1. If the program is not implemented in a way satisfying the requirements of 40 CFR 403;

2. If problems such as interference, pass through, or sludge contamination develop or continue.

3. If other Federal, State or local requirements (i.e., water quality standards) change.

DMR SUPPLEMENTAL FORM

DOOX PAGE
0951 0474

York City Sewer Authority
42 East King Street
York, PA 17405

Manchester Township
York County

Outfall 002 PA 0026263

Reporting Period _____

Date	Total Flow (MGD)	Influent		Effluent									Rainfall (inches)
		BOD_5 (mg/l)	S.S. (mg/l)	BOD_5 (mg/l)	BOD_5 (lb/day)	Suspended Solids (mg/l)	Suspended Solids (lb/day)	Fecals per 100 ml	P (mg/l)	NH_3-N (mg/l)	Cl_2 Resid. (mg/l)	pH	
1													
2													
3													
4													
5													
6													
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PROBLEMS OR COMMENTS — ATTACH SEPARATE SHEET

LB/DAY = MG/L X MGD X 8.33

Signature _____

BOOK PAGE

PUBLIC NOTICE OF PERMIT ISSUANCE 0951 0475

Permit for National Pollutant Discharge Elimination System (NPDES) to Discharge to State Waters

Harrisburg Regional Office: Regional Water Quality Manager, One Ararat Boulevard, Harrisburg, PA, 17110, Telephone: (717) 657-4585.

Notice is hereby given that the Pennsylvania Department of Environmental Resources, after public notice and final determination of effluent limitations, has on MAR 3 1 1987 issued a National Pollutant Discharge Elimination System Permit to:

Permit No. PA 0026263

Permittee: York City Sewer Authority
42 East King Street
York, PA 17405

Receiving Stream: Codorus Creek

Interim effluent limits and a schedule to bring the treatment facility into compliance with the final limits are currently being negotiated.

Final effluent limits at a design flow of 26 MGD are as follows:

Parameters	Average Monthly (mg/l)	Instantaneous Maximum (mg/l)
5-day CBOD		
(5-1 to 10-31)	11	22
(11-1 to 4-30)	22	44
Suspended Solids	30	60
NH_3-N		
(5-1 to 10-31)	2.0	5.0
(11-1 to 4-30)	6.0	15
Total Phosphorus as (P)	2.0	4.0
Dissolved Oxygen	Minimum of 6.0 at all times	
pH	6.0 to 9.0	
Fecal Coliforms		
(5-1 to 9-30)	200/100 ml as a geometric average	
(10-1 to 4-30)	2,000/100 ml as a geometric average	

York City Sewer Authority PA 0026263

Parameter	Average Monthly (mg/l)	Instantaneous Maximum (mg/l)
Boron (total)	Shall be monitored	
Cadmium (total)	" "	"
Copper (total)	" "	"
Iron (total)	" "	"
Mercury (total)	" "	"
Tin (total)	" "	"
Zinc (total)	" "	"
Bis (2 ethyl hexyl) Phthalate	" "	"
Tetrachloroethylene	" "	"
Chloroform	" "	"
Total Phenols	" "	"
Phenol, 2-nitrophenol and 2-chlorophenol	" "	"

Reason for changes:

1. A change in Department policy and a reevaluation of York City's discharge to Codorus Creek with an increased minimum dissolved oxygen limit of 6 mg/l resulted in the change from a 5-day BOD limit to a slightly higher CBOD limit.

2. The project to upgrade the 26 mgd York City sewage treatment plant makes provision for only one outfall as opposed to the current two outfalls, 001 and 002, of 18 mgd and 8 mgd, respectively. Therefore, the final limits are established for one discharge point — 002.

3. Chlorine residual was excluded from the final permit limits since the upgrade project will change the method of disinfection from chlorine to ultraviolet radiation.

4. The toxics in this permit were reevaluated based on a revision to the Toxics Strategy. As a result, nickel was eliminated from the permit and the TRE limit for mercury was changed from a numerical value to "not detectable using EPA Method 245 or an approval method of equal sensitivity."

BOOK PAGE
0951 0477

Procedures for the Formulation of Final Determinations

On the basis of preliminary review and application of lawful standards and regulations, the Pennsylvania Department of Environmental Resources proposes to issue a permit to discharge, subject to certain effluent limitations and special conditions. These proposed determinations are tentative.

Where indicated, the EPA, Region III, Regional Administrator has waived his right to review or object to this proposed permit action pursuant to the waiver provision 40 C.F.R. §124.46.

Persons wishing to comment on the proposed permit are invited to submit a statement to the Regional Office indicated above as the office responsible, within 30 days from the date of this public notice. All comments received within this 30-day period will be considered in the formulation of final determinations regarding this application. All responses should include the name, address, and telephone number of the writer and a concise statement to inform the Regional Office of the exact basis of any comment and the relevant facts upon which it is based. A public hearing may be held if the Regional Office considers the public response significant.

Following the 30-day comment period the Regional Water Quality Manager will make a final determination regarding the proposed permit. Notice of this determination will be published in the Pennsylvania Bulletin at which time this determination may be appealed to the Environmental Hearing Board.

The application, and related documents, proposed effluent limitations and special conditions, comments received, and other information are on file and may be inspected and arrangements made for copying, at the Regional Office that has been indicated above.

BOOK PAGE
0951 0478

PUBLIC NOTICE OF PERMIT ISSUANCE

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Final effluent limits at a design flow of 26 MGD are as follows:

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Suspended Solids	30	60
NH_3-N		
(5-1 to 10-31)	2.0	5.0
(11-1 to 4-30)	6.0	15
Total Phosphorus as (P)	2.0	4.0
Dissolved Oxygen	Minimum of 6.0 at all times	
pH	6.0 to 9.0	
Fecal Coliforms		
(5-1 to 9-30)	200/100 ml as a geometric average	
(10-1 to 4-30)	2,000/100 ml as a geometric average	

York City Sewer Authority PA 0026263

Parameter	Average Monthly (mg/l)	Instantaneous Maximum (mg/l)
Boron (total)	Shall be monitored	
Cadmium (total)	" "	"
Copper (total)	" "	"
Iron (total)	" "	"
Mercury (total)	" "	"
Tin (total)	" "	"
Zinc (total)	" "	"
Bis (2 ethyl hexyl) Phthalate	" "	"
Tetrachloroethylene	" "	"
Chloroform	" "	"
Total Phenols	" "	"
Phenol, 2-nitrophenol and 2-chlorophenol	" "	"

Reason for changes:

1. A change in Department policy and a reevaluation of York City's discharge to Codorus Creek with an increased minimum dissolved oxygen limit of 6 mg/l resulted in the change from a 5-day BOD limit to a slightly higher CBOD limit.

2. The project to upgrade the 26 mgd York City sewage treatment plant makes provision for only one outfall as opposed to the current two outfalls, 001 and 002, of 18 mgd and 8 mgd, respectively. Therefore, the final limits are established for one discharge point — 002.

3. Chlorine residual was excluded from the final permit limits since the upgrade project will change the method of disinfection from chlorine to ultraviolet radiation.

4. The toxics in this permit were reevaluated based on a revision to the Toxics Strategy. As a result, nickel was eliminated from the permit and the TRE limit for mercury was changed from a numerical value to "not detectable using EPA Method 245 or an approval method of equal sensitivity."

BOOK 0951 PAGE 0480

Procedures for the Formulation of Final Determinations

On the basis of preliminary review and application of lawful standards and regulations, the Pennsylvania Department of Environmental Resources proposes to issue a permit to discharge, subject to certain effluent limitations and special conditions. These proposed determinations are tentative.

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Persons wishing to comment on the proposed permit are invited to submit a statement to the Regional Office indicated above as the office responsible, within 30 days from the date of this public notice. All comments received within this 30-day period will be considered in the formulation of final determinations regarding this application. All responses should include the name, address, and telephone number of the writer and a concise statement to inform the Regional Office of the exact basis of any comment and the relevant facts upon which it is based. A public hearing may be held if the Regional Office considers the public response significant.

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Water Quality Management Part I Permit No. 67 0026263
York City Sewer Authority
42 East King Street
York, PA 17405

BOOK 0951 PAGE 0481

ER-BWQ-88: Rev. 4/73

STATE OF PENNSYLVANIA

COUNTY OF DAUPHIN

} SS

Manchester Township
York County

Leon M. Oberdick
Regional Water Quality Manager

On the 31st day of March in the year one thousand nine hundred and eighty-seven before me, the Subscriber, a Notary Public, came the above named

Leon M. Oberdick, Regional Water Quality Manager

and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

Gloria J. Unger
NOTARY PUBLIC

GLORIA J. UNGER, Notary Public
East Manover Twp., Dauphin Co., Pa.
My Commission Expires August 21, 1989

Mail to: York City Sewer Authority
c/o D. Bupp
42 E King St
York PA 17401

3155 Sewer Permit

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

0201 1094

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
SEWAGE PERMIT NO. PA 0026263

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.,

York City Sewer Authority
17 East Market Street
York, PA 17404

is hereby authorized to discharge from a facility located in

Manchester Township
York County

to the receiving waters named

Codorus Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit and the authorization to discharge shall expire at midnight July 5, 1996.

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the standard or special conditions, and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with any of the terms or conditions of this permit is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application.

3. It is required by law that this permit, before becoming operative, shall be recorded in the Office of the Recorder of Deeds for the county wherein the outlet of said sewer system is located.

4. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the above expiration date (unless permission has been granted by the Department Form. In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal.

5. This permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

PERMIT ISSUED

DATE JUL 05 1991

BY

TITLE Regional Water Quality Manager

LAT: 39°59'19"
LONG: 76°43'27"

1. FINAL Effluent Limitations and Monitoring Requirements for Outfall 002

A. The permittee is authorized to discharge during the period beginning JUL 05 1991 and lasting through July 5, 1996.

B. The average monthly flow of effluent discharged from the wastewater treatment facility shall not exceed 26 million gallons per day.

C. The quality of effluent shall be limited at all times as specified in Footnote (3) and as follows:

Discharge Parameter	DISCHARGE LIMITATIONS							MONITORING REQUIREMENTS		
	Mass Units (lbs/day)			Concentrations (mg/l)						
	Average Monthly	Average Weekly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type	24 Hr. Report Under A.II.D.
FLOW (MGD)								continuous	measured	
5-DAY CBOD (5/1 - 10/31)	3252	4879		15	22.5		30	daily	24-hr comp.	
5-DAY CBOD (11/1 - 4/30)	5421	8673		25	40		50	daily	24-hr comp.	
TOTAL SUSPENDED SOLIDS	6505	9758		30	45		60	daily	24-hr comp.	
DISSOLVED OXYGEN (MINIMUM)				5.0 mg/l at all times				daily	Grab	
PHOSPHORUS AS P	434	650		2.0	3.0		4.0	daily	24-hr comp.	
NH_3-N (5/1 - 10/31)	369	564		1.7	2.6		3.5	daily	24-hr comp.	
NH_3-N (11/1 - 4/30)	1127	1713		5.2	7.9		10.5	daily	24-hr comp.	

pH - within limits of 6.0 to 9.0 Standard Units at all times by daily grab sample.

Fecal Coliform - Oct. 1 thru April 30 - 2,000/100 ml as a geometric average - daily by grab
May 1 thru Sept. 30 - See Footnote (2) - daily by grab

Footnotes: 1. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s) : At discharge from treatment facility.

0201 1096

Sewerage Permit No. PA 0026263

Treatment Facilities By-passes

Point Source 001 (listed below) at the treatment facility serves as an emergency Train 2 discharge point necessitated by a power failure, equipment failure, periodic stormwater pump test, and mechanical repair and/or hydraulic overload in all or any part of the treatment facilities and is permitted to discharge only for such reasons. There are at this time no specific effluent limitations on this discharge. Each discharge event shall be monitored for cause, frequency, duration, and quantity of flow. This data shall be reported quarterly as an attachment to the Discharge Monitoring Report Form. The permit issuing authority may require a plan of action to eliminate the discharge at some future date.

In addition, Point Source 001 serves as a discharge point for periodic stormwater pump tests using Train 2 effluent. The effluent limitations specified for outfall 002 shall apply for these events.

Point Source	Coordinates	Description
001	Lat-39°59'19" Long-76°43'27"	Unfiltered effluent from treatment train 2 during bypasses or treated effluent during stormwater pump tests

(Footnotes Continued)

2. Effective disinfection to control disease producing organisms during the swimming season (May 1 through September 30) shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of fecal coliform organisms as a geometric average value, nor greater than 1,000/100 ml of these organisms in more than 10% of the samples tested.

3. In no case shall the arithmetic means of the effluent values of the biochemical oxygen demand (five days) and suspended solids discharged during a period of 30 consecutive days exceed 15 percent of respective arithmetic means of the influent values for those parameters during the same time period, except as specifically authorized by the permitting authority.

D. Definitions

1. The term "bypass" means the discharge of partially treated or untreated sewage from any device or structure of sewerage facilities due to a power failure, equipment failure, hydraulic overload, and/or blockage in all or any part of the sewerage facilities. This is to distinguish it from an overflow which is the systematic discharge of a mixture of partially treated or untreated sewage and stormwater from any device or structure of combined sewerage facilities which is in excess of the downstream hydraulic carrying capacity of those facilities.

2. The term "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

3. The "average monthly flow" means the arithmetic mean of daily flow measurements taken during a calendar month.

4. The "average monthly" mass discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the facility was operating. Where less than daily sampling is required by this permit, the (average) monthly mass discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

5. The "average weekly" mass discharge means the total discharge by weight during a calendar week divided by the number of days in the week that the facility was operating. Where less than daily sampling is required by this permit, the (average) weekly mass discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

6. The "maximum daily" mass discharge means the total discharge by weight during any calendar day.

7. The "average monthly" effluent concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month.

8. The "average weekly" effluent concentration means the arithmetic average of all the daily determinations of concentration made during a calendar week.

9. The "maximum daily" effluent concentration means the daily determination of concentration for any calendar day.

10. The "instantaneous maximum" concentration means the concentration not to be exceeded at any time in any grab sample.

11. The "daily determination of concentration" means the concentration of a composite sample taken during a calendar day or the arithmetic average of all grab samples taken during a calendar day.

12. The term "composite sample" means a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite. The maximum time period between individual samples shall not exceed two hours.

13. The term "grab sample" means an individual sample collected in less than 15 minutes.

14. The term "measured flow" means any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

15. The term "estimate" means to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

16. The term "Industrial User" means an establishment which discharges or introduces industrial wastes into a Publicly Owned Treatment Works (POTW).

17. The term "Publicly Owned Treatment Works" or "POTW" means a facility as defined by Section 212 of the Clean Water Act which is owned by a State or Municipality, as defined by Section 502(4) of the Clean Water Act, including any sewers that convey wastewater to such a treatment works, but not including pipes, sewers or other conveyances not connected to a facility providing treatment. The term also means the municipality as defined in Section 502(4) of the Clean Water Act which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

II. MONITORING AND REPORTING

A. Representative Sampling and Test Procedures

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Unless otherwise specified in this permit, the test procedures for analysis of pollutants shall be those contained in 40 CFR Part 136, or alternate test procedures approved pursuant to that part.

B. Self-Monitoring and Reporting Requirements

The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the discharge. Monitoring data required by this permit shall be submitted monthly.

A Discharge Monitoring Report (DMR) properly completed and signed by the treatment plant operator in responsible charge, must be submitted within 28 days after the end of each monthly report period. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced. The DMR must be sent to the Department and the EPA Regional Office at the following addresses:

DEPT. OF ENVIRONMENTAL RESOURCES
HARRISBURG REGION
ONE AARAT BOULEVARD
HARRISBURG, PENNSYLVANIA 17110

Program Management Section (3WM52)
Permits Enforcement Branch
Water Management Division
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

C. If the permittee monitors any pollutant, using analytical methods described in Part A.2.A(2) above, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

D. Non-Compliance Reporting

1. 24-Hour Reporting:

The permittee shall orally report to the Department within 24 hours of becoming aware of the following:

(a) Actual or anticipated non-compliance with any term or condition of this permit which may endanger health or the environment.

(b) Actual or anticipated non-compliance with any "maximum daily" discharge limitation which is identified in Part A1 of this permit as being either:

(i) A toxic pollutant effluent standard established by EPA pursuant to Section 307(a) of the Clean Water Act, or

(ii) A toxic or hazardous pollutant which, if not adequately treated, could constitute a threat to human health, welfare, or the environment,

(iii) Any pollutant identified as the method to control a toxic pollutant or hazardous substance (i.e., indicator pollutant).

(c) Any unanticipated bypass which exceeds any effluent limitations in the permit.

(d) Where the permittee orally reports this information within the above mentioned 24 hour time period, a written submission outlining the above information must be submitted to the Department within 5 days of becoming aware of such a condition, unless this requirement is waived by the Department upon receipt of the oral report.

2. Other Non-Compliance Reporting.

(a) The permittee shall give advance notice to the Department of any planned changes to the permitted activity or facility which may result in non-compliance with permit requirements.

(b) Where the permittee knows in advance of the need for a bypass which will exceed effluent limitations it shall submit prior notice to the Department at least 10 days, if possible, before date of the bypass.

(c) The permittee shall report all instances of non-compliance which are not reported above at the time of DMR submission.

3. The reports and notifications required above shall contain the following information:

(a) A description of the discharge and cause of non-compliance;

(b) The period of non-compliance, including exact date and times and/or the anticipated time when the discharge will return to compliance; and

(c) Steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge.

E. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

1. The exact place, date, and time of sampling or measurement.
2. The person(s) who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The person(s) who performed the analyses.
5. The analytical techniques or methods used.
6. The results of such analyses.

F. Records Retention

All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The three year period shall be extended as requested by the Department or the EPA Regional Administrator.

III. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with final effluent limitations or terminate this discharge in accordance with the following schedule:

A. Feasibility study completion _____

B. Final plan completion _____

C. Start construction _____

D. Construction progress report(s) _____

E. End construction _____

F. Compliance with effluent limitations _____

G. Terminate discharge _____

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the Department a written notice of compliance or non-compliance with the specific schedule requirement(s). Each notice of non-compliance shall include the following information:

A. A short description of the noncompliance.

B. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement.

C. A description of any factors which tend to explain or mitigate the noncompliance.

D. An estimate of the date that compliance with the elapsed schedule requirement will be achieved and an assessment of the probability that the next scheduled requirement will be met on time.

I. MANAGEMENT REQUIREMENTS

A. Publicly Owned Treatment Works (POTW)

1. Where the permittee is a Publicly Owned Treatment Works (POTW), the permittee shall provide adequate notice as discussed in A(2) below to the Department of the following:

   (a) Any new introduction of pollutants into the POTW from an Industrial User which would be subject to Sections 301 and 306 of the Clean Water Act if it were otherwise discharging directly into waters of the United States.

   (b) Any substantial change in the volume or character of pollutants being introduced into the POTW by an Industrial User which was discharging into the POTW at the time of issuance of this permit.

   (c) Any change in the quality and quantity of effluent introduced into the POTW.

   (d) The identity of significant Industrial Users served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also identify the character and volume of pollutants discharged into the POTW by the Industrial User.

2. The submission of the above information in the POTW's annual Wasteload Management Report, required under the provisions of 25 Pa. Code Chapter 94, will normally be considered as providing adequate notice to the Department. However, if the above changes in industrial pollutant loadings to the POTW are significant enough to warrant either modification or revocation and reissuance of this permit, then the permittee is required to meet the provisions of Management Requirements B below.

3. The POTW shall require all Industrial Users to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act and any regulations adopted thereunder, and the Clean Streams Law and any regulations adopted thereunder.

4. This permit shall be modified, or alternatively, revoked and reissued, to incorporate an approved POTW pretreatment program or a compliance schedule for the development of such program as required under Section 402(b)(8) of the Clean Water Act and regulations adopted thereunder or under the Department's approved pretreatment program.

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term for any of the causes specified in 25 Pennsylvania Code, Chapter 92.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or a notification of planned changes or anticipated non-compliance does not stay any permit condition.

3. Notwithstanding the above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be modified or revoked and reissued in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.

   In the absence of a Departmental action to modify or to revoke and reissue this permit, any toxic effluent standard or prohibition established under Section 307(a) of the Act is considered to be effective and enforceable against the permittee.

C. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania Clean Streams Law and 25 Pennsylvania Code, Chapter 92, the permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

1. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit.

2. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit and other documents as may be required by law.

3. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit.

4. To inspect any collection, treatment, pollution management, or discharge facilities required under the permit.

5. To sample any substances or parameters at any location.

D. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights.

E. Duty to Provide Information

1. The permittee shall furnish to the Department within a reasonable time, any information which the Department may request to determine whether cause exists for modifying revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

2. The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit.

3. Planned changes: The permittee shall give advance notice to the Department of any physical alterations or additions to the permitted facility.

4. Other Information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Department.

F. Confidentiality

Except for data determined to be confidential under 25 Pennsylvania Code, Chapter 92, all required reports shall be available for public inspection at the offices of the Department and the EPA Regional Administrator. Effluent data shall not be considered confidential.

G. Facility Operation and Quality Control

The permittee shall at all times maintain in good working order and properly operate all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of the permit. Proper operation and maintenance includes but is not limited to effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and processing controls including appropriate quality assurance procedures. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with this permit.

H. Bypassing

1. Bypassing Not Exceeding Permit Limitations: The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation. This type of bypassing is not subject to the reporting and notification requirements of Part A.2.D above.

2. In all other situations, bypassing is prohibited unless the following conditions are met:

   (a) A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage";

   (b) There are no feasible alternatives to a bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time; (This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.); and

   (c) The permittee submitted the necessary reports required under Part A.2.D. above.

3. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions listed under Part B.I.2. above.

I. Adverse Impact

Permittee shall take all reasonable steps to minimize any adverse impact on the environment resulting from noncompliance with this permit.

J. Solids Disposal

Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those waters (or runoff from the wastes) into waters of the Commonwealth.

K. Penalties and Liability

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

2. Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the Clean Water Act or Sections 602 or 605 of the Clean Streams Law.

L. Transfer of Ownership or Control

1. No permit may be transferred unless approved by the Department.

2. In the event of any pending change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Department by letter of such pending change at least thirty days prior to the change in ownership or control.

3. The letter shall be accompanied by the appropriate Department forms for transfer of the permit and a written agreement between the existing permittee and the new owner or controller stating that the existing date of permit transfer and that the new owner or controller shall be liable for permit violations from that date on.

4. After receipt of the documentation above, the Department shall notify the existing permittee and the new owner or controller of its decision concerning approval of the transfer. In approving a transfer the Department may modify or revoke and reissue the permit.

5. In the event the Department does not approve transfer of the permit, the new owner or controller must submit a new permit application.

M. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

N. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating sewerage discharge and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by federal or state law or regulation, or by local ordinance. Nor does it pre-empt any duty to obtain State or local assent required by law for the discharge(s).

0201 1108

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory or the sewerage facilities shall have created public nuisance, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water.

D. Analysis for carbonaceous biochemical oxygen demand (CBOD) shall be done in accordance with those methods listed in 40 CFR Part 136 and amendments thereto, or by any other method approved by EPA.

E. Effluent Chlorine Optimization and Minimization:

The permittee will ensure that applied chlorine dosages, used for disinfection or other purposes, are optimized to the degree necessary such that the total residual chlorine (TRC) in the the discharged effluent does not cause an adverse instream impact. In doing so, shall consider relevant factors affecting required chlorine dosage, such as wastewater characteristics, mixing and contact times, desired result of chlorination, and expected impact on the receiving water body. The TRC data shall be recorded daily, maintained at the facility, documented in the monthly DMR supplemental form, and summarized annually as part of the facility's Chapter 94 - Municipal Wasteload Management Report.

If the Department determines or receives documented evidence that levels of TRC in the permittee's effluent are causing adverse water quality impacts in the receiving water, the permittee shall be required to institute necessary additional steps to reduce or eliminate such impact.

PART C

F. Collected screening , slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (relating to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, and the Federal Clean Water Act and its amendments.

The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.

G. Existing Department Permits(s):

Effluent limitations, monitoring requirements, and other standard and special conditions which relate to the discharge(s) of pollutants authorized by this permit and which are contained in Water Quality Management Permit(s)

No. 561511 issued May 23, 1961 and amended August 2, 1968

No. 6772410 issued December 29, 1972

No. 6785418 issued August 26, 1986

are superseded by the terms and conditions of this permit, unless specifically noted otherwise herein.

H. NPDES PERMIT CONDITION FOR PRETREATMENT

1) The permittee shall operate an industrial pretreatment program in accordance with the Clean Water Act and the General Pretreatment Regulations (40 CFR 403). The program shall also be implemented in accordance with the approved and/or modified POTW pretreatment program submitted by the permittee.

2) The permittee shall submit all changes, and obtain approval of all substantial changes in its approved pretreatment program in accordance with 40 CFR 403.18.

3) The permittee's implementation of its pretreatment program shall at a minimum, meet the requirements listed below. Where the approved program required more stringent or more frequent activity, the requirements of the approved program shall apply.

   a) The permittee shall provide written notice of applicable pretreatment requirements to all industrial users. For significant industrial users (SIUs) such written notice shall be through individual discharge permits or other equivalent control mechanism in accordance with 40 CFR 403.8(f). All SIU control mechanisms shall be in place within 6 months of program approval and shall not be issued for a period which exceeds 5 years. SIU control mechanisms shall be reissued within 3 months of expiration, and administrative extensions shall not be granted without written consent from the Approval Authority.

   b) Each SIU shall be sampled by the permittee at least once per year. Such sampling shall include all regulated parameters.

   c) Each SIU shall be inspected by the permittee at least once per year. Such inspection shall cover all areas which could result in wastewater discharge to the sewer including manufacturing areas, chemical storage areas, pretreatment facilities, spill prevention and control procedures, hazardous waste generation, and industrial self-monitoring procedures and records.

   d) The permittee shall implement the industrial reporting requirements of 40 CFR 403.12.

e) The permittee shall develop and obtain Approval Authority approval of a written enforcement response plan (ERP) within 6 months of permit issuance. The ERP shall indicate how instances of violation will be investigated, what enforcement options are available to the POTW, contain a listing of potential industrial violations, and state the type of action and timeframe for the permittee's enforcement for each violation. Where approval of the ERP has been previously granted, the permittee shall reevaluate its ERP and submit the results of the reevaluation and a revised ERP within 6 months of permit issuance.

f) The permittee shall take timely and appropriate enforcement in accordance with its approved ERP for all instances of industrial violations.

g) The permittee shall submit to the Approval Authority a reevaluation of its local limits based on a headworks analysis of its treatment plant within 1 year of permit issuance. At a minimum, the headworks analysis shall include arsenic, cadmium, chromium, copper, cyanide (T), lead, mercury, nickel, silver, zinc, any parameter limited by this permit or sludge disposal requirements, and any other pollutant which the permittee or approval authority believes may be discharged by its industries in amounts which may cause pass-through or interference. The list of pollutants to be evaluated shall be submitted within 3 months of permit issuance.

h) The permittee shall conduct monitoring at its treatment plant based on its permitted flows, as follows:

   i) >20 MGD - monthly influent, effluent and sludge analysis for all local limit parameters, semi-annual priority pollutant scan for influent and sludge.

   ii) >5-20 MGD - monthly influent, effluent and sludge analysis for all local limit parameters, annual priority pollutant scan for influent and sludge.

   iii) 1-5 MGD - quarterly influent, effluent and sludge analysis for all local limit parameters, annual priority pollutant scan for influent and sludge.

   iv) <1 MGD - annual influent, effluent and sludge analysis for all local limit parameters, priority pollutant scan for influent and sludge within 1 year.

i) The permittee shall ensure that adequate resources are available (equipment and personnel) to fully implement the pretreatment program.

4) EPA and DER retain the right to require the permittee to institute changes to its pretreatment program if:

a) the program is not implemented in a way satisfying the requirements of 40 CFR 403;

b) problems such as interference, pass-through or sludge contamination develop or continue;

c) Federal, State, or local requirements change.

5) By March 31 of each year, the permittee shall submit to EPA and DER an annual report that describes the permittee's pretreatment activities for the previous calendar year. The annual report shall include pretreatment activities in all municipalities from which wastewater is received at the permittee's treatment plant. The submission to DER shall be incorporated into the permittee's annual Municipal Wasteload Management report required by DER's Chapter 94 Rules and Regulations. The annual report shall include the following:

a) Control Mechanism Issuance - a summary of SIU control mechanism issuance including a list of issuance and expiration dated for each SIU.

b) Sampling and Inspection - a summary of the number and type of inspections and samplings of SIUs by the permittee, including a list of all SIUs either not sampled or not inspected.

c) Industrial User Compliance and POTW Enforcement - a summary of the number and type of violations of pretreatment regulations and the actions taken by the permittee to obtain compliance. For each SIU, the report shall say whether the user was a significant violator under 40 CFR 403.8, an infrequent (non-significant) violator, or in compliance for the entire year. A copy of the published list of significant violators shall be included.

d) Industrial Listing - an updated industrial listing showing all current SIUs and the categorical standard, if any, applicable to each.

e) Summary of POTW Operations - any interference upset, or permit violations experienced at the POTW which may be attributed to industrial users, and actions taken to alleviate said events. Sampling and analysis of treatment plant influent and sludge for toxic and incompatible pollutants shall also be included with an analysis of any trends in the data since pretreatment program approval.

f) Pretreatment Program Changes - a summary of any changes to the approved program and the date of submission to the Approval Authority.

NAME: York City Sewer Authority
ADDRESS: 17 East Market Street
York, PA 17404

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT

0026263 PERMIT NUMBER	002 DISCHARGE NUMBER

Facility Location: Manchester Township, York County

MONITORING PERIOD — From: YEAR / MO / DAY — To: YEAR / MO / DAY

Note: Read instructions before Completing this form

PARAMETER		Quantity or Loading: Average	Quantity or Loading: Maximum	Quantity or Loading: Units	Quality or Concentration: Minimum	Quality or Concentration: Average	Quality or Concentration: Maximum	Quality or Concentration: Units	No Ex.	Frequency of Analysis	Sample Type
FLOW	Sample Measurements				* * *	* * *	* * *	*			
	Permit Requirements	26 Mo Avg	Report Daily Mx	MGD	* * *	* * *	* * *	*	*	Continuous	Measure
5-DAY CBOD (5/1 - 10/31)	Sample Measurements				* * *						
	Permit Requirements	3252 Mo Avg	4879 Mx Wk Av	lbs/day	* * *	15 Mo Avg	22.5 Mx Wk Av	mg/l	*	Daily	24-hour comp
5-DAY CBOD (11/1 - 4/30)	Sample Measurements				* * *						
	Permit Requirements	5421 Mo Avg	8673 Mx Wk Av	lbs/day	* * *	25 Mo Avg	40 Mx Wk Av	mg/l	*	Daily	24-hour comp
TOTAL SUSPENDED SOLIDS	Sample Measurements				* * *						
	Permit Requirements	6505 Mo Avg	9758 Mx Wk Av	lbs/day	* * *	30 Mo Avg	45 Mx Wk Av	mg/l	*	Daily	24-hour comp
DISSOLVED OXYGEN	Sample Measurements	* * *	* * *	*		* * *	* * *				—
	Permit Requirements	* * *	* * *	*	5.0 Inst Min	* * *	* * *	mg/l	*	Daily	Grab
PHOSPHORUS AS P	Sample Measurements				* * *						—
	Permit Requirements	434 Mo Avg	650 Mx Wk Av	MGD	* * *	2 Mo Avg	3 Mx Wk Av	mg/l	*	Daily	24-hour comp
pH	Sample Measurements	* * *	* * *	*		* * *					
	Permit Requirements	* * *	* * *	*	6.0 Minimum	* * *	9.0 Maximum	S.U.	*	Daily	Grab

Type or Print:

Executive Officer	I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information I believe the submitted information is true accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment see 18 USC §1001 and 33 USC §1319.		Telephone: ( ) Area Code Number
Title of Principal Executive Officer		SIGNATURE OF PRINCIPAL OFFICER OR AUTHORIZED AGENT	Date:

COMMENT AND EXPLANATION OF ANY VIOLATIONS:

NAME: York City Sewer Authority
ADDRESS: 17 East Market Street
York, PA 17404

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT

0026263 PERMIT NUMBER	002 DISCHARGE NUMBER

MONITORING PERIOD							
From	YEAR	MO	DAY	To	YEAR	MO	DAY

Facility Location: Manchester Township, York County

Note: Read instructions before Completing this form

PARAMETER		Quantity or Loading			Quality or Concentration				No Ex.	Frequency of Analysis	Sample Type
		Average	Maximum	Units	Minimum	Average	Maximum	Units			
NH3-N (5/1 - 10/31)	Sample Measurements				* * *						
	Permit Requirements	369 Mo Avg	564 Mx Wk Av	lbs/day	* * *	1.7 Mo Avg	2.5 Mx Wk Av	mg/l	*	Daily	24-hour comp
NH3-N (11/1 - 4/30)	Sample Measurements				* * *						
	Permit Requirements	1127 Mo Avg	1713 Mx Wk Av	lbs/day	* * *	5.2 Mo Avg	7.9 Mx Wk Av	mg/l	*	Daily	Grab
FECAL COLIFORM (5/1 - 9/30)	Sample Measurements	* * *	* * *	*	* * *		* * *				
	Permit Requirements	* * *	* * *	*	* * *	200 30Day Geo	* * *	No. 100 ml	*	Daily	Grab
FECAL COLIFORM (10/1 - 4/30)	Sample Measurements	* * *	* * *	*	* * *		* * *				Grab
	Permit Requirements	* * *	* * *	*	* * *	2000 * 30Day Geo	* * *	No. 100 ml	*	Daily	Grab
	Sample Measurements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *
	Permit Requirements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *
	Sample Measurements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *
	Permit Requirements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *
	Sample Measurements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *
	Permit Requirements	* * *	* * *	*	* * *	* * *	* * *	*	*	* * *	* * *

Type or Print:

Executive Officer	I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information I believe the submitted information is true accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment see 18 USC §1001 and 33 USC §1319.		Telephone: ( ) Area Code Number
Title of Principal Executive Officer		SIGNATURE OF PRINCIPAL OFFICER OR AUTHORIZED AGENT	Date:

COMMENT AND EXPLANATION OF ANY VIOLATIONS:

5111

BOOK PAGE
0201 1116

ER-BWQ-69: Rev. 4/73

Water Quality Management Part I Permit No. PA 0026263
York City Sewer Authority
17 East Market Street
York, PA 17404

Manchester Township
York County

STATE OF PENNSYLVANIA

} SS

COUNTY OF DAUPHIN

Leon M. Oberdick
Regional Water Quality Manager

On the 8th day of July in the year one thousand nine hundred and ninety one before me, the Subscriber, A Notary Public, came the above name

Leon M. Oberdick, Regional Water Quality Manager

and duly acknowledged the foregoing permit to be his act and deed and desired that the same might be recorded as such.

Witness my hand and notarial seal the day and year aforesaid.

I Certify This Document To Be
Recorded In York County, Pa.

Linda K. Cooper 7/8/91
NOTARY PUBLIC

NOTARIAL SEAL
LINDA K COOPER, Notary Public
Halifax Twp., Dauphin County
My Commission Expires June 21, 1993

Recorder of Deeds.

Mail To. David Wm. Bupp, Esq.
17 E. Market St.
York, PA 17401

Appendix A-5-1 (AUS)

BUCHART HORN
ENGINEERS · ARCHITECTS · PLANNERS

EXECUTION COPY

ASSET PURCHASE AGREEMENT

By and Among

York City Sewer Authority
As Seller

The City of York

and

Pennsylvania-American Water Company
As Buyer

Dated as of April 6, 2021

ASSET PURCHASE AGREEMENT

THIS ASSET PURCHASE AGREEMENT (this "**Agreement**"), dated as of April 6, 2021 (the "**Effective Date**"), is made and entered into by and among The York City Sewer Authority, York County, a body corporate and politic, duly organized under the Pennsylvania Municipality Authorities Act, 53 Pa. C.S. §§ 5601 *et seq.* (the "**Seller**"), the City of York, Pennsylvania, a political subdivision of the Commonwealth of Pennsylvania organized under the Third Class City Code, Act of November 24, 2015, P.L. 67, 11 Pa. C.S. §10101 *et seq.* (the "**City**") and Pennsylvania-American Water Company, (the "**Buyer**"), a Pennsylvania corporation.

WITNESSETH:

WHEREAS, Seller, acting by and through the Board (defined below), owns and the City operates a wastewater system (the "**System**") that provides public wastewater collection and treatment service to various customers in the City and public wastewater treatment and conveyance services to the City, Manchester Township, West Manchester Township, York Township, North York Borough, West York Borough, Spring Garden Township, and Springettsbury Township; and

WHEREAS, Buyer is a regulated public utility that furnishes water and wastewater service to the public in various counties throughout Pennsylvania; and

WHEREAS, Buyer, in reliance upon the representations, warranties and covenants of Seller and City herein, desires to purchase and acquire from Seller, and Seller, in reliance upon the representations, warranties and covenants of Buyer herein, desires to sell, transfer and convey to Buyer all of the assets of the System (other than the Excluded Assets), and in connection therewith, Buyer has agreed to assume certain ongoing obligations and liabilities of Seller related to such acquired assets, all on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and of the mutual representations, warranties, covenants, and agreements herein contained, the receipt and sufficiency of which hereby are acknowledged, intending to be legally bound, the Parties hereto agree as follows:

ARTICLE I.

DEFINITIONS

In addition to the capitalized terms defined elsewhere in this Agreement, the following terms, as used in this Agreement (unless otherwise specified therein), shall have the meanings set forth in this Article I:

"Acquired Assets" has the meaning specified in Section 2.01.

"Act 537 Official Plan" means the official plan required under the Pennsylvania Sewage Facilities Act, 35 P.S. §§ 75101—750.20a, and 25 Pa. Code Chapter 71, titled "York City Sewer Authority Regional Act 537 Plan," dated March 1999 and prepared by Buchart Horn, Inc.

"Affiliate" means, when used to indicate a relationship with a specified Person, a Person that, directly or indirectly, through one or more intermediaries, has a 10% or more voting or economic interest in such specified Person or controls, is controlled by, or is under common control with (which

shall include, with respect to a managed fund or trust, the right to direct or cause the direction of the management and policies of such managed fund or trust as manager, advisor, supervisor, sponsor or trustee pursuant to relevant contractual arrangements) such specified Person, and a Person shall be deemed to be controlled by another Person if controlled in any manner whatsoever that results in control in fact by that other Person (or that other Person and any Person or Persons with whom that other Person is acting jointly or in concert), whether directly or indirectly and whether through share ownership, a trust, a contract or otherwise (and for purposes of this definition, a managed fund or trust shall be deemed to be an Affiliate of the Person managing, supervising, sponsoring or advising such fund or trust and a limited partner in a managed fund or trust shall be deemed to be an Affiliate of such fund or trust and of the Person managing, supervising, sponsoring or advising such fund or trust).

"Agreement" has the meaning ascribed thereto in the recitals to this Agreement (and includes all Schedules and Exhibits referred to herein), as amended, modified and supplemented from time to time in accordance with the terms hereof.

"**Agreement Proposal Security**" means the $5,000,000 bid bond made by Buyer for the account of Seller under and pursuant to that Cash Deposit Escrow Agreement, dated December 8, 2020, by and among Fulton Bank, N.A., Buyer and the City.

"Assigned Contracts" has the meaning specified in Section 2.01(c).

"Assignment and Assumption Agreement" has the meaning specified in Section 12.02(c).

"Assumed Liabilities" has the meaning specified in Section 2.04(a).

"Authorizations and Permits" means all licenses, permits, franchises, authorizations, plans, certificates, registrations, consents, orders, adjudications, enforcement agreements, variances, waivers and approvals currently in effect issued or granted by Governmental Authorities, including without limitation, permits, authorizations, and plans issued under any Laws governing protection of the Environment, operating permits, and approvals that are held by Seller or the City that primarily relate directly or indirectly to the operation of the System, including those described in Schedule 4.14.

"**Average Daily AR Payment**" has the meaning specified in Section 6.12.

"Board" means the Board of the York City Sewer Authority.

"Business Day" means any day that is neither a Saturday, a Sunday nor a day observed as a holiday by either the Commonwealth of Pennsylvania or the United States government.

"Buyer" has the meaning specified in the Preamble of this Agreement.

"Buyer Indemnified Persons" has the meaning specified in Section 7.02.

"CERCLA" means the Comprehensive Environmental Response Compensation and Liability Act of 1980, 42 U.S.C. § 9601 *et seq*., as amended.

"City" has the meaning specified in the Preamble of this Agreement.

"City's Benefit Obligations" has the meaning specified in Section 4.11.

"**City Deposit**" has the meaning specified in Section 3.01.

"City's Plans" has the meaning specified in Section 4.11.

"Closing" means the consummation of the sale and purchase of the Acquired Assets and assumption of the Assumed Liabilities, the release/waiver of liabilities and the other transactions contemplated hereby, all in accordance with the terms and conditions of this Agreement and as provided for in Article XII.

"Closing Date" has the meaning specified in Section 12.01.

"Closing Effective Time" has the meaning specified in Section 12.01.

"COBRA" means Title X of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, including, without limitation, Sections 2201 through 2208 of the Public Health Service Act and Part 6 of Subtitle B of the Employee Retirement Income Security Act of 1974, as amended.

"Code" means the Internal Revenue Code of 1986, as amended.

"**Collective Bargaining Agreement**" means the existing collective bargaining agreement between Teamsters Local 776 and the City for the period of January 1, 2019 to December 31, 2022.

"Confidential Information" means any information about Buyer, Seller or the System related to the transactions contemplated by this Agreement; provided, however, that such term does not include information which the receiving Party can demonstrate is (a) generally available to or known by the public other than as a result of improper disclosure by the receiving Party, (b) obtained by the receiving Party from a source other than the disclosing Party, provided that such source was not bound by a duty of confidentiality to the disclosing Party with respect to such information, or (c) legally in the public domain.

"**Consent Order**" has the meaning specified in Section 6.13.

"**Deposit Note"** means the tax and revenue anticipation note substantially in the form as set forth in Exhibit A and to be issued by the City to the Buyer in connection with the Buyer's agreement to make the City Deposit as set forth in Section 3.01.

"Easements" means all easements, rights of way, licenses, use agreements, occupancy agreements, leases and other agreements and appurtenances for the operation of the System located on and over the real property of third parties.

"Effective Date" has the meaning specified in the Preamble.

"Environment" means soil, surface waters, ground waters, land, stream sediments, flora, fauna, surface or subsurface strata and ambient air.

"Environmental Claims" means all notices of investigations, warnings, notice letters, notices of violations, liens, orders, claims, demands, suits or administrative or judicial actions for any injunctive relief, fines, penalties, third-party claims, or other claims asserting violations of Environmental Requirements or responsibility for Environmental Liabilities.

"Environmental Conditions" means the Release of Regulated Materials or the presence of Regulated Materials on, in, under or within any property (including the presence in the Environment), other than the presence of Regulated Materials in locations and at concentrations that are naturally occurring.

"Environmental Liabilities" means any legal obligation or liability arising under Environmental Requirements or related to or arising out of any Environmental Condition, including those consisting of or relating to any (a) duty imposed by, breach of or noncompliance with any Environmental Requirements; (b) environmental, health or safety matters or conditions (including on-site or off-site contamination, occupational safety and health and regulation of Regulated Materials); (c) Remedial Action undertaken by any Person; (d) bodily injury (including illness, disability and death, and regardless of when any such bodily injury occurred, was incurred or manifested itself), property damage (including trespass, nuisance, wrongful eviction and deprivation of the use of real or personal property), or other losses or damages incurred by any other Person (including any employee or former employee of such Person); (e) any injury to, destruction of, or loss of natural resources, or costs of any natural resource damage assessments; (f) exposure of any Person to any Regulated Materials; and (g) the presence or Release of any Regulated Materials.

"Environmental Requirements" mean all present Laws (including common law), rules, regulations, legally binding or otherwise enforceable requirements and any Authorizations and Permits relating to human health, pollution, or protection of the Environment, including (i) those relating to emissions, discharges, Releases, or threatened Releases of Regulated Materials, and (ii) those relating to the identification, generation, manufacture, processing, distribution, use, treatment, storage, disposal, release, recovery, transport or other handling of Regulated Materials, (iii) the regulations promulgated pursuant to the above-listed federal statutes, and (iv) counterpart Laws and regulations promulgated or issued by any state or local Governmental Authority.

"EPA" means the United States Environmental Protection Agency, or a successor Governmental Authority with substantially similar power and authority thereto.

"Equipment and Machinery" means (i) all the equipment, tangible personal property, machinery, office furniture and equipment, fixtures, tooling, spare maintenance or replacement parts, environmental testing equipment, and vehicles owned or leased by Seller or the City (including all leases of such property), which are primarily used in the operation of the System, (ii) any rights of Seller or the City to warranties applicable to the foregoing (to the extent assignable), and licenses received from manufacturers and sellers of any such item (to the extent assignable), and (iii) any related claims, credits, and rights of recovery with respect thereto. Notwithstanding the foregoing, "Equipment and Machinery" shall not include any Excluded Assets.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

"Excluded Assets" has the meaning specified in Section 2.02.

"Excluded Liability" or **"Excluded Liabilities"** means all liabilities other than the Assumed Liabilities.

"Files and Records" means all files and records of Seller or the City primarily relating to the System, whether in hard copy, digital or magnetic or other format including data, geographic system data, customer and supplier records, customer lists (both current and prospective), records of sales

calls, manuals, books, files, records, engineering data, procedures, systems, instructions, drawings, blueprints, plans, designs, specifications, equipment lists, parts lists, equipment maintenance records, equipment warranty information, plant plans, specifications and drawings, sales and advertising material, computer software, and records relating-to Transferred Personnel, and whether stored on-site or off-site.

"Final Order" means a Governmental Approval by a Governmental Authority as to which (a) no request for stay of the action is pending, no such stay is in effect and if any time period is permitted by statute or regulation for filing any request for such stay, such time period has passed, (b) no petition for reconsideration or rehearing of the action is pending and the time for filing any such petition has passed, (c) such Governmental Authority does not have action under consideration on its own motion and (d) no appeal to a court or administrative tribunal or a request for stay by a court or administrative tribunal of the Government Authority's action is pending or in effect and the deadline for filing any such appeal or request for stay has passed.

"Governmental Approval" means any consent, approval, authorization, notice, filing, registration, submission, reporting, order, adjudication or similar item of, to or with any Governmental Authority that is required for Closing or otherwise for compliance with the law.

"Governmental Authority" or **"Governmental Authorities"** means any court, department, commission, board, bureau, municipality, municipal authority (established pursuant to the Municipality Authorities Act of the Commonwealth of Pennsylvania), agency or instrumentality of the United States, any state, county, city or political subdivision thereof, or any foreign governmental body, including without limitation, the PaPUC, the EPA, PaDEP, the York County Conservation District, and the Board.

"Indemnified Party" means any Buyer Indemnified Persons or Seller Indemnified Persons, as applicable, entitled to indemnification pursuant to Article VII.

"Indemnifying Party" means a Party which is obligated to indemnify Buyer Indemnified Persons or Seller Indemnified Persons, as applicable, pursuant to Article VII.

"**Knowledge**" means, (i) with respect to Seller, the actual knowledge of Michael Helfrich, Mayor, Daniel Hevner, Assistant Business Administrator, Thomas Ray, Business Administrator, Chaz Green, Director of Public Works, and (ii) with respect to Buyer, the actual knowledge of the Bernard Grundusky Jr., Keith Gabage, Michael Doran.

"Law" means any applicable law, statute, regulation, ordinance, rule, order, judicial, administrative and regulatory decree, judgment, adjudication, consent decree, consent agreement, settlement agreement, or governmental requirement enacted, promulgated, entered into, agreed or imposed by any Governmental Authority, as may be in effect at the relevant time or times in the context in which the term is used.

"Liability Cap" has the meaning specified in Section 7.05(c).

"Lien" means any lien in a fixed and ascertainable monetary sum, or any pledge, mortgage, deed of trust or security interest securing a fixed and ascertainable monetary sum, or any charge or claim in a fixed and ascertainable monetary sum. In addition, in connection with Real Property, any

item otherwise falling within the definition of a "Lien" must be filed of record by the responsible Party in accordance with the terms of this Agreement.

"Loss" means any and all losses, liabilities, obligations, damages, penalties, interest, Taxes, claims, actions, demands, causes of action, judgments, reasonable attorneys', consultants' and other professional fees, and all other reasonable costs and expenses sustained or incurred in investigating, preparing or defending or otherwise incident to any such claim, action, demand, cause of action or judgment or the enforcement of a Party's rights under Article VII; *provided, however,* that "Losses" shall not include punitive, incidental, consequential, special or indirect damages, including loss of future revenue or income, loss of business reputation or opportunity relating to the breach or alleged breach of this Agreement, or diminution of value or any damages based on any type of multiple, except in the case of fraud or to the extent actually awarded to a Governmental Authority or other third party in respect of a Third-Party Claim.

"Material Adverse Effect" means any event, occurrence, change, circumstance, fact, or condition that has either individually or in the aggregate with all other events, changes, circumstances, effects or other matters, with or without notice, lapse of time or both, a material adverse impact on (a) the System, Acquired Assets, Assumed Liabilities, or properties or condition (financial or otherwise) of the System, or (b) the ability of Seller to perform its obligations under this Agreement or to consummate the transactions contemplated by this Agreement**.** provided, however, that no effect arising out of or in connection with or resulting from any of the following shall be deemed, either alone or in combination, to constitute or contribute to a Material Adverse Effect: (i) general economic conditions or changes therein; (ii) financial, banking, currency or capital markets fluctuations or conditions (either in the United States or any international market and including changes in interest rates); (iii) conditions affecting the real estate, financial services, construction, water utility or sewer utility industries generally; (iv) any existing event, circumstance, condition or occurrence of which Buyer has actual knowledge as of the Effective Date; (v) any action, omission, change, effect, circumstance or condition contemplated by this Agreement or attributable to the execution, performance or announcement of this Agreement or the transactions contemplated hereby; and (vi) negligence, intentional misconduct or bad faith of Seller or Buyer or their Representatives.

"Municipal Industrial Pretreatment Program" means the program administered by the City on behalf of Seller under Part 9 Title 3, Article 931 of the City's Codified Ordinances.

"Outside Date" means 365 days after the date of the application to the PaPUC is accepted as complete by the PaPUC and the statutory six-month period for PaPUC final action is initiated under 66 Pa. C.S. § 1329(d)(2).

"Outstanding Indebtedness" means the outstanding indebtedness of Seller as set forth on Schedule 4.06.

"Nonassignable Asset" has the meaning specified in Section 2.07(a).

"Nonassignable Authorization or Permit" has the meaning specified in Section 2.06(a).

"Operational Arrangement" has the meaning specified in Section 2.06(b).

"PaDEP" means the Pennsylvania Department of Environmental Protection, or any successor Governmental Authority with substantially similar powers thereto.

"PaPUC" means the Pennsylvania Public Utility Commission, or any successor Governmental Authority with substantially similar powers thereto.

"Party" means Buyer, City or Seller and the term "Parties" means collectively Buyer, City and Seller.

"Permitted Liens" means (a) Liens for Taxes not yet due and payable or being contested in good faith by appropriate procedures; (b) easements, rights of way, zoning ordinances and other similar encumbrances affecting Real Property; (c) other than with respect to Real Property owned by Seller, Liens arising under original purchase price conditional sales contracts and equipment leases with third parties entered into in the ordinary course of business; (d) any right reserved to or vested in any Governmental Authority by any statutory provision or under common law; and (e) other imperfections of title or Liens, if any, that have not had, and would not have, a Material Adverse Effect.

"Person" means any individual (including, the heirs, beneficiaries, executors, legal representatives or administrators thereof), corporation, partnership, joint venture, trust, limited liability company, limited partnership, joint stock company, unincorporated association or other entity or a Governmental Authority.

"Personnel" means the employees of the City as provided in Schedule 6.03(a).

"Purchase Price" has the meaning specified in Section 3.01.

"**City Deposit**" has the meaning specified in Section 3.01.

"Real Property" means all real property that Seller owns in fee and uses or holds for use in the operation of the System.

"Regulated Materials" means any material regulated under any Environmental Requirement, including solid, liquid, gas, odor, heat, sound, vibration, radiation or other substance or emission that is a contaminant, pollutant, dangerous substance, toxic substance, hazardous waste, residual waste, solid waste, hazardous material or hazardous substance which is defined and regulated by applicable Environmental Requirements or which is classified as hazardous or toxic under applicable Environmental Requirements (including gasoline, diesel fuel or other petroleum hydrocarbons, polychlorinated biphenyls, asbestos, and urea formaldehyde foam insulation).

"Regulated Asbestos Containing Material" means regulated asbestos containing material as defined by 40 C.F.R. § 61.141.

"Release" means any actual spilling, leaking, pumping, pouring, injecting, emptying, discharging, emitting, escaping, leaching, dumping, disposal, or release or migration of Regulated Materials into the Environment, including the abandonment or discarding of barrels, containers and other receptacles containing any Regulated Materials.

"Remedial Action" means any and all actions to (a) investigate, characterize, clean up, remediate, remove, treat, contain or in any other way address any Regulated Materials in the Environment, (b) prevent the Release or threat of Release or minimize the further Release of any Regulated Materials so it does not migrate or endanger public health or welfare or the indoor or outdoor Environment, (c) perform pre-remedial studies and investigations and post-remedial monitoring, maintenance and care, and (d) mitigate impacts to wetlands, surface water bodies, and/or

environmentally sensitive areas. The term "Remedial Action" includes any action which constitutes (i) a "removal", "remedial action" or "response" as defined by Section 101 of CERCLA, 42 U.S.C. §§ 9601(23), (24), and (25); (ii) a "corrective action" as defined in RCRA, 42 U.S.C. § 6901 *et seq*.; or (iii) a "response" or "interim response" as defined in the Pennsylvania Hazardous Sites Cleanup Act, 35 P.S. §6020.103.

"Representative" means, with respect to any Person, any director, officer, employee, official, lender mortgagee, financier, provider of any financial instrument (or any agent or trustee acting on their behalf), partner, member, owner, agent, lawyer, accountant, auditor, professional advisor, consultant, engineer, contractor, other Person for whom such Person is at law responsible or other representative of such Person and any professional advisor, consultant or engineer designated by such Person as its "Representative."

"Schedules" means the disclosure schedules delivered by Seller and Buyer, respectively, concurrently with the execution and delivery of this Agreement, and as may be supplemented and updated pursuant to Sections 8.04 and 9.04. Any disclosure set forth on any particular Schedule shall be deemed disclosure in reference to all Schedules comprising the Schedules to which such disclosure is reasonably apparent.

"Seller" has the meaning specified in the Preamble of this Agreement.

"Seller Indemnified Persons" has the meaning specified in Section 7.03.

"Supplies" means all lubricants, fuel, chemicals, raw materials, and other supplies, and all rights to warranties received from suppliers with respect to the foregoing, and related claims, credits, and rights of recovery with respect thereto.

"System" has the meaning specified in the recitals to this Agreement and shall include the Acquired Assets and exclude the Excluded Assets.

"Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, severance, stamp, occupation, premium, windfall profits, environmental, customs duties, permit fees, permit transfer and/or assignment fees, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, parking, sales, use, transfer, value added, alternative or add-on minimum, estimated or other tax, levy, impost, stamp tax, duty, fee, withholding or similar imposition of any kind payable, levied, collected, withheld or assessed at any time, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any return, report, statement, schedule, notice, form, declaration, claim for refund or other document or information filed with or submitted to any Governmental Authority in connection with the determination, assessment, collection or payment of Taxes.

"Threshold Amount" has the meaning specified in Section 7.05(a).

"Third-Party Claim" has the meaning specified in Section 7.04(a).

"Transfer Taxes" has the meaning specified in Section 3.02.

"Transferred Personnel" has the meaning specified in Section 6.03(d).

"**Union**" means the International Brotherhood of Teamsters, Local 776.

"Unscheduled Real Property" has the meaning specified in Section 6.11.

ARTICLE II.

TERMS OF PURCHASE AND ASSUMPTION OF LIABILITIES

Section 2.01 Purchase and Sale of Acquired Assets. Subject to the terms and conditions set forth in this Agreement, at Closing, Buyer shall purchase from Seller and Seller and the City shall sell, transfer, assign and deliver to Buyer, free and clear of all Liens except for Permitted Liens, all of Seller's and the City's right, title and interest in and to all assets, facilities, business, goodwill, properties and rights of Seller of every kind and description, whether tangible or intangible, real, personal or mixed, wherever situated, in each case used in, held for use in, or acquired or developed for use in, the System, or otherwise related to, or arising out of the operation or conduct of the System (whether or not any such assets have any value for accounting purposes or are carried or reflected on the books or financial records of Seller), but in all cases other than the Excluded Assets (the foregoing collectively referred to as the "**Acquired Assets**"), including:

(a) all real property and appurtenant interests, Easements, property rights and privileges owned, held, licensed or leased by Seller and used in the operation of the System, including the Real Property, leases, licenses and other arrangements by or between Seller and third Persons with respect to the Real Property or other Acquired Assets and fixtures;

(b) all sanitary sewer related treatment, collection, mains (including laterals from main to curb-line and edge of road or edge of easement, where collection facilities are located within private property) interceptors, metering locations and meters as well as conveyance facilities, including but not limited to: (i) Seller's sewer treatment plant, including cogeneration facilities, located at 1701 Black Bridge in York, PA; and (ii) Seller's pumping stations, manholes, pipelines, and billing and collections related assets necessary to run the System;

(c) all contracts, licenses, agreements, orders and leases identified on Schedule 4.15 as contracts to be assigned (the "**Assigned Contracts**");

(d) all Supplies;

(e) all personal property and fixed assets, including all Equipment and Machinery, auxiliary equipment and plant equipment;

(f) all prepaid expenses and security deposits;

(g) all Files and Records;

(h) all Authorizations and Permits of or held by Seller or the City (to the extent transferrable to Buyer under applicable Law), listed or described on Schedule 4.14 hereto;

(i) any accounts receivable to the extent attributable to services or products to be sold, delivered or provided from and after the Closing; and

(j) all goodwill of the System.

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, (A) THE ACQUIRED ASSETS SHALL BE SOLD, TRANSFERRED, ASSIGNED AND DELIVERED TO BUYER "AS IS", "WHERE IS", AND "WITH ALL FAULTS", AND (B) SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY OF ANY KIND WHATSOEVER, INCLUDING ANY REPRESENTATION AS TO THE PHYSICAL CONDITION OR VALUE OF ANY OF THE ACQUIRED ASSETS OR THE SYSTEM, OR THE FUTURE PROFITABILITY OR FUTURE EARNINGS PERFORMANCE OF THE ACQUIRED ASSETS OR THE SYSTEM OR ANY FUTURE RATEMAKING THAT MAY BE ALLOWED BY THE PAPUC FOR ANY OF THE ACQUIRED ASSETS. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

Section 2.02 Excluded Assets. Notwithstanding anything herein to the contrary, the Acquired Assets shall not include the following (the "**Excluded Assets**"):

(a) all contracts, licenses and leases that are not Assigned Contracts;

(b) the seals, organizational documents, minute books, Tax Returns, books of account or other records having to do with the organization of Seller and all employee-related or employee benefit-related files or records;

(c) cash and cash equivalents, including accounts receivable and existing financial security guaranteeing installation of public improvements (including sewer facilities);

(d) all insurance policies of Seller and all rights to applicable claims and proceeds thereunder;

(e) subject to Section 4.11, all City's Plans or other assets attributable thereto;

(f) all rights to any action, suit or claim of any nature available to or being pursued by Seller, whether arising by way of counterclaim or otherwise;

(g) all assets, properties and rights used by Seller other than those which primarily relate to the operations of the System;

(h) the assets, properties and rights specifically set forth on Schedule 2.02(h);

(i) all right, title and interest in and to any facilities, rights of way or real property interests granted or conveyed to Seller in any of the documents identified on Schedule 4.09 that do not relate to the System, including, without limitation, any and all water utility and storm sewer assets; and

(j) the rights which accrue or will accrue to Seller under this Agreement and any related agreement, exhibit or schedule.

Section 2.03 Sale Free of Liens. After Buyer fulfills its obligations pursuant to Section 3.01(a) and Article X, the Acquired Assets to be sold, conveyed, transferred, assigned and delivered by Seller and the City to Buyer, as herein provided, shall be on the Closing Date, free and clear of all Liens other than Permitted Liens. Such Acquired Assets shall be conveyed by appropriate special warranty or other deed, bills of sale, endorsements, assignments and other instruments of transfer or conveyance described herein, and if not expressly described herein, then by transfer

documents satisfactory in form and substance reasonably acceptable to Buyer, City and Seller and their counsel in their reasonable, good faith discretion.

Section 2.04 Assumption of Liabilities.

(a) On the terms and conditions set forth in this Agreement, Buyer shall assume and agrees to pay, perform and discharge when due any and all liabilities and obligations of Seller or the City arising out of or relating to the System or the Acquired Assets on or after the Closing, including, without limitation, the following:

(i) all liabilities and obligations arising on or after the Closing under Seller's Authorizations and Permits;

(ii) all liabilities and obligations under the Assigned Contracts arising on or after the Closing;

(iii) all liabilities and obligations under the Collective Bargaining Agreement arising on or after the Closing;

(iv) all liabilities and obligations relating to employee benefits, compensation or other arrangements with respect to any Transferred Personnel arising on or after the Closing;

(v) any litigation initiated against Seller or the City related to the System or the Acquired Assets resulting from events that occur or conditions that exist on or after the Closing;

(vi) all liabilities and obligations for Taxes relating to the System, its operation, the Acquired Assets and the Assumed Liabilities for any tax liabilities attributable to the period after the Closing Date;

(vii) all liabilities and obligations under the Consent Order arising on or after the Closing; and

(viii) all other liabilities and obligations arising out of or relating to Buyer's ownership or operation of the System and the Acquired Assets on or after the Closing, (all of the aforementioned liabilities in this Section 2.04(a) are referred to as the "**Assumed Liabilities.**" Any other liabilities are Excluded Liabilities).

(b) At the Closing, to the extent Seller is not released therefrom, Seller and the City shall be indemnified against its obligations under the Assumed Liabilities in accordance with Section 7.03.

(c) Buyer shall not assume or be liable to pay any liabilities or obligations relating to the Excluded Liabilities or any other liabilities or obligations that are not Assumed Liabilities.

Section 2.05 Further Assurances. At any time and from time to time after the Closing Date, Seller or the City shall, upon the request of Buyer, and Buyer shall, upon the request of Seller or the City, at the cost of requesting Party, promptly execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate, (a) the sale, conveyance, transfer, assignment and delivery hereunder of the Acquired Assets to Buyer, (b) the assumption by Buyer of

any of the Assumed Liabilities, (c) performance by the Parties of any of their other respective obligations under this Agreement, (d) the vesting in Buyer of all right, title and interest in the Acquired Assets and the System as provided herein, and (e) any other matters reasonably requested by a Party to carry out the provisions, purposes and intent of this Agreement.

Section 2.06 Certain Transfers; Assignment of Authorizations and Permits.

(a) Notwithstanding anything to the contrary in this Agreement, and subject to the provisions of this Section 2.06(a) and Section 2.06(b), to the extent that the sale, transfer, assignment, conveyance and delivery, or attempted sale, transfer, assignment, conveyance and delivery, to Buyer of any Authorization or Permit would result in a violation of applicable Law, or would require the consent, authorization, approval or waiver of any Person (other than the Parties hereto), including any Governmental Authority, and such consent, authorization, approval or waiver shall not have been obtained prior to the Closing, this Agreement shall not constitute a sale, transfer, assignment, conveyance and delivery, or an attempted sale, transfer, assignment, conveyance and delivery, thereof (any such Authorization or Permit, a "**Nonassignable Authorization or Permit**"). Following the Closing, Seller, the City and Buyer shall use commercially reasonable efforts (at the cost and expense of the Party that is responsible for compliance with such Law or obtaining such consent, authorization, approval or waiver), and shall cooperate with each other, to obtain any such required consent, authorization, approval or waiver, or any release, substitution, novation or amendment required to sell, transfer, assign, convey and deliver any such Nonassignable Authorization or Permit to Buyer and in no event will Buyer be required to pay any additional consideration therefor. Once such consent, authorization, approval, waiver, release, substitution or amendment is obtained, Seller or the City shall sell, transfer, assign, convey and deliver to Buyer the relevant Authorization or Permit to which such consent, authorization, approval, waiver, release, substitution or amendment relates for no additional consideration. Any applicable sales, transfer and other similar Taxes in connection with such sale, transfer, assignment, conveyance and delivery shall be paid one-half by Buyer and one-half by Seller.

(b) Until such time as a Nonassignable Authorization or Permit is transferred to Buyer pursuant to this Article II, Buyer Seller, or the City shall cooperate in any commercially reasonable and economically feasible arrangements (such as co-permitting, subleasing, sublicensing or subcontracting) to provide to the Parties the economic and, to the extent permitted under applicable Law, operational equivalent of the transfer of such Nonassignable Authorization or Permit at the Closing and the performance by Buyer of its obligations with respect thereto ("**Operational Arrangement**" or "**Operational Arrangements**"), and so long as Seller or the City transfers and turns over all economic and beneficial rights with respect to each such Nonassignable Authorization or Permit, Buyer shall, to the extent permitted under applicable Law and the terms of any applicable Authorization or Permit that constitutes a Nonassignable Authorization or Permit, as co-permittee, designee, agent, contractor, subcontractor, or operator for Seller or the City, pay, perform and discharge the Liabilities and obligations of Seller or the City thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would constitute Assumed Liabilities if the applicable consent or approval had been obtained on or prior to the Closing Date and such Nonassignable Authorization or Permit had been assigned to Buyer at Closing. To the extent permitted under applicable Law, Seller or the City shall, at Seller's or the City's expense, hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Authorization or Permit and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset, Authorization or Permit in connection with any Operational Arrangement under this Article II. For purposes of Article X and Article XI herein, the establishment of an Operational Arrangement on or prior to the Closing Date between the Parties under this Section 2.06(b) regarding any Authorization or Permit

shall, to the extent applicable, satisfy the conditions set forth in Sections 10.01(b) and 11.01(c) with respect to such Authorization or Permit.

(c) If, following the Effective Date and prior to the Closing, Buyer identifies any authorization or permit to which Seller is a party which is not identified on Schedule 4.14 as an Authorization or Permit as of the date hereof, and Buyer reasonably determines such authorization or permit is necessary to the operation of the System, Buyer shall give notice of such determination to Seller and Seller shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.14 identifying such authorization or permit, and such authorization or permit shall thereafter constitute and be deemed an Authorization or Permit for all purposes hereunder.

(d) In the event that, during the twelve (12) month period following the Closing, Buyer identifies any authorization or permit to which Seller or the City was a party as of the Closing and which (i) was not set forth on or properly identified on Schedule 4.14 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary to the operation of the System, Seller or the City shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such authorization or permit to Buyer for no additional consideration, and upon such assignment, such authorization or permit shall be deemed an Authorization or Permit for all purposes hereunder.

Section 2.07 Certain Transfers; Assignment of Contracts.

(a) Notwithstanding anything to the contrary in this Agreement, and subject to the provisions of this Section 2.07(a) and Section 2.07(b), to the extent that the sale, transfer, assignment, conveyance and delivery, or attempted sale, transfer, assignment, conveyance and delivery, to Buyer of any Assigned Contract or other Acquired Asset would result in a violation of applicable Law, or would require the consent, authorization, approval or waiver of any Person (other than the Parties hereto), including any Governmental Authority, and such consent, authorization, approval or waiver shall not have been obtained prior to the Closing, this Agreement shall not constitute a sale, transfer, assignment, conveyance and delivery, or an attempted sale, transfer, assignment, conveyance and delivery, thereof (any such Acquired Asset, a "**Nonassignable Asset**"). Following the Closing, the City and Buyer shall use commercially reasonable efforts (at the cost and expense of the Party that is responsible for compliance with such Law or obtaining such consent, authorization, approval or waiver), and shall cooperate with each other, to obtain any such required consent, authorization, approval or waiver, or any release, substitution, novation or amendment required to sell, transfer, assign, convey and deliver any such Nonassignable Asset to Buyer. Once such consent, authorization, approval, waiver, release, substitution or amendment is obtained, Seller shall sell, transfer, assign, convey and deliver to Buyer the relevant Acquired Asset to which such consent, authorization, approval, waiver, release, substitution or amendment relates for no additional consideration. Any applicable sales, transfer and other similar Taxes in connection with such sale, transfer, assignment, conveyance and delivery shall be paid one-half by Buyer and one-half by Seller.

(b) Until such time as a Nonassignable Asset is transferred to Buyer pursuant to this Article II, Buyer, the City, and Seller shall cooperate in any commercially reasonable and economically feasible arrangements (such as subleasing, sublicensing or subcontracting) to provide to the Parties the economic and, to the extent permitted under applicable Law, operational equivalent of the transfer of such Nonassignable Asset to Buyer at the Closing and the performance by Buyer of its obligations with

respect thereto, and so long as Seller or the City transfers and turns over all economic and beneficial rights with respect to each such Nonassignable Asset, Buyer shall, to the extent permitted under applicable Law and the terms of any applicable contract that constitutes a Nonassignable Asset, as agent or subcontractor for Seller or the City, pay, perform and discharge the Liabilities and obligations of Seller thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would constitute Assumed Liabilities if the applicable consent or approval had been obtained on or prior to the Closing Date and such Nonassignable Asset had been assigned to Buyer at Closing. To the extent permitted under applicable Law, Seller or the City shall, at Seller's or the City's expense, hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Asset and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset in connection with the arrangements under this Article II.

(c) If, following the Effective Date and prior to the Closing, Buyer identifies any contract to which Seller or the City is a party which is not identified on Schedule 4.15 as an Assigned Contract as of the Effective Date, and Buyer reasonably determines such contract is necessary to the operation of the System, Buyer shall give notice of such determination to Seller or the City and Seller or the City shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.15 identifying such contract, and such contract shall thereafter constitute and be deemed an Assigned Contract for all purposes hereunder.

(d) In the event that, during the twelve (12) month period following the Closing, Buyer identifies any contract to which Seller or the City was a party as of the Closing and which (i) was not set forth on or properly identified on Schedule 4.15 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary to the operation of the System, Seller or the City shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such contract to Buyer for no additional consideration, and upon such assignment, such contract shall be deemed an Assigned Contract for all purposes hereunder.

ARTICLE III.

PURCHASE PRICE

Section 3.01 Purchase Price; Agreement Proposal Security.

(a) **Purchase Price for the Assets; Adjustment for City Deposit**. Subject to the terms and conditions of this Agreement, the purchase price ("**Purchase Price**") for the Acquired Assets shall be (i) $235,000,000, *plus* (ii) the Average Daily AR Payment. The Purchase Price shall be delivered as follows:

(i) Within 60 days of the Effective Date, Buyer shall deposit Twenty Million Dollars ($20,000,000) of the Purchase Price, payable to the City in immediately available funds ("**City Deposit**"), subject to Sections 4.03, 6.06, 9.05 and 13.02 and secured by the City with a tax and revenue anticipation note (the "**Deposit Note**") substantially in the form attached hereto as Exhibit A; and

(ii) the Buyer, upon cancellation of the Deposit Note and return of the same to the City, shall be entitled to deduct from the Purchase Price the City Deposit when paying the Purchase Price to the Seller, which shall be payable directly to Seller on the Closing Date by wire transfer.

(b) **Agreement Proposal Security**. Within 180 days of the date the Agreement Proposal Security was delivered by Buyer, Buyer shall have the option to renew the Agreement Proposal Security for an additional term of 180 days. If the Closing has not yet occurred prior to the expiration of the first renewal term of 180 days, Buyer shall have the option to renew the Agreement Proposal Security for a second additional term of 180 days.

(c) **Use of Fair Market Valuation Process.** Following the execution of this Agreement, Buyer and Seller shall use commercially reasonable efforts to invoke, commence and complete the fair market valuation process set forth in Section 1329 of the Public Utility Code, 66 Pa. C.S. §1329. Without limiting the generality of the foregoing, Buyer and Seller shall each engage a utility valuation expert from the list of such experts maintained by the PaPUC and shall jointly utilize a licensed engineer selected by City for the purposes set forth in Section 1329(a)(4) of the Public Utility Code, 66 Pa. C.S. §1329(a)(4). All costs and expenses associated with the licensed engineer jointly utilized by the parties shall be shared equally between Buyer and the City. Buyer agrees to prosecute an application for approval of the transaction contemplated by this Agreement in accordance with Section 6.06 and Section 10.03.

(d) **Fair Consideration**. The Parties acknowledge and agree that the Purchase Price provided for in this Article III represents fair consideration and reasonable equivalent value for the sale and transfer of the Acquired Assets and the transactions, covenants and agreements set forth in this Agreement, which was agreed upon as the result of an arm's-length good faith competitive bidding process involving the Parties and their respective Representatives and other bidders and their respective Representatives.

Section 3.02 Transfer Taxes. Any and all deed stamps or transfer Taxes which may be due the Commonwealth of Pennsylvania or any political subdivision in connection with the sale, transfer, assignment, conveyance and delivery hereunder of the Acquired Assets to Buyer (collectively, "**Transfer Taxes**"), shall be split equally by Buyer and Seller. The terms hereof shall survive Closing.

ARTICLE IV.

REPRESENTATIONS AND WARRANTIES OF SELLER AND THE CITY

Seller and the City makes only the representations and warranties that are set forth in this Article IV related to the Seller or the City, respectively.

As a material inducement to Buyer to enter into this Agreement and to consummate the transactions contemplated by this Agreement, Seller and City, as applicable represents and warrants, as of the Effective Date and as of the Closing Date (except to the extent any of the following representations and warranties specifically apply to or relate to another date, in which event such representations and warranties shall be true and correct as of such other date), as follows:

Section 4.01 Organization. Seller is a body corporate and politic, duly organized and existing under the Pennsylvania Municipality Authorities Act, 53 Pa. C.S. §§ 5601 *et seq.* The City is a third-class city and political subdivision of the Commonwealth of Pennsylvania.

Section 4.02 Power and Authority. Each of Seller and the City has (i) duly adopted the Authorizing Ordinance authorizing the transactions contemplated herein, which remains in full force and effect, (ii) duly authorized and approved the execution and delivery of this Agreement and (iii) duly authorized and approved the performance by Seller and the City of its respective obligations contained in this Agreement. Seller and the City have all requisite power and authority to own, lease and operate the Acquired Assets and the System and have the power and authority to enter into this Agreement and to do all acts and things and execute and deliver all other documents as are required hereunder to be done, observed or performed by it in accordance with the terms hereof.

Section 4.03 Enforceability. This Agreement has been duly authorized, executed and delivered by Seller and the City and constitutes a valid and legally binding obligation of Seller and the City, enforceable against Seller and the City in accordance with the terms hereof, subject only to applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally and to general principles of equity.

The Deposit Note has been duly authorized and when executed and delivered by the City shall constitute a valid and legally binding obligation of the City, enforceable in accordance with the terms thereof, subject only to applicable bankruptcy, insolvency and similar laws affecting enforceability of the rights of creditors generally and to the general principles of equity.

Section 4.04 No Conflict or Violation. The execution and delivery of this Agreement by Seller and the City, the consummation of the transactions contemplated hereby and the performance by Seller and the City of the terms, conditions and provisions hereof has not and will not contravene or violate or result in a breach of (with or without the giving of notice or lapse of time, or both) or acceleration of any material obligations of Seller and the City under (i) any applicable Law or (ii) any agreement, instrument or document to which Seller is a party or by which it is bound.

Section 4.05 Consents and Approvals. Except as set forth in Schedule 4.05 or as would not have a Material Adverse Effect, there are no consents, waivers, authorizations or approvals of any Governmental Authority, or of any other Person, and each declaration to or filing or registration with any Governmental Authority required in connection with the execution and delivery of this Agreement by Seller or the performance by Seller of its obligations hereunder.

Section 4.06 Undisclosed Liabilities. Except as set forth in Schedule 4.06, there are no material liabilities or obligations of Seller, either accrued, absolute, contingent or otherwise, relating to the Acquired Assets that would be required to be set forth on a balance sheet prepared under accounting principles applicable to municipalities and the Authority, other than liabilities incurred in the ordinary course. All of the Outstanding Indebtedness is set forth on Schedule 4.06 and can be repaid or defeased by Seller or the City and any security interests granted by Seller or the City to secure its obligations pursuant thereto can be extinguished or terminated at or prior to the Closing pursuant to the contractual terms applicable to such Outstanding Indebtedness.

Section 4.07 Absence of Certain Changes or Events. Except as set forth on Schedule 4.07, since December 31, 2019, there has not been any transaction or occurrence that has resulted or is reasonably likely to result in a Material Adverse Effect and Seller and the City have operated and maintained the System since the date of this Agreement in the ordinary course.

Section 4.08 Tax Matters. Except as set forth in Schedule 4.08 (i) Seller and the City have filed all Tax Returns that were required to be filed on or before the Closing Date and timely paid all Taxes that may have been or may be due and payable by Seller on or before the Closing Date, arising

from the ownership or operation of the Acquired Assets or the System on or before the Closing Date; (ii) no Governmental Authority has asserted any claim against Seller or the City for the assessment of any additional liability for Taxes or initiated any action or proceeding which could result in such an assertion; and (iii) Seller and the City have made all withholding of Taxes required to be made under all applicable Laws and regulations, including without limitation, withholding with respect to compensation paid to employees, and the amounts withheld have been properly paid over to the appropriate Governmental Authority. This section does not apply to any Tax matter related to an employee benefit plan or compensation arrangement that is addressed separately in Section 4.11.

Section 4.09 Real Property and Easements. Seller represents that, to its Knowledge, all of the Real Property and Easements held by Seller and used in the operation of the System are set forth on Schedule 4.09 which are to Seller's Knowledge all the Real Property and Easements that are necessary to operate the System. There are no pending condemnation proceedings relating to any of the Real Property and Easements, and, to the Knowledge of Seller, Seller has not received any written threats of any condemnation proceedings. To Seller's Knowledge, Seller has not received any written notices of any violations of any Law from any Governmental Authority with respect to the Real Property and Easements that have not been cured in all material respects. Buyer acknowledges and agrees that, notwithstanding anything to the contrary in this Agreement (i) this Section 4.09 contains all of the representations and warranties of Seller to Buyer with respect to the Real Property and Easements, and no other representation or warranty set forth in this Agreement with respect to the Acquired Assets is intended to apply to the Real Property and Easements, and (ii) to the extent that any of the documents identified on Schedule 4.09 contain rights or interests not relating or applicable to the System, such rights or interests shall not be construed or deemed to be part of the Real Property or Easements.

Section 4.10 Equipment and Machinery. All material Equipment and Machinery included in the Acquired Assets is set forth and otherwise described on Schedule 4.10. Except as set forth in Schedule 4.10, Seller or the City have good title, free and clear of all Liens (other than the Permitted Liens and Liens which are released on or prior to Closing) to the Equipment and Machinery owned by Seller.

Section 4.11 Employee Benefit Plans.

(a) As used in this Section 4.11, the following terms have the meanings set forth below:

"**City's Benefit Obligations**" means all material obligations, arrangements, or practices, whether or not legally enforceable, to provide benefits, other than salary or wages to present or former directors, employees or agents, (other than obligations, arrangements and practices that are City's Plans), that are owed, adopted or followed by the City. City's Benefit Obligations also include consulting agreements under which the compensation paid does not depend upon the amount of service rendered, sabbatical policies, severance payment policies and fringe benefits within the meaning of Code §132.

"**City's Plans**" means each voluntary employees' beneficiary association under Section 501(c)(9) of the Code whose members include any Personnel and any employee benefit plans or any other retirement, profit sharing, stock option, stock bonus, deferred compensation (including any "nonqualified deferred compensation plan" within the meaning of Section 409A of the Code), severance, sick leave or other material plan or arrangement providing benefits to current or former Personnel, in each case, if either currently in effect or terminated within the last six (6) years, to which

the City is a plan sponsor or to which the City otherwise contributes or has contributed within the last six (6) years, or in which the City otherwise participates or has participated within the last six (6) years.

(b) Schedule 4.11(b) contains a true and complete list of all City's Plans and City's Benefit Obligations with respect to Personnel, including amounts owed to current or past employees for severance, unpaid and unused vacation pay or sick leave, or similar obligations. All such City's Plans and City's Benefit Obligations are in full force and effect and are in material compliance both as to form and operation, with applicable provisions of the Code, and any other applicable Laws, and with any applicable collective bargaining agreement. To Seller's Knowledge, no event has occurred which has resulted or is likely to result in the imposition of any liability on the City under the Code or other applicable Law with respect to any City's Plans or City's Benefit Obligations;

(c) Except as set forth in Schedule 4.11(c), with respect to the System, the City does not sponsor, maintain, contribute to, nor is it required to contribute to, any "multiemployer plan" within the meaning of Section 14(f) of the Code, and has no liability of any nature, whether known or unknown, fixed or contingent, with respect to any such multiemployer plan;

(d) Except as set forth on Schedule 4.11(d), City does not sponsor, maintain, contribute to, nor is it required to contribute to, any medical, health, life or other welfare plan or benefits for present or future terminated or retired Personnel or their spouses or dependents, other than as required by COBRA, or any comparable state law, and has no liability of any nature, whether known or unknown, fixed or contingent, with respect to any such post-termination welfare benefits;

(e) The City is and has been in material compliance with the requirements of COBRA and is not subject to any excise tax under Code Section 4980B for the current or any prior taxable year; and

(f) Except as set forth in Schedule 4.11(f), the City has not entered into any severance or similar arrangement with respect to any present or former Personnel that will result in any obligation (absolute or contingent) of Buyer to make any payment to any present or former Personnel following termination of employment, including the termination of employment effected by the transactions contemplated by this Agreement. The consummation of the transactions contemplated by this Agreement will not trigger any severance or other obligation of the City for which Buyer shall have any liability.

Section 4.12 Personnel; Labor Matters.

(a) Schedule 4.12(a) sets forth all collective bargaining agreements and commitments, contracts, agreements, arrangements or understandings (whether written, oral, formal or informal) with Personnel relating to the System to which the City, is a party, including the identification of the parties thereto and the expiration dates.

(b) Except as set forth on Schedule 4.12(b), it shall be solely the City's obligation to pay, or cause to be paid, the Personnel for accrued but unused and unpaid vacation and sick leave awarded or earned during the Personnel's period of City employment at a time either appropriately negotiated or on terms set forth in any contract or agreement and/or as required under by applicable Law.

Section 4.13 Environmental Compliance. Except as set forth in Schedule 4.13 or that otherwise could not be expected to have a Material Adverse Effect, Seller represents:

(a) The System as currently operated by the City and all operations and activities conducted by the City with respect to the System are in compliance in all material respects with all applicable Environmental Requirements.

(b) Seller and the City have generated, used, handled, treated, stored and disposed of all Regulated Materials in (i) compliance in all material respects with all applicable Environmental Requirements and (ii) a manner that has not given, and could not reasonably be anticipated to give, rise to Environmental Liabilities.

(c) Seller and the City have not received notice of any Environmental Claims related to the System that have not been fully and finally resolved, and to the Knowledge of Seller no claims of Environmental Liabilities have been threatened allegedly arising from or relating to the System that have not been fully and finally resolved.

(d) Regulated Materials are not present at, in, or on the System or Acquired Assets, there has been no Release of Regulated Materials at, on or from any part of the System or the Acquired Assets, in each case in a manner that violates any Environmental Requirements or has resulted in, or could reasonably be anticipated to give rise to, Environmental Liabilities.

(e) No Lien or activity use limitation or institutional control has been recorded affecting any Acquired Assets by any Governmental Authority due to either the presence of any Regulated Material on or off the Acquired Assets or a violation of any Environmental Requirement.

(f) There are no operational underground storage tanks on or at any of the Acquired Assets. Any underground storage tanks previously located at the Acquired Assets have been removed or otherwise closed, removed, filled, and/or abandoned in compliance with applicable Environmental Requirements in effect at the time of such closure.

(g) Seller has delivered to Buyer (i) all material environmental site assessments or reasonable and accurate summaries thereof pertaining .to the System, (ii) the written reports of all material compliance audits or compliance assurance reviews prepared within the previous five (5) years or reasonable and accurate summaries thereof relating to compliance with Environmental Requirements by the System, and (iii) reasonable and accurate summaries of, or all material documents pertaining to, any known and unresolved Environmental Liabilities incurred in relation to the System, to the extent possessed by or under the reasonable control of Seller.

Section 4.14 Authorizations and Permits. Seller and the City represent that (i) Schedule 4.14 lists or describes the Authorizations and Permits of Seller or the City that are currently in full force and effect; (ii) except as set forth on Schedule 4.14, Seller or the City have made true and complete copies of all Authorizations and Permits available to Buyer; and (iii) except as set forth on Schedule 4.13, Seller and the City are in compliance in all material respects with all terms, conditions and requirements of all Authorizations and Permits, except in each case where such violation or failure, individually or in the aggregate, would not have a Material Adverse Effect and no proceeding is pending or, to the Knowledge of Seller threatened relating to the revocation or limitation of any of the Authorizations or Permits, other than those revocations or limitations which do not individually or in the aggregate have a Material Adverse Effect.

Section 4.15 System Contracts.

(a) Schedule 4.15 contains a complete and accurate list of all the contracts related to the System.

(b) Seller or the City have made available to Buyer true and complete copies of the Assigned Contracts set forth on Schedule 4.15.

(c) Seller further represents that, to its Knowledge, all of the Assigned Contracts specified in Schedule 4.15 are in full force and effect. To the Knowledge of Seller, Seller has not, nor has any other party thereto, materially breached any material provision of or materially defaulted under the material terms of, nor does any condition exist which, with notice or lapse of time, or both, would cause Seller, or to the Knowledge of Seller, any other party, to be in material default under the terms of any Assigned Contract.

Section 4.16 Compliance with Law; Litigation.

(a) Except as disclosed to Buyer in writing or as could not reasonably be expected to result in a Material Adverse Effect to the Knowledge of Seller, Seller has operated and is operating the System in compliance, in all material respects, with all applicable Laws, Authorizations and Permits and is not in breach of any applicable Law, Authorization or Permit. Except as could not reasonably be expected to result in a Material Adverse Effect, when considered singularly or collectively, there are no Authorizations or Permits from any Governmental Authority necessary for the operation of the System as currently being operated except for those Authorizations and Permits listed in Schedule 4.14.

(b) Except as set forth in Schedule 4.13 or disclosed to Buyer prior to the Effective Date, there are no facts, circumstances, conditions or occurrences regarding the System that could reasonably be expected to give rise to any Environmental Claims or enforcement actions by any Governmental Authority that could reasonably be expected to have a Material Adverse Effect, and there are no past, pending or threatened Environmental Claims or enforcement actions by any Governmental Authority against Seller that individually or in the aggregate could reasonably be expected to have a Material Adverse Effect.

(c) There is no action, suit or proceeding, at law or in equity, or before or by any Governmental Authority, pending nor, to the Knowledge of Seller, threatened against Seller prior to or at the Closing Effective Time that could reasonably be expected to have a Material Adverse Effect. As of the date of this Agreement, there is no action, suit or proceeding, at Law or in equity, or before or by any Governmental Authority, pending nor, to the Knowledge of Seller, threatened against Seller which could reasonably be expected to materially and adversely affect the validity or enforceability of this Agreement.

Section 4.17 Broker's and Finder's Fees. Seller and the City represent that no broker, finder, or Person is entitled to any commission or finder's fee by reason of any agreement or action of Seller in connection with this Agreement or the transactions contemplated by this Agreement. Seller and the City agree to pay when due the fees and expenses of their financial, legal, and technical advisors.

Section 4.18 Title to the Acquired Assets; Sufficiency.

(a) Except as set forth on Schedule 4.18, Seller or the City have good and marketable title to, valid leasehold interest in or valid licenses to use, all of the Acquired Assets, free and clear of all Liens, other than Permitted Liens and Liens which will be fully and unconditionally released at or prior to Closing. Except for the Excluded Assets (as disclosed in Section 2.02), the Permitted Liens and any Liens that will be fully and unconditionally released at or prior to Closing, the Acquired Assets are sufficient for, and constitute all the assets, properties, business, goodwill and rights of every kind and description, and services required for, the continued conduct and operation of the System by Buyer in substantially the same manner as currently conducted and operated by Seller and the City. Except for the Excluded Assets (as disclosed in Section 2.02), the Permitted Liens and any Liens that will be fully and unconditionally released at or prior to Closing, the Acquired Assets, taken as a whole, comprise all the assets, properties, business, goodwill and rights of every kind and description used or held for use in, or useful or necessary to the operation of the System as currently operated by Seller and the City.

ARTICLE V.

REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer makes only the representations and warranties which are set forth in this Article V.

As a material inducement to Seller and the City to enter into this Agreement and to consummate the transactions contemplated hereby, Buyer hereby represents and warrants to Seller and the City, as of the Effective Date and as of the Closing Date (except to the extent any of the following representations and warranties specifically apply or relate to another date, in which event such representations and warranties shall be true and correct as of such other date), as follows:

Section 5.01 Organization. Buyer is duly organized, validly existing and in good standing under the laws of the state of its organization.

Section 5.02 Authorization and Validity of Agreement. Buyer has the power and authority to enter into this Agreement and, subject to Governmental Approvals, to do all acts and things and execute and deliver all other documents as are required hereunder to be done, observed or performed by it in accordance with the terms hereof. This Agreement has been duly authorized, executed and delivered by Buyer and constitutes a valid and legally binding obligation of Buyer, enforceable against it in accordance with the terms hereof, subject only to Governmental Approvals, applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally, and general principles of equity.

Section 5.03 No Conflict or Violation. The execution and delivery of this Agreement by Buyer, the consummation of the transactions contemplated hereby and the performance by Buyer of the terms, conditions and provisions hereof has not and will not contravene or violate or result in a breach of (with or without the giving of notice or lapse of time, or both) or acceleration of any material obligations of Buyer under (i) any applicable Law, (ii) any material agreement, instrument or document to which Buyer is a party or by which it is bound or (iii) the articles, bylaws or governing documents of Buyer.

Section 5.04 Consents and Approvals. Except as set forth on Schedule 5.04, there are no consents, waivers, authorizations or approvals of any Governmental Authority, or of any other Person, and each declaration to or filing or registration with any Governmental Authority required in connection with the execution and delivery of this Agreement by Buyer or the performance by Buyer of its obligations hereunder.

Section 5.05 Broker's and Finder's Fees. Buyer represents that no broker, finder or other Person is entitled to any commission or finder's fee in connection with this Agreement or the transactions contemplated by this Agreement.

Section 5.06 Financial Wherewithal. Buyer represents that upon Closing, and after giving effect to the consummation of the transactions contemplated hereby and the incurrence of any indebtedness in connection therewith, Buyer will have the financial ability and will have sufficient working capital for its needs and reasonably anticipated needs to operate the System as a certificated public utility system regulated by the PaPUC authorized, among things, to provide wastewater utility services to residential, commercial, industrial, and municipal customers of the System.

Section 5.07 Sufficient Funds. Buyer represents that Buyer will have sufficient funds available at Closing to consummate the transactions contemplated by this Agreement, to pay the Purchase Price in accordance with Article III and expenses related to the transactions contemplated by this Agreement, and on and after Closing, to generally provide ownership, operation and capital for the operations and capital needs of the System following the Closing, and assuring that the customers of the System will receive safe, adequate and reliable wastewater service equal to or better than such customers would have received without the transactions contemplated by this Agreement and at all times consistent with the provisions of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 101 *et seq.,* and applicable Law.

Section 5.08 Independent Decision. Except as expressly set forth in this Agreement, or any of the related agreements, Buyer acknowledges that (a) neither Seller, City nor any other Person has made any representation or warranty, express or implied, as to the accuracy or completeness of the System or information provided to Buyer, and (b) neither Seller, City nor any other Person shall have or be subject to any liability to Buyer or any other Person resulting from the distribution to Buyer, or Buyer use of, any information regarding the System or Acquired Assets that has been furnished or made available to Buyer and its Representatives. Buyer acknowledges that other than as expressly set forth in this Agreement or any related agreement, Seller expressly disclaims any warranty of income potential, operating expenses, costs of operation, or uses or fitness for a particular purpose of any Acquired Assets or the System.

Section 5.09 Scheduled Matters. Buyer acknowledges that: (a) the inclusion of any matter on any Schedule shall not necessarily be deemed an admission by Seller or City that such listed matter is material or that such listed matter has or could have a material adverse effect or constitutes a material liability with respect to the Acquired Assets; (b) matters reflected in the Schedules are not necessarily limited to matters required by this Agreement to be reflected in such Schedules; and (c) such additional matters are set forth for informational purposes only and do not necessarily include other matters of a similar nature.

Section 5.10 Independent Investigation. Buyer acknowledges that it has conducted an independent investigation of the financial condition, assets, liabilities, properties and projected capital needs and operations of the System in making its determination as to the propriety of the transaction

contemplated by this Agreement and, in entering into this Agreement and related agreements, has relied solely on the results of its investigation and on the representations and warranties of Seller and City expressly contained in Article IV of this Agreement.

Section 5.11 Litigation. Buyer is not in breach of any applicable Law that could have a Material Adverse Effect on the operations of the System, Buyer or Buyer's ability, after the Closing, to provide wastewater utility services to residential, commercial, industrial, and municipal customers of the System. Neither Buyer nor any Affiliate of Buyer is listed on any of the following lists maintained by the Office of Foreign Assets Control of the United States Department of the Treasury, the Bureau of Industry and Security of the United States Department of Commerce or their successors, or on any other list of Persons with which Seller may not do business under applicable Law: the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List and the Debarred List. Except as set forth on Schedule 5.11, there is no action, suit or proceeding, at law or in equity, or before or by any Governmental Authority, pending nor, to the Knowledge of Buyer, threatened against Buyer prior to or at the Closing Effective Time, which will have a material adverse effect on (i) the transactions contemplated by this Agreement or (ii) the validity or enforceability of this Agreement.

ARTICLE VI.

OTHER AGREEMENTS

Section 6.01 Taxes. Except as provided herein (including Section 3.03), Seller or the City shall pay any and all Taxes, if any, arising out of the ownership of the Acquired Assets and out of the operation of the System before the Closing. Notwithstanding the prior sentence, any special assessments on the Real Property incurred on or after the Closing Date, whether or not currently due and payable, shall be paid by Buyer in accordance with their terms.

Section 6.02 Cooperation on Tax Matters. Seller or City shall furnish or cause to be furnished to Buyer, as promptly as practicable, whether before **or** after the Closing Date, such information and assistance relating to the System as is reasonably necessary for the preparation and filing by Buyer of any filings relating to any Tax matters.

Section 6.03 Personnel Matters.

(a) Subject to applicable Law, Buyer shall, or shall cause an Affiliate of Buyer to, offer employment effective on the Closing Date, to the Personnel set forth in Schedule 6.03(a), subject to Buyer's existing standard hiring policies and procedures applicable to new employees, including but not limited to, a criminal background check and drug screening. Prior to employment, Buyer will provide appropriate notification explaining that the wages and benefits offered by Buyer to all Personnel. For Union employees, such notice will be in accordance with the Collective Bargaining Agreement as required by Section 6.03(b)(ii). Schedule 6.03(a) shall not be amended after the date this Agreement is executed without the prior written consent of Buyer, provided, however, that Seller or the City have absolute discretion without the consent of Buyer to fill existing positions as set forth on Schedule 6.03(a) to meet operational requirements. Upon Closing, Buyer shall follow Section 6.03(b)(i) and all applicable federal labor laws regarding the recognition of the Union and negotiate in good faith with the Union as required by federal labor laws.

(b) Effective as of and conditioned upon Closing, Buyer shall (i) recognize the Union as the exclusive bargaining representative for all Union employees; and (ii) adopt the Collective Bargaining Agreement for the Union Employees. Such offers of employment shall consist of the same terms and conditions of employment as set forth in the Collective Bargaining Agreement unless otherwise agreed to by the Union and the Buyer. Buyer shall not give any notice that it is setting initial terms of employment for Union employees that are contrary to the terms of the Collective Bargaining Agreement.

(c) The Personnel who accept such employment and commence employment on the Closing Date, shall be referred to in this Agreement as the "**Transferred Personnel**." Transferred Personnel, who are non-union Personnel, if any, shall be employees-at-will of Buyer.

(d) This Section 6.03 shall be binding upon and inure solely to the benefit of each of the Parties to this Agreement, and nothing in this Section 6.03, express or implied, shall confer upon any other person any rights or remedies of any nature whatsoever under or by reason of this Section. The Parties acknowledge and agree that the terms set forth in this Section 6.03 shall not create any right in any Transferred Personnel or any other person to bring a third-party cause of action against Buyer or the City. Nothing in this Section 6.03(d) is intended to limit the right of any Transferred Personnel to file unfair labor practice charges with the National Labor Relations Board.

Section 6.04 Rates.

(a) Buyer shall implement Seller's wastewater base rates, as set by the City, then in effect at Closing, as reflected on Schedule 6.04(a) (the "**Base Rate**") as Buyer's effective wastewater base rates within the City, provided such rates shall not be lower than those in effect on the date this Agreement is executed. Buyer shall additionally implement monthly billing for all customers within the City at and after Closing. Buyer shall apply, at and after Closing, its then-existing miscellaneous fees and charges, rules and regulations for wastewater service as set forth in its Tariff; provided that Buyer shall be able to implement an industrial pretreatment program and associated fees comparable to Buyer's similar systems as permitted by applicable law. Buyer agrees that Distribution System Improvement Charges, as defined in 66 Pa. C.S. § 1351, shall not be charged to customers on the System at any point prior to the effective date of Buyer's next PaPUC-approved base rate increase.

(b) Buyer shall have no obligation to fulfill or maintain any agreements or other understandings for the provision of free or otherwise subsidized or discounted services to any party.

(c) Buyer shall, subject to PaPUC approval in a future base rate proceeding, maintain base rates for System customers for a minimum period of three (3) years from the Closing Date.

(d) The rate provisions of this Section 6.04 shall be part of and subject to the requested PaPUC Governmental Approval.

Section 6.05 Buyer Taxpayer. From and after the Closing Date, Buyer acknowledges that, upon conveyance of the Acquired Assets to Buyer, Buyer will be subject to Taxes arising out of ownership of the Acquired Assets, which shall be paid by Buyer.

Section 6.06 PaPUC Governmental Approval. Promptly after the Effective Date, Buyer covenants and agrees to timely initiate and faithfully prosecute the necessary proceedings to obtain from the PaPUC (i) the issuance of certificates of public convenience to Buyer to provide wastewater

services as necessary to operate the System; (ii) the approval of the acquisition of the System by Buyer under terms and conditions that are reasonably acceptable to Seller, City and Buyer; and (iii) the issuance of certificates of filing or other evidence of approval for contracts between Buyer and municipal corporations related to the acquisition of the System. Nothing contained herein shall be construed to limit or prevent Buyer from making arguments to the Commission for separate approval of the Deposit Note, regardless of the status of approval of this Agreement. Seller shall cooperate with and assist Buyer in proceedings before the PaPUC. Buyer, Seller and City hereby agree that the procedures for determining fair market value of the System and Acquired Assets outlined in 66 Pa. C.S. § 1329(a) shall be utilized and filed with the PaPUC as contemplated by 66 Pa. C.S. § 1329(c).

Section 6.07 Remedies for Breach of Article VI Agreements. In the event of a breach by Buyer of any of the covenants and agreements set forth in this Article VI, in addition to all other rights and remedies available at law or in equity, including specific performance and/or injunctive relief, Seller or City shall also be entitled to commence proceedings before the PaPUC seeking enforcement of such covenants and agreements but only to the extent that such covenants and agreements were a condition of the PaPUC Governmental Approval or otherwise within the jurisdiction of the PaPUC.

Section 6.08 Customer Service. Buyer agrees to establish, continue operating or cause the continued operation on Business Days of a customer service center within the City. The customer service center must be staffed by in-person customer service representatives and remain open for walk-in service and telephone service during normal business hours. Normal business hours shall be understood to mean, at minimum, 9:00 a.m. – 5:00 p.m.

Section 6.09 Unscheduled Real Property or Easements. The Parties acknowledge that Seller may own interests in or have the legal right to use or occupy the Real Property or Easements that are necessary or essential to the operation of the System and that are not specifically identified in Schedule 4.09 or Section 2.02 (the "**Unscheduled Real Property or Easements**"). If the Parties discover prior to or after the Closing Date, one or more parcels of Unscheduled Real Property or Easements, the discovering Party shall give written notice of such discovery to the non-discovering Party. In addition to its obligations in Section 2.03, Seller shall convey, assign or otherwise transfer any rights to each parcel of Unscheduled Real Property or Easements in such a manner as to provide Buyer with reasonable assurances that Buyer shall have the right to use or occupy the Unscheduled Real Property or Easements as it was used by Seller as of the Effective Date.

Section 6.10 Act 537 Official Plan Revision. Promptly after the Effective Date, each of Buyer and Seller, in accordance with applicable Laws and Environmental Requirements, including the Pennsylvania Sewage Facilities Act, 35 P.S. § 750.1—750.20a, the regulations codified at 25 Pa. Code Chapter 71, and available guidance from PaDEP, shall use commercially reasonable efforts and cooperate in preparing, submitting, and receiving necessary Governmental Approval from applicable Governmental Authorities, including PaDEP, of a revision or amendment to the Act 537 Official Plan, the cost of which shall be paid by Buyer. Using commercially reasonable efforts, each of Buyer and Seller shall cooperate to obtain the necessary Governmental Approvals of the revision or amendment to the Act 537 Official Plan, but in no event shall one or more Governmental Approvals of, or a Final Order regarding, the revision or amendment to the Act 537 Official Plan be construed or interpreted as a condition precedent to Closing under either Article X or Article XI herein.

Section 6.11 Municipal Industrial Pretreatment Program. The parties acknowledge that, upon Closing, Seller's and the City's obligations to implement the Municipal Industrial Pretreatment Program will cease, and Buyer may implement its own version as may be necessary to ensure continued

compliance with applicable Laws, Environmental Requirements, and the Authorizations and Permits. The parties also acknowledge that there may be a transition period, including after Closing, with respect to the Municipal Industrial Pretreatment Program. Accordingly, before and after Closing, each of Buyer, the City and Seller shall use commercially reasonable efforts to cooperate and facilitate the transition, including, as necessary, obtaining applicable Governmental Approvals to address Environmental Requirements under the Laws and Authorizations and Permits. In no event shall one or more Governmental Approvals of, or a Final Order regarding, the Municipal Industrial Pretreatment Program be construed or interpreted as a condition precedent to Closing under either Article X or Article XI herein or as an obligation of Seller and the City to continue implementing, or participate in implementing, the Municipal Industrial Pretreatment Program.

Section 6.12 Accounts Receivable. The Buyer is entitled to all customer billings with respect to sanitary wastewater services for the period on or after the Closing Effective Time and the Seller and the City are entitled to all such billings for the period before the Closing Effective Time except that Buyer agrees to pay the Seller at Closing an amount equal to the average daily System revenue based on the City's most recent audited financial statement (calculated by taking the total metered revenue collected for the applicable year, divided by 365 and multiplied by the number of days between the final meter reading and Closing) for the period from Seller's final meter read through the Closing Date ("**Average Daily AR Payment**"). Excluding any period for which an Average Daily AR Payment is paid by Buyer, Buyer and Seller agree that payments received for bills rendered by the other will be remitted to the party which billed for sewer service for the period of time for which the payment was received within 30 days after receiving notice from the customer or the billing party.

Section 6.13 Consent Order. Unless EPA indicates in writing that it does not intend to pursue an order or action pursuant to the provisions of Section 309(a) or (b) of the Federal Clean Water Act, 33 U.S.C. § 1319(a)-(b), promptly after the Effective Date, the Seller, Buyer and the City shall use reasonable best efforts to negotiate and enter into a consent order agreement with the EPA, to be effective upon Closing, pursuant to such provisions (the "Consent Order"), in a form reasonably satisfactory to Seller, Buyer and the City, which addresses the alleged violations relating to the System as described in the EPA Notice of Potential Violations and Opportunity to Confer dated December 10, 2020 or related alleged violations subsequently identified in writing by EPA ("Alleged Noncompliance"), and contains the following elements: (1) descriptions of and reasonable implementation schedules for the corrective actions to be taken to address the Alleged Noncompliance; (2) agreement by the Buyer to be responsible for all obligations arising under and compliance with the Consent Order on and after Closing of the transaction; (3) substitution of the Buyer for the Seller and City as respondents under the Consent Order effective upon Closing of the transaction; and (4) a release of the Seller and City from all obligations and liabilities under Consent Order for obligations to be performed or violations occurring on or after Closing of the transaction.

ARTICLE VII.

INDEMNIFICATION

Section 7.01 Survival. All representations and warranties of Seller or City contained in this Agreement or any certificate or other Agreement delivered by Seller or City hereunder or relating to the subject matter of this Agreement shall survive until twelve (12) months following the Closing Date. All representations and warranties of Buyer contained in this Agreement or any certificate or other

agreement delivered by Buyer hereunder or relating to the subject matter of this Agreement shall survive until twelve (12) months following the Closing Date. The covenants, agreements and other obligations of Seller and City contained in this Agreement or any certificate or other agreement delivered by Seller or City hereunder or relating to the subject matter of this Agreement shall survive the Closing until twelve (12) months following the Closing Date or for the shorter period explicitly specified therein, (a) except for such other agreements by Seller or City that explicitly state that they survive for a longer period and (b) except that Buyer may seek specific performance, as its sole and exclusive remedy, for any Acquired Assets not properly conveyed on the Closing Date for a period of five (5) years following the Closing Date. The covenants, agreements and other obligations of Buyer contained in this Agreement or any certificate or other agreement delivered by Buyer hereunder or relating to the subject matter of this Agreement shall survive the Closing indefinitely or for the shorter period explicitly specified therein, except that for such covenants and agreements that survive for such shorter period, breaches thereof within such shorter period shall survive indefinitely or until the latest date permitted by applicable Law. Additionally, notwithstanding anything to the contrary (i) once the survival period or periods described above have ended, the applicable representation, warranty, covenant or agreement shall terminate and be of no further force or effect and (ii) any claim, demand, or cause of action with respect to any breach of such representation, warranty, covenant or agreement must be made or brought, if at all, within the period or periods described above. No Party shall permit its respective Affiliates or Representatives, and shall additionally cause its respective Affiliates and Representatives not to, make or bring any such claim, demand, or cause of action with respect to any such breach of a representation, warranty, covenant or agreement that may not otherwise be made directly by such Party hereunder.

Section 7.02 Indemnification by Seller and City. Subject to the terms and conditions of this Article VII and applicable Law, Seller and City agree to indemnify, defend and hold harmless, Buyer and its successors and Affiliates and their respective employees, officers, directors, trustees and agents (the "**Buyer Indemnified Persons**"), from and against any and all Losses arising from or relating to: (a) any material misrepresentation as to, or any material inaccuracy in, any of the representations and warranties of Seller or City contained in this Agreement or in any exhibit, schedule, certificate or other instrument or document furnished or to be furnished by Seller or City prior to the Closing pursuant to this Agreement; (b) any material breach or material nonfulfillment of any of the covenants or agreements of Seller or City contained in this Agreement or in any exhibit, schedule, certificate or other instrument or document furnished or to be furnished by Seller or City prior to the Closing pursuant to this Agreement; or (c) any Excluded Liability or Excluded Asset.

Section 7.03 Indemnification by Buyer. Subject to the terms and conditions of this Article VII and applicable Law, Buyer agrees to defend, indemnify and hold harmless Seller, City and their respective successors and Affiliates and each of their respective employees, officers, directors and agents (the "**Seller Indemnified Persons**") from and against any and all Losses arising from or relating to: (a) any material misrepresentation as to, or any material inaccuracy in, any of the representations and warranties of Buyer contained in this Agreement or in any exhibit, schedule, certificate or other instrument or document furnished or to be furnished by Buyer pursuant to this Agreement; (b) any material breach of any of the covenants or agreements of Buyer contained in this Agreement or in any exhibit, schedule certificate or other instrument or document furnished or to be furnished by Buyer pursuant to this Agreement; (c) any Assumed Liability, including without limitation any liability related to any claims by any Governmental Authority; (d) Buyer's actions involving Environmental Laws, Regulated Materials or environmental claims on and after the Closing Date; or (e) the ownership, operation or control of the Acquired Assets or the System on and after the Closing Date.

Section 7.04 Indemnification Procedure.

(a) Third-Party Claims. If any Indemnified Party receives notice of the assertion or commencement of any action, suit, claim or other legal proceeding made or brought by any Person who is not a party to this Agreement or an Affiliate of a party to this Agreement or a Representative of the foregoing (a "**Third-Party Claim**") against such Indemnified Party with respect to which the Indemnifying Party may be obligated to provide indemnification under this Agreement, the Indemnified Party shall give the Indemnifying Party prompt written notice thereof. The failure to give such prompt written notice shall not, however, relieve the Indemnifying Party of its indemnification obligations, except and only to the extent that the Indemnifying Party forfeits material rights or material defenses by reason of such failure. Such notice by the Indemnified Party shall describe the Third-Party Claim in reasonable detail and shall indicate the estimated amount, if reasonably practicable, of the Loss that has been or may be sustained by the Indemnified Party. The Indemnifying Party shall have the right to participate in, or by giving written notice to the Indemnified Party (and subject to the other requirements herein) to assume the defense of any Third-Party Claim at the Indemnifying Party's expense and by the Indemnifying Party's own counsel (which counsel shall be reasonably acceptable to the indemnified Party), so long as (i) the indemnifying Party notifies the Indemnified Party, within ten (10) Business Days after the Indemnified Party has given notice of the Third-Party Claim to the Indemnifying Party (or by such earlier date as may be necessary under applicable procedural rules in order to file a timely appearance and response) that the Indemnifying Party is assuming the defense of such Third-Party Claim, *provided,* that if the Indemnifying Party assumes control of such defense it must first agree and acknowledge in such notice that the Indemnifying Party is fully responsible (with no reservation of any rights other than the right to be subrogated to the rights of the Indemnified Party) for all Losses relating to such Third-Party Claim, (ii) the Indemnifying Party conducts the defense of the Third-Party Claim actively and diligently and at its own cost and expense, and (iii) the Third-Party Claim (A) does not involve injunctive relief, specific performance or other similar equitable relief, any claim in respect of Taxes, any Governmental Authority, any criminal allegations, or any potential damage to the goodwill, reputation or overriding commercial interests of Buyer or its Affiliates, (B) is not one in which the Indemnifying Party is also a party and joint representation would be inappropriate or there may be legal defenses available to the Indemnified Party which are different from or additional to those available to the Indemnifying Party, or (C) does not involve a claim which, upon petition by the Indemnified Party, the appropriate court rules that the Indemnifying Party failed or is failing to vigorously prosecute or defend. The Indemnified Party shall reasonably cooperate in good faith in such defense. In the event that the Indemnifying Party assumes the defense of any Third-Party Claim, subject to Section 7.04(b), it shall have the right to take such action as it deems necessary to avoid, dispute, defend, appeal or make counterclaims pertaining to any such Third-Party Claim in the name and on behalf of the Indemnified Party. The Indemnified Party shall have the right, at its own cost and expense, to participate in the defense of any Third-Party Claim with counsel selected by it subject to the Indemnifying Party's right to control the defense thereof. If the Indemnifying Party elects not to compromise or defend such Third-Party Claim or fails to promptly notify the Indemnified Party in writing of its election to defend as provided in this Agreement, the Indemnified Party may, subject to Section 7.04(b), pay, compromise, defend such Third-Party Claim and seek indemnification for any and all Losses based upon, arising from or relating to such Third-Party Claim. Seller, City and Buyer shall reasonably and in good faith cooperate with each other in all reasonable respects in connection with the defense of any Third-Party Claim, including making available records relating to such Third-Party Claim and furnishing, without expense (other than reimbursement of actual out-of-pocket expenses) to the defending party, management employees of the non-defending party as may be reasonably necessary for the preparation of the defense of such Third-Party Claim.

(b) Settlement of Third-Party Claims. Notwithstanding any other provision of this Agreement, the Indemnifying Party shall not enter into settlement of any Third-Party Claim without the prior written consent of the Indemnified Party (which consent shall not be unreasonably withheld or delayed), except as provided in this Section 7.04(b). If a firm offer is made to settle a Third-Party Claim without leading to liability or the creation of a financial or other obligation on the part of the Indemnified Party and provides, in customary form, for the unconditional release of each Indemnified Party from all liabilities and obligations in connection with such Third-Party Claim and the Indemnifying Party desires to accept and agree to such offer, the Indemnifying Party shall give prompt written notice to that effect to the Indemnified Party. If the Indemnified Party fails to consent to such firm offer within fifteen (l5) days after its receipt of such notice, the Indemnified Party may continue to contest or defend such Third-Party Claim and, in such event, the maximum liability of the Indemnifying Party as to such Third-Party Claim shall not exceed the amount of such settlement offer. If the Indemnified Party fails to consent to such firm offer and also fails to assume defense of such Third-Party Claim, the Indemnifying Party may settle the Third-Party Claim upon the terms set forth in such firm offer to settle such Third-Party Claim. If the Indemnified Party has assumed the defense pursuant to Section 7.04(a), it shall not agree to any settlement without the written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

(c) Direct Claims. Any claim by an Indemnified Party with respect to any Loss which does not arise or result from a Third-Party Claim (a "**Direct Claim**") shall be asserted by the Indemnified Party giving the Indemnifying Party prompt written notice thereof. The failure to give such prompt written notice shall not, however, relieve the Indemnifying Party of its indemnification obligations, except and only to the extent that the Indemnifying Party forfeits material rights or material defenses by reason of such failure. Such notice by the Indemnified Party shall describe the Direct Claim in reasonable detail and shall indicate the estimated amount, if reasonably practicable, of the Losses that have been or may be sustained by the Indemnified Party. The Indemnifying Party shall have thirty (30) days after its receipt of such notice to respond in writing to such Direct Claim. During such thirty (30) day period, the Indemnified Party shall reasonably cooperate and assist the Indemnifying Party in determining the validity and amount of such Direct Claim. If the Indemnifying Party does not so respond within such thirty (30) day period, by delivery of written notice disputing the basis or amount of the Direct Claim, the Indemnifying Party shall be deemed to have rejected such claim, in which case the Indemnified Party shall be free to pursue such remedies as may be available to the Indemnified Party on the terms and subject to the provisions of this Agreement. If the Indemnifying Party has timely disputed its indemnity obligation for any Losses with respect to such Direct Claim, the Parties shall proceed in good faith to negotiate a resolution of such dispute and, if not resolved through negotiations, such dispute shall be resolved by litigation in an appropriate court of jurisdiction determined pursuant to this Agreement.

Section 7.05 Limitations on Indemnification Obligations.

(a) Subject to the other limitations contained in this Section 7.05, neither Buyer nor Buyer Indemnified Persons shall be entitled to indemnification pursuant to Section 7.02 unless the aggregate amount of Losses incurred by Buyer and Buyer Indemnified Persons under this Agreement exceeds 1% of the Purchase Price in the aggregate (the "**Threshold Amount**"), in which case Seller or City shall then be liable for Losses in excess of the Threshold Amount; *provided, however,* that the foregoing limitations contained in this Section 7.05(a) shall not apply to any claims for indemnification based on fraud, intentional misrepresentation or willful misconduct.

(b) Subject to the other limitations contained in this Section 7.05 neither Seller, City nor Seller Indemnified Persons shall be entitled to indemnification pursuant to Section 7.03(a) unless the aggregate amount of Losses incurred by Seller, City and Seller Indemnified Persons under this Agreement exceeds the Threshold Amount, in which case Buyer shall then be liable for Losses in excess of the Threshold Amount; *provided, however,* that the foregoing limitations contained in this Section 7.05(a) shall not apply to any claims for indemnification based on fraud, intentional misrepresentation or willful misconduct.

(c) Except in the case of fraud, intentional misrepresentation or willful misconduct (for which all applicable legal and equitable remedies will be available to Buyer), Buyer Indemnified Parties shall only be entitled to assert claims under Section 7.02 up to the aggregate amount of 5% of the Purchase Price (the "**Liability Cap**"), which shall represent the sole and exclusive remedy of Buyer and the other Buyer Indemnified Parties for any such claims under Section 7.02.

(d) Payments by an Indemnifying Party pursuant to Section 7.02 or Section 7.03 in respect of any Loss shall be limited to the amount of any liability or damage that remains after deducting therefrom any insurance proceeds actually received from a third party insurer and any indemnity, contribution or other similar payment received from a third party insurer by the Indemnified Party in respect of any such claim. The Indemnified Party shall use its commercially reasonable efforts to recover under insurance policies or indemnity, contribution or other similar agreements for any Losses prior to seeking indemnification under this Agreement.

(e) Payments by an Indemnifying Party pursuant to Section 7.02 or Section 7.03 in respect of any Loss shall be reduced by an amount equal to any Tax benefit realized or reasonably expected to be realized as a result of such Loss by the Indemnified Party.

(f) Each Indemnified Party shall take, and cause its Affiliates to take, all reasonable steps to mitigate any Loss in accordance with applicable law.

(g) Subject to the provisions of Sections 3.01 and 14.11 and any other provisions for specific performance, the Parties acknowledge and agree that their sole and exclusive remedy with respect to any and all claims for any breach of any representation, warranty, covenant, agreement or obligation set forth herein or otherwise relating to the subject matter of this Agreement, unless such claims are based on fraud, intentional misrepresentation or willful misconduct, shall be pursuant to the indemnification provisions set forth in this Article VII. In furtherance of the foregoing, each Party hereby waives, to the fullest extent permitted under Law, any and all rights, claims and causes of action for any breach of any representation, warranty, covenant, agreement or obligation set forth herein or otherwise relating to the subject matter of this Agreement, it may have against the other Party hereto and their Affiliates and each of their respective Representatives arising under or based upon any Law, except pursuant to the indemnification provisions set forth in this Article VII or unless such claims or causes of action allege fraud, intentional misrepresentation or willful misconduct. Nothing in this Section 7.05(g) shall limit any Person's right to seek and obtain specific performance to which such Person shall be entitled pursuant to this Agreement.

Section 7.06 Knowledge of Breach. Except to the extent any facts, circumstances or events are inconsistent with any Seller representation in this Agreement, Seller and City shall not be liable to Buyer, including under this Article VII, for any Losses based upon or arising out of any facts, circumstances or events if such fact, circumstance or event was made available to Buyer prior to Closing in a document provided in the dataroom hosted by McNees Wallace & Nurick, LLC pursuant

to the Request for Proposals dated July 10, 2020, or if Buyer had Knowledge of such fact, circumstance or event, in each case prior to the Closing.

ARTICLE VIII.

PRE-CLOSING COVENANTS OF SELLER

Section 8.01 Operation of the System. Except as otherwise expressly permitted by this Agreement, as required by applicable Law or with the prior written consent of Buyer (which consent shall not be unreasonably withheld, delayed or conditioned), from the Effective Date until the Closing, Seller or City shall (i) operate and manage the System only in the ordinary course of business in accordance with past practices and procedures, (ii) comply in all material respects with all applicable Laws and Authorizations and Permits, and (iii) use commercially reasonable efforts to maintain and preserve intact the business and assets of the System and preserve the rights, franchises, goodwill and relationships of Seller and the City and the System and their customers, lenders, suppliers, regulators and others having business relationships with Seller, the City, and the System.

Section 8.02 Negative Covenants of Seller. Except as otherwise contemplated by this Agreement, beginning on the date of this Agreement and prior to the Closing, Seller shall not without the prior written approval of Buyer, do or agree to do any of the following in connection with Seller's operation of the Acquired Assets:

(a) Dispositions. Sell, assign, lease or otherwise transfer or dispose of any Acquired Assets outside of the ordinary course of business;

(b) Contracts. Enter into any material Contracts relating to the Acquired Assets or the System or incur any material obligation or liability (contingent or absolute) relating exclusively to the System outside of the ordinary course of business;

(c) Actions Affecting Licenses, Other Authorizations. Take any action outside of the ordinary course of business that invalidates or makes unenforceable any material Authorizations and Permits; and

(d) Encumbrances. Allow any Lien (other than a Permitted Lien) to be placed on any of the Acquired Assets.

Section 8.03 Cooperation. Seller and City shall reasonably cooperate with Buyer and its employees, attorneys, accountants and other agents and, generally, act in reasonably good faith to timely effectuate the purposes of this Agreement and the consummation of the transactions contemplated by this Agreement.

Section 8.04 Supplements and Updates. Seller or City shall promptly deliver to Buyer any supplemental information updating the Schedules or the information set forth in the representations and warranties set forth in Article IV of this Agreement so that such representations and warranties as supplemented by such information will be true and correct as of the Closing Date (or such other date as provided in such representations and warranties) as if then made. At least three (3) Business Days prior to the Closing Date, Seller and City shall advise Buyer of any facts which would constitute a breach of a representation or warranty as of the date made or a default in a covenant contained herein. In such 3-Business Day period, the only remedy available to Buyer based on such supplemental or

updated information shall be to terminate the Agreement pursuant to the terms of Section 13.01 and the other terms and provisions of this Agreement, and if not so terminated and the Closing occurs, Seller and City shall have no liability whatsoever to Buyer based on such supplemental or updated information or the breach or default that had been caused until such supplemental or updated information was provided.

Section 8.05 Governmental Approvals. Promptly after the execution of this Agreement, or as required by Law, except as provided in Section 6.06 or otherwise expressly provided herein, Seller or City shall file all applications and reports that are required to be filed by Seller or City with any Governmental Authority as provided on Schedule 4.05. Seller and City shall also promptly provide all information that any Governmental Authority may require in connection with any such application or report. Seller and City shall use its commercially reasonable efforts to obtain each consent, waiver, authorization or approval of any kind from any Person in connection with the transactions contemplated by this Agreement. All authorizations of any Governmental Authority necessary to consummate the transactions contemplated by this Agreement shall have been obtained in form and content reasonably satisfactory to Seller and City prior to Closing. In the event a party to the PaPUC proceeding appeals PaPUC approval of the transaction, Buyer, Seller and City will work in good faith to determine whether to consummate the transaction before the appeal process has concluded. If the parties cannot agree in good faith, the transaction will not consummate until after the appeal process has concluded.

Section 8.06 Bond Defeasance. No later than thirty (30) days prior to the Closing Date, the Board shall have approved, subject to and conditioned upon a successful Closing: (i)(A) the defeasance and redemption of any outstanding bonds issued by Seller on the System included in Outstanding Indebtedness and (B) the discharge of any other outstanding debt issued to Seller and payable to any current lender and (ii) the transfer to Buyer or for its benefit of related funds held in any construction fund or account under any indenture(s) being held by Seller or any lender to Seller on any outstanding debt (it being understood that any debt service funds or debt service reserve funds will be applied to the defeasance, redemption and discharge of outstanding debt).

ARTICLE IX.

PRE-CLOSING COVENANTS OF BUYER

Buyer covenants and agrees to comply with the following provisions:

Section 9.01 Actions Before the Closing Date. Buyer shall not take any action which shall cause it to be in breach of any representation, warranty, covenant or agreement contained in this Agreement or cause it to be unable to perform in any material respect its obligations hereunder, and Buyer shall use its best efforts to perform and satisfy all conditions to Closing to be performed or satisfied by Buyer under this Agreement, including action necessary to obtain all consents and approvals of third parties required to be obtained by Buyer to effect the transactions contemplated by this Agreement.

Section 9.02 Governmental Approvals. Promptly after the execution of this Agreement, or as required by Law, except as otherwise expressly provided herein, Buyer shall file all applications and reports which are required to be filed by Buyer with any Governmental Authority as provided on Schedule 5.04. Buyer shall also promptly provide all information that any Governmental Authority

may reasonably require in connection with any such application or report. Buyer shall use all commercially reasonable efforts to obtain all required consents and approvals of any kind from any person in connection with the transactions contemplated hereby.

Section 9.03 Cooperation. Buyer shall reasonably cooperate with Seller and the City and their employees, attorneys, accountants and other agents and, generally, do such other acts and things in good faith as may be reasonable to timely effectuate the purposes of this Agreement and the consummation of the transactions contemplated in accordance with the provisions of this Agreement.

Section 9.04 Supplements and Updates. Buyer shall promptly deliver to Seller any supplemental information updating the information set forth in the representations and warranties set forth in Article V of this Agreement so that such representations and warranties as supplemented by such information will be true and correct as of the Closing Date (or such other date as provided in such representations and warranties) as if then made. At least three (3) Business Days prior to the Closing Date, Buyer shall advise Seller of any facts which would constitute a breach of a representation or warranty as of the date made or a default in a covenant contained herein.

Section 9.05 City Deposit. Buyer shall deliver to City the City Deposit, and the City shall deliver to the Buyer the executed Deposit Note and evidence of the filing with the Pennsylvania Department and Community and Economic Development pursuant to Section 8128 of the Local Government Unit Debt Act, 53 Pa. C.S. § 8001 *et seq*., as amended, no later than 60 days after the execution of this Agreement.

ARTICLE X.

CONDITIONS PRECEDENT TO OBLIGATIONS OF SELLER

The obligation of Seller to consummate the transactions provided for in this Agreement is subject to the satisfaction, at or before the Closing, of the following conditions, any one or more of which may be waived in writing by Seller in its sole discretion:

Section 10.01 Consents and Approvals.

(a) Receipt of all required material, non-governmental third-party consents and any other approvals necessary to consummate the transactions contemplated by this Agreement set forth in Schedule 10.01(a); and

(b) Except as provided in Sections 2.06 and 6.11 herein, receipt of any required environmental and other Governmental Approvals required for transfer and operation of the System by Buyer, with terms and conditions reasonably acceptable to Seller, including without limitation all required EPA and PaDEP approvals and all such Authorizations and Permits and Governmental Approvals shall be final (and not subject to any appeal and any applicable appeal period having expired).

Section 10.02 Representations and Warranties of Buyer. The representations and warranties made by Buyer in Article V that are (a) not qualified by materiality or Material Adverse Effect shall be true and correct in all material respects on and as of the Closing Date (except for representations or warranties that speak of a specific date or time other than the Closing Date which

shall be true and correct in all material respects as of such specified date) and (b) qualified by materiality or Material Adverse Effect shall be true and correct in all respects on and as of the Closing Date (except for representations or warranties that speak of a specific date or time other than the Closing Date which shall be true and correct in all respects as of such specified date), and Seller shall have received a certificate to the effect of the foregoing from a duly authorized officer of Buyer dated as of the Closing Date.

Section 10.03 PaPUC Governmental Approval. Consistent with Section 6.06 herein, PaPUC shall have issued a Final Order approving the acquisition of the System under terms and conditions that are reasonably acceptable to Seller, City and Buyer. In the event a party to the PaPUC proceeding appeals PaPUC authorization of the transaction, Buyer, Seller and City will work in good faith to determine whether to consummate the transaction before the appeal process has concluded. If the parties cannot agree in good faith, the transaction will not consummate until after the appeal process has concluded.

Section 10.04 No Injunctions. Neither Seller nor Buyer shall be subject to any injunction, preliminary restraining order or other similar decree of a court of competent jurisdiction prohibiting the consummation of the transactions contemplated by this Agreement.

Section 10.05 Performance of the Obligations of Buyer. Buyer shall have performed in all material respects all obligations required under this Agreement to be performed by Buyer on or before the Closing Date, and Seller shall have received a certificate to that effect from Buyer dated the Closing Date.

Section 10.06 Deliveries by Buyer. Buyer shall have made delivery to Seller of the documents and items specified in Section 12.03 herein.

Section 10.07 No Material Adverse Effect. There shall not have occurred any event or condition which gives rise to a Material Adverse Effect with respect to the Acquired Assets or the System.

ARTICLE XI.

CONDITIONS PRECEDENT TO OBLIGATIONS OF BUYER

The obligation of Buyer to consummate the transactions provided for in this Agreement is subject to the satisfaction, at or before the Closing, of the following conditions, any one or more of which may be waived in writing by Buyer in its sole discretion:

Section 11.01 Consents and Approvals.

(a) Receipt of all required material, non-governmental third-party consents and any other approvals necessary or advisable to consummate the transactions contemplated by this Agreement set forth in Schedule 11.01(a); and

(b) Approval, subject to and conditioned upon a successful Closing, by the Board for: (i)(A) defeasance and redemption of any outstanding bonds issued by on the System included in the Outstanding Indebtedness and (B) discharge of any other outstanding debt issued to Seller and payable

to any current lender and (ii) applying any funds held in any construction fund or account under any indenture(s) being held by Seller or any lender to Seller on any outstanding debt (it being understood that any debt service funds or debt service reserve funds will be applied to the defeasance, redemption and discharge of outstanding debt); and

(c) Except as provided in Sections 2.06 and 6.11 herein, receipt of any required environmental and other Governmental Approvals required for transfer and operation of the System by Buyer, with terms and conditions reasonably acceptable to Buyer, including without limitation all required PaPUC, EPA and PaDEP approvals and all such Authorizations and Permits and Governmental Approvals shall be final (and not subject to any appeal and any applicable appeal period having expired), provided however, that the inability under Law and/or any Environmental Requirements to transfer one or more Authorizations or Permits and/or any requirement under any Environmental Requirement or Law that Buyer apply for and obtain additional authorizations or permits to continue operation of the System by Buyer shall not constitute conditions precedent to Buyer's obligation to consummate the transactions provided for in this Agreement.

Section 11.02 Representations and Warranties of Seller. The representations and warranties made by Seller or City in Article IV that are (a) not qualified by materiality or Material Adverse Effect shall be true and correct in all material respects on and as of the Closing Date (except for representations or warranties that speak of a specific date or time other than the Closing Date which shall be true and correct in all material respects as of such specified date) and (b) qualified by materiality or Material Adverse Effect shall be true and correct in all respects on and as of the Closing Date (except for representations or warranties that speak of a specific date or time other than the Closing Date which shall be true and correct in all respects as of such specified date), and Buyer shall have received a certificate to the effect of the foregoing from a duly authorized officer of Seller dated as of the Closing Date.

Section 11.03 PaPUC Governmental Approval. Consistent with Section 6.06 herein, PaPUC shall have issued a Final Order approving the acquisition of the System under terms and conditions that are reasonably acceptable to Seller, City and Buyer. In the event a party to the PaPUC proceeding appeals PaPUC authorization of the transaction, Buyer, Seller and City will work in good faith to determine whether to consummate the transaction before the appeal process has concluded. If the parties cannot agree in good faith, the transaction will not consummate until after the appeal process has concluded.

Section 11.04 No Injunctions. Neither Seller nor Buyer shall be subject to any injunction, preliminary restraining order or other similar decree of a court of competent jurisdiction prohibiting the consummation of the transactions contemplated by this Agreement.

Section 11.05 No Material Adverse Effect. From the date this Agreement is executed, there shall not have occurred any event or condition which gives rise or is reasonably expected to give rise to a Material Adverse Effect with respect to the Acquired Assets or the System.

Section 11.06 Deliveries by Seller. Seller shall have made delivery to Buyer of the documents and items specified in Section 12.02 herein.

Section 11.07 Performance of the Obligations of Seller. Seller shall have performed in all material respects all obligations required under this Agreement to be performed by Seller on or before the Closing Date, and Buyer shall have received a certificate to that effect from Seller dated the Closing Date.

Section 11.08 No Liens. Seller shall have good and marketable title to the Acquired Assets, free and clear of all Liens, except Permitted Liens.

Section 11.09 Lease. Seller shall have caused the Lease Agreement that leases the System Assets to the City, dated September 15, 1978, as amended, by and between Seller and the City to be terminated.

ARTICLE XII.

CLOSING

Section 12.01 Closing Date. The Closing shall take place at the offices of McNees Wallace & Nurick LLC, 316 N. George Street York, PA or as otherwise determined by Seller, at 10:00 a.m. eastern standard time on the earliest agreed upon date or within five (5) Business Days after the date upon which all the conditions precedent to Closing described in this Agreement have been fulfilled or waived or at such other place and time, by such other method, or on such other date, as may be mutually agreed to by the Parties (the "**Closing Date**"). The Closing shall be effective at 12:01 a.m., Eastern Standard Time, on the Closing Date (the "**Closing Effective Time**").

Section 12.02 Deliveries by Seller. At the Closing, Seller and City shall have delivered or cause to be delivered to Buyer executed copies of the following agreements, documents and other items:

(a) A Bill of Sale transferring all of the Acquired Assets comprising personal property, in the form attached hereto as Exhibit B;

(b) Possession of the Acquired Assets, including without limitation, the Real Property and the Easements;

(c) A duly executed counterpart to an Assignment and Assumption Agreement with respect to the Assumed Liabilities (the "**Assignment and Assumption Agreement**"), in the form attached hereto as Exhibit C;

(d) The consents to transfer all of the Assigned Contracts and Authorizations and Permits (including Authorizations and Permits issued under any Environmental Requirement), to the extent required hereunder and as set forth in Schedule 4.15;

(e) One or more special warranty or other deeds in recordable form reasonably acceptable to Buyer transferring fee simple title of Real Property;

(f) Certificate of Seller pursuant to Section 11.02 of this Agreement;

(g) Certificate of Seller pursuant to Section 11.06 of this Agreement; and

(h) All such other instruments of conveyance or other documents as shall, in the reasonable opinion of Buyer and its counsel, be necessary to transfer to Buyer the Acquired Assets in accordance with this Agreement or to carry out the terms of this Agreement, duly executed and acknowledged by Seller, if necessary, and in a recordable form.

Section 12.03 Deliveries by Buyer. At the Closing, Buyer shall have delivered or caused to be delivered to Seller the following agreements, documents and other items:

(a) Payment in full of the Purchase Price;

(b) A duly executed counterpart to the Assignment and Assumption Agreement;

(c) Certificate of Buyer pursuant to Section 10.02 of this Agreement;

(d) Certificate of Buyer pursuant to Section 10.05 of this Agreement;

(e) Evidence of PaPUC approval as provided in Section 10.03; and

(f) All such other instruments of assumption as shall, in the reasonable opinion of Seller and its counsel, be necessary for Buyer to assume the Assumed Liabilities in accordance with this Agreement, including any necessary actions or assignments to transfer or assign the Consent Order to Buyer.

ARTICLE XIII.
TERMINATION

Section 13.01 Events of Termination. This Agreement may, by notice given in the manner hereinafter provided, be terminated and abandoned at any time prior to completion of the Closing:

(a) By the mutual consent of Seller, the City, and Buyer;

(b) By either Seller and the City or Buyer if:

(i) the Closing shall not have occurred on or prior to the Outside Date; provided, however, either Seller, the City, or Buyer shall have the one-time right to extend the Outside Date for up to ninety (90) days if any such amount of time up to ninety (90) days is necessary to obtain a required Governmental Approval; or

(ii) any Governmental Authority shall have issued an order, decree or ruling or taken any other action, in each case permanently restraining, enjoining or otherwise prohibiting the material transactions contemplated by this Agreement and such order, decree, ruling or other action will have become final and non-appealable; provided, however, that the Party seeking termination pursuant to this clause (b) of this Section 13.01 is not in breach in any material respect of any of its representations, warranties, covenants or agreements contained in this Agreement;

(c) By Seller and the City (if Seller and City are not then in material breach of any provision of this Agreement) in the event of a material breach (A) of any covenant or agreement to be performed or complied with by Buyer pursuant to the terms of this Agreement or (B) of any representation or warranty of Buyer contained in this Agreement, which breach (i) has continued without cure for a period of sixty (60) days following written notice thereof by Seller and the City to Buyer or if such breach cannot be cured and (ii) would result in a condition to Closing set forth in Article X of this Agreement not being satisfied (which condition has not been waived by Seller and the City in writing); or

(d) By Buyer (if Buyer is not then in material breach of any provision of this Agreement) in the event of a material breach (A) of any covenant or agreement to he performed or complied with by Seller or the City pursuant to the terms of this Agreement or (B) of any representation or warranty of Seller or the City contained in this Agreement, which breach (i) has continued without cure for a period of sixty (60) days following written notice thereof by Buyer to Seller or the City or if such breach cannot be cured and (ii) would result in a condition to Closing set forth in Article XI of this Agreement not being satisfied (which condition has not been waived by Buyer in writing).

This Agreement may not be terminated after completion of the Closing.

Section 13.02 Effect of Termination. If this Agreement is terminated by Seller or Buyer pursuant to Section 13.01, written notice thereof will forthwith be given to the other and all further obligations of the parties hereto under this Agreement will terminate without further action by either Party and without liability or other obligation of either Party to the other Party hereunder; provided, however, (i) that no Party will be released from liability hereunder if this Agreement is terminated and the transactions abandoned by reason of any willful breach of this Agreement and (ii) that if this Agreement is terminated and the transactions abandoned for any reason, the City shall remain obligated on the Deposit Note, provided, however, the Parties shall not be deemed to have waived any rights or claims pursuant to this Agreement. With regard to any termination of this Agreement, the Seller and the City hereby affirmatively waive any defense to the validity and enforcement of the Deposit Note on the grounds that the Deposit Note is invalid as a result of not receiving any Governmental Approval. The Seller and the City further agree, at the request of the Seller, to cooperate at their own expense with any filing by the Buyer, even in connection with a termination, for any required Governmental Approval of the Deposit Note.

ARTICLE XIV.

MISCELLANEOUS

Section 14.01 Confidentiality. Except as and to the extent required by applicable Law (including but not limited to the Pennsylvania Right-To-Know Law, 65 P.S. §§ 67.101-67.3104, and the Pennsylvania Sunshine Act, 65 Pa. C.S. §§ 701-716) or pursuant to an order of a court of competent jurisdiction and as required hereunder to obtain any and all required Governmental Approvals, neither Party hereto shall, directly or indirectly, disclose or use (and no Party shall permit its Representatives to disclose or use) any Confidential Information of the other Party furnished, or to be furnished, by such other Party or its Representatives in connection herewith at any time or in any manner other than in connection with the completion of the transactions contemplated by this Agreement and related transactions.

Section 14.02 Public Announcements. Subject to applicable Law or listing rules of an exchange on which Buyer's direct or indirect parent corporation's stock is listed, and except as otherwise set forth herein, the initial public announcement relating to the transactions contemplated herein will be mutually agreed upon and jointly made by the Parties. Subsequent public announcements by one Party shall be subject to review and approval by the other Party prior to issuance, such approval not to be unreasonably withheld, conditioned or delayed.

Section 14.03 Notices. All notices, other communications and approvals required or permitted by this Agreement shall be in writing, shall state specifically that they are being given pursuant to this Agreement and shall be addressed as follows:

in the case of Seller:

Barley Snyder LLC
100 East Market Street
York, PA 17401
Attn: Stacey R. MacNeal

in the case of the City:

City of York
101 South George Street
York, PA 17401
Attn: Solicitor

with a copy to:

McNees Wallace & Nurick LLC
100 Pine Street
PO Box 1166
Harrisburg, PA 17108-1166
Attn: Adeolu Bakare

in the case of Buyer:

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055
Attn: President

With a copy to:

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055
Attn: General Counsel

or such other persons or addresses as a Party may from time to time designate by notice to the other Party. A notice, other communication or approval shall be deemed to have been sent and received (i) on the day it is delivered, or if such day is not a Business Day or if the notice is received after ordinary office hours (time of place of receipt), the notice, other communication or approval shall be deemed to have been sent and received on the next Business Day, or (ii) on the fourth Business Day after mailing if sent by United States registered or certified mail.

Section 14.04 Bulk Sales Laws. The Parties hereby waive compliance with the provisions of any bulk sales, bulk transfer or similar Laws of any jurisdiction that may otherwise be applicable with respect to the sale of any or all of the Purchased Assets to Buyer.

Section 14.05 Costs. Except as otherwise specifically provided in this Agreement, each Party shall be responsible for its own costs and expenses incurred in connection with its entrance into and performing and observing its obligations and covenants under this Agreement.

Section 14.06 Headings. The article, section and paragraph headings in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

Section 14.07 Severability. If any term, provision, covenant or restriction contained in this Agreement is held by a court of competent jurisdiction or PaPUC to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions contained in this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated unless the term, provision or restriction is a material term, the absence of which would significantly change the transaction to the detriment of Seller, Buyer or both.

Section 14.08 Entire Agreement. This Agreement and the other agreements required to be delivered pursuant to this Agreement constitutes the entire agreement between the Parties pertaining to the subject matter hereof and supersedes all prior agreements, negotiations, discussions and understandings, written or oral, between the Parties. There are no representations, warranties, conditions or other agreements, whether direct or collateral, or express or implied, that form part of or affect this Agreement, or that induced any Party to enter into this Agreement or on which reliance is placed by any Party, except as specifically set forth in this Agreement. The Parties acknowledge and agree that (i) each has substantial business experience and is fully acquainted with the provisions of this Agreement, (ii) the provisions and language of this Agreement have been fully negotiated and (iii) no provision of this Agreement shall be construed in favor of any Party or against any Party by reason of such provision of this Agreement having been drafted on behalf of one Party rather than the other Party.

Section 14.09 Construction. As used in this Agreement, (a) the gender of any word includes the masculine, feminine and neuter, (b) the number of any word includes the singular and plural, (c) the word "including" is exemplary, and not exclusive or limiting, and means "including, without limitation", (d) the word "or" is not exclusive, (e) the words "herein," "hereof," "hereby," "hereto" and "hereunder" refer to this Agreement, and (f) all references to Articles and Sections refer to articles and sections of this Agreement, and all references to Schedules or Exhibits are to schedules or exhibits attached hereto, each of which is made a part hereof for all purposes.

Section 14.10 Amendments; Waivers. This Agreement may be amended, changed or supplemented only by a written agreement signed by the Parties. Any waiver of, or consent to depart from, the requirements of any provision of this Agreement shall be effective only if it is in writing and signed by the Party giving it, and only in the specific instance and for the specific purpose for which it has been given. No failure on the part of any Party to exercise, and no delay in exercising, any right under this Agreement shall operate as a waiver of such right. No single or partial exercise of any such right shall preclude any other or further exercise of such right or the exercise of any other right.

Section 14.11 Parties in Interest; Third Party Beneficiary. Except as hereinafter provided, this Agreement is not intended to and shall not be construed to create upon any Person other than the Parties any rights or remedies hereunder.

Section 14.12 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Parties named herein and their respective successors and permitted assigns. Neither Party hereto shall assign or delegate this Agreement or any rights or obligations hereunder without the

prior written consent of the other Parties hereto and required Governmental Approvals, and any attempted assignment or delegation without prior written consent and required Governmental Approvals shall be void and of no force or effect.

Section 14.13 Non-Liability of Public Officials. Buyer may not charge any official, officer, employee, advisor or consultant of Seller or City personally with any liability or expenses of defense or hold any official, officer, employee, advisor or consultant of Seller personally liable to them under any term or provision of this Agreement or because of the execution, attempted execution or any breach of this Agreement by Seller or City.

Section 14.14 No Partnership. Nothing contained in this Agreement shall constitute or be deemed to create a partnership, joint venture, principal and agent relationship or employer and employee relationship between the Parties or their Representatives.

Section 14.15 Governing Law; Jurisdiction. This Agreement and any disputes arising in connection herewith shall be governed by and construed and enforced in accordance with, and governed by, the laws of the Commonwealth of Pennsylvania, without giving effect to any conflict or choice of law rule or principle that would result in the imposition of the laws of a jurisdiction other than the Commonwealth of Pennsylvania. The Parties hereto irrevocably agree and consent to the jurisdiction of Pa PUC, the United States District Court for the Middle District of Pennsylvania and the Court of Common Pleas of York County, Pennsylvania, for the adjudication of any matters arising under or in connection with this Agreement. Any action initiated in court shall be filed and litigated (including all discovery proceedings) exclusively in the United States District Court for the Middle District of Pennsylvania and the Court of Common Pleas of York County, Pennsylvania, and each Party irrevocably, except where the PaPUC has exclusive or primary jurisdiction, submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding. Service of process, summons, notice or other document by mail to such Party's address set forth herein shall be effective service of process for any suit, action or other proceeding brought in any such court. EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT OR THE OTHER TRANSACTION DOCUMENTS IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND, THEREFORE, EACH SUCH PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LEGAL ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH PARTY TO THIS AGREEMENT CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT SEEK TO ENFORCE THE FOREGOING WAIVER IN THE EVENT OF A LEGAL ACTION, (B) SUCH PARTY HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER, (C) SUCH PARTY MAKES THIS WAIVER VOLUNTARILY, AND (D) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

Section 14.16 Specific Performance. The Parties agree that irreparable damage would occur if any provision of this Agreement were not performed in accordance with the terms hereof and that the Parties shall be entitled to specific performance of the terms hereof, in addition to any other remedy, subject to the limitations in Section 7.05, to which they are entitled at law or in equity.

Section 14.17 Counterparts; Facsimile Execution. This Agreement may be executed in any number of counterparts which, taken together, shall constitute one and the same agreement. A

signature to this Agreement delivered by facsimile or email of a PDF document shall be deemed an original signature hereto and such delivery shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[THIS SPACE INTENTIONALLY LEFT BLANK;

SIGNATURES NEXT PAGE]

IN WITNESS WHEREOF, the Parties hereto have executed, or caused to be executed by their duly authorized Representatives, this Agreement as of the Effective Date.

YORK CITY SEWER AUTHORITY

By: Philip W. Biddell
Printed: PHILIP W. BIDDELL
Its: Chairman

PENNSYLVANIA-AMERICAN WATER COMPANY

By: _____
Printed: _____
Its: _____

CITY OF YORK

By: _____
Printed: _____
Its: _____

IN WITNESS WHEREOF, the Parties hereto have executed, or caused to be executed by their duly authorized Representatives, this Agreement as of the Effective Date.

YORK CITY SEWER AUTHORITY

By: _____
Printed: _____
Its: _____

PENNSYLVANIA-AMERICAN WATER COMPANY

By: _____
Printed: F. Michael Doran
Its: President

CITY OF YORK

By: _____
Printed: _____
Its: _____

Appendix A-5-1 (AUS)

IN WITNESS WHEREOF, the Parties hereto have executed, or caused to be executed by their duly authorized Representatives, this Agreement as of the Effective Date.

YORK CITY SEWER AUTHORITY

By: _____
Printed: _____
Its: _____

PENNSYLVANIA-AMERICAN WATER COMPANY

By: _____
Printed: _____
Its: _____

CITY OF YORK

By: _____
Printed: Michael R. Helfrich
Its: Mayor

IN WITNESS WHEREOF, the Parties hereto have executed, or caused to be executed by their duly authorized Representatives. this Agreement as of the Effective Date.

YORK CITY SEWER AUTHORITY

By: _____
Printed: _____
Its: _____

PENNSYLVANIA-AMERICAN WATER COMPANY

By: _____
Printed: _____
Its: _____

CITY OF YORK

By: _____
Printed: AliceAnn Frost
Its: Controller

ASSET PURCHASE AGREEMENT
DISCLOSURE SCHEDULES

These Disclosure Schedules (these "**Schedules**") are dated as of April 6, 2021 (the "**Effective Date**"), and shall be updated and delivered as of the Closing Date and are provided pursuant to the certain Asset Purchase Agreement dated as of April 6, 2021 (the "**Agreement**"), by and among York City Sewer Authority as Seller (the "**Seller**"), the City of York, and Pennsylvania-American Water Company as Buyer (the "**Buyer**"). Capitalized terms used in these Schedules but not defined herein shall have the respective meanings assigned to such terms in the Agreement.

The disclosures set forth herein, which have been numbered to correspond to the section numbers of the Agreement, supplement and are a part of the representations and warranties of the Seller in the Agreement. Any disclosures made under the heading of one section of these Schedules shall be deemed to constitute a disclosure for purposes of all applicable representations and warranties set forth within the Agreement (whether or not such representation and warranty makes specific reference to that (or any) Schedule).

These Schedules are qualified in their entirety by reference to specific provisions of the Agreement, and are not intended to constitute, and shall not be construed as constituting, additional representations and warranties of the Seller except as and to the extent provided in the Agreement. The inclusion of any item in these Schedules: (a) does not represent a determination by the Seller that such item is material nor shall it be deemed to establish a standard of materiality; (b) does not represent a determination by the Seller that such item did not arise in the ordinary course of business; and (c) shall not constitute, or be deemed to be, an admission to any third party concerning such item by the Seller.

The headings set forth in these Schedules are for convenience of reference only and do not constitute a part of these Schedules and shall not be deemed to limit, characterize or in any way affect the meaning or interpretation of these Schedules.

Schedule 2.02(h)
Excluded Assets

VEHICLES

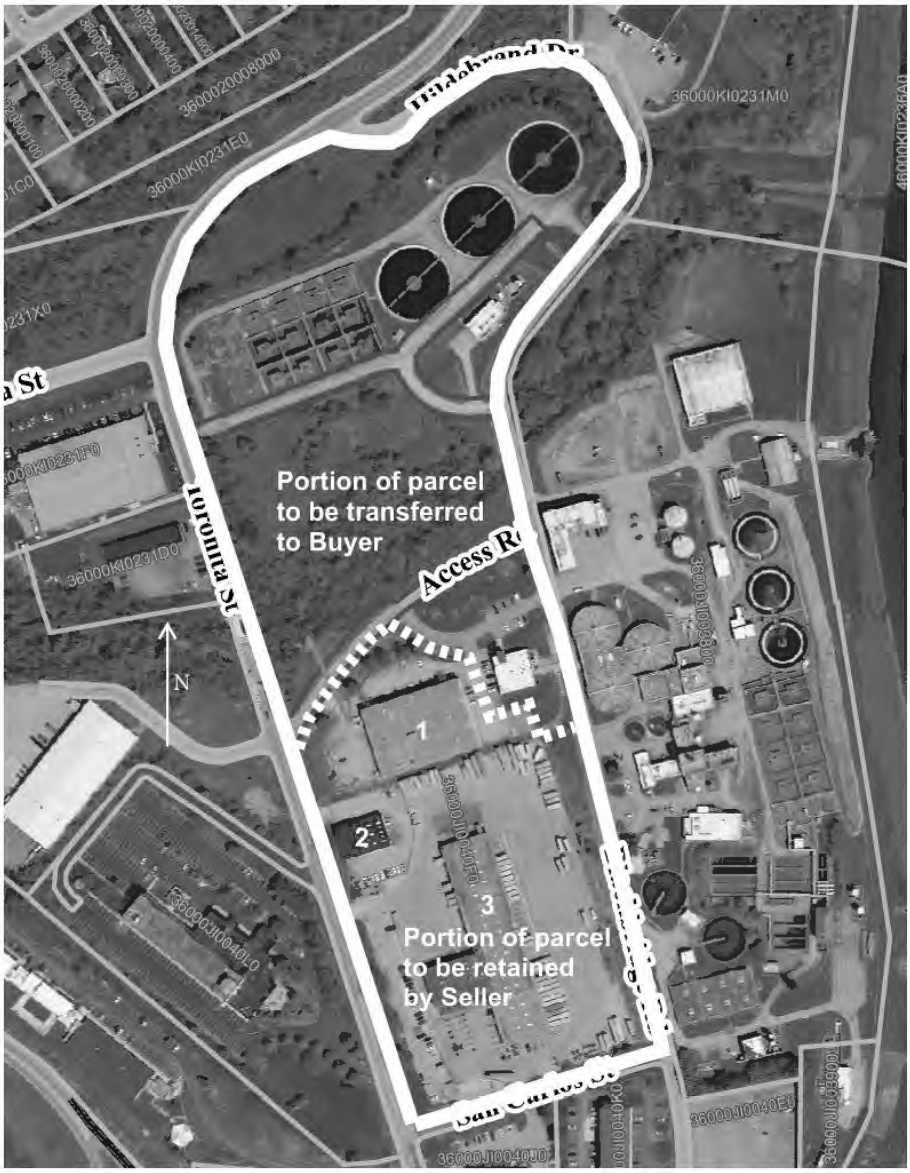
PLATE NUMBER	VIN #	VEHICLE #	REGISTERED OWNER ON TITLE
MG 7771K	1FTBF2B67JEC64860	2018 F250 w/Lift Gate	Enterprise
MG 0271L	1FMCU9GD0JUC91006	2018 Escape	Enterprise
MG 0267L	1FMCU9GD7JUC87874	2018 Escape	Enterprise
MG 3994L	1FTBF2B61KEG05834	2019 F250 w/Lift Gate	Enterprise
MG 3993L	1FTBF2B63KEG05835	2019 F250 w/Lift Gate	Enterprise
MG 5657B	1FMYU93105KE15536	2005 Escape	Phillips Ford
MG 5967F	1FMCU9D70BKB92455	2011 Escape	Apple Ford
MG 6501K	1HTGRSJT3CJ621257	2012 Dump Truck	Five Star
MG 8803L	5KKHAXFE5LPLH9398	2020 Dumpster Truck	River's
MG 99768	1GBP7D1YXGV108875	1986 Dump Truck	Chevrolet
MG 8946F	1FDRF3F67BEC58259	2011 Stake Body Truck	Apple Ford
MG 4961H	1FMCU9GX1EUD51892	2014 Escape	Apple Ford
MG 5686B	1FMYU93195KE15535	2005 Escape	Phillips Ford
MG 6206L	JF2SKAAC4KH564760	2019 Wagon	Enterprise
MG 6770H	1FMCU9D77AKD33827	2010 Escape	Apple Ford
MG 6207L	JF2SKAAC4KH565780	2019 Wagon	Enterprise
MG 0269L	1FMCU9GD2JUC87877	2018 Escape	Enterprise
MG 7039E	1FMCU93779KB19126	2009 Escape	Apple Ford
MG 7763L	1FDXE4FS7HDC52506	2017 CCTV Truck	Cues
MG 5917K	1FD8X3HT8HEF26479	2017 4x4 Dump Truck	Enterprise
MG 1803K	1FD7X2B61HEE99294	2017 Super Duty	Enterprise
MG 4348L	1FDRF3H69JEC65144	2018 Truck	Enterprise
MG 7766K	1FDRF3GT6JEC65142	2018 F350 Stake Body	Enterprise
MG 92319	2FZHATDC36AX21449	2006 LT7500 Camel Flusher	
MG 7023D	1FDSF35538EE30449	2008 Truck	Hoffman Ford
MG 0719G	1HTWKAZR1CJ632650	2012 Truck w/ Camel	
E450	1FDXE4FS7HDC52506	2017 Ford Econoline Camera Truck CCTV	Fulton Leasing Company

In addition to the vehicles listed above, all vehicles owned by the City and used exclusively for non-System purposes.

In addition to the vehicles listed above, all vehicles leased by the City, including any leased vehicles used in operation of the System.

REAL ESTATE

Seller intends to retain the southern portion of the tax parcel in the image below (36-000-JI-0040.F0-00000), which is the area below the dotted line. The area to be retained includes the UPS facility and the two storage buildings (all described below) just south of the proposed subdivision line.



- Building 1 – Electrical maintenance building (listed as the "Vehicle Storage Building" in the Engineer's Report)
- Building 2 – Small storage building (not included in the Engineer's Report)
- Building 3 – UPS facility (not included in the Engineer's Report)

Schedule 4.05
Seller's Governmental Consents and Approvals

Pennsylvania Public Utility Commission

Pennsylvania Department of Environmental Protection Approval of Act 537 Official Plan Revision or Amendment recognizing transfer of System from Seller to Buyer

Pennsylvania Department of Environmental Protection Transfer or Assignment of All Authorizations and Permits, except NPDES Permit No. PAC670168

York County Conservation District Transfer or Assignment of NPDES Permit No. PAC670168

Agreement with Metropolitan Edison Company for Alternate Feed Electric Service	- Met-Ed Company - City of York	January 31, 2012
E-Finity Distributed Generation, LLC Contract	- E-Finity Distributed Generation, LLC - City of York	June 6, 2017
Shipley Energy Natural Gas Sales Agreement	- Shipley Choice LLC - City of York	May 1, 2019
TalenEnergy Retail Electricity Agreement	- TalenEnergy - City of York	January 1, 2020
Aquatic Informatics	- City of York - Aquatic Informatics	July 1, 2020
Billing and Revenue Service Agreement	- City of York - York Water Company	October 18, 2019

Schedule 4.06
Liabilities

Series of Bonds	Principal Amount Outstanding as of 12/1/2020
Guaranteed Sewer Revenue Bond, Series of 2008	$5,780,000.00
Guaranteed Sewer Revenue Bond, Series of 2011	$104,815.47
Guaranteed Sewer Revenue Bonds, Series of 2017	$21,010,000.00
Guaranteed Sewer Revenue Bond, Series of 2019	$3,996,485.63[1]

[1] The Seller's Guaranteed Sewer Revenue Bond, Series of 2019 is a short-term construction loan, maturing on April 15, 2022, in the maximum principal amount of $10,000,000. The Seller anticipates making additional draws on the loan as funds are needed for the projects that are being financed with the proceeds: (1) a filter replacement project; and (2) a SCADA replacement project. The Seller has secured permanent financing for the filter replacement project, in the amount of $6.8 million, from the Pennsylvania Infrastructure Investment Authority ("PennVEST"). The loan from PennVEST evidencing the permanent financing has not yet closed. The Seller anticipates that it will apply for permanent financing for the SCADA replacement project from PennVEST in the ordinary course of business, with closing to occur in the second quarter of 2021.

Schedule 4.07
Certain Changes or Events

None.

Schedule 4.08
Tax Matters

None.

Schedule 4.09
Real Property and Easements

PERMITS FOR CONSTRUCTION AND EXPANSION OF THE SYSTEM

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
City of York	Commonwealth of PA	10/22/1909	16-S / 376	Permit
City of York	Commonwealth of PA	6/21/1913	18-V / 367	Permit
City of York	Commonwealth of PA	7/1/1914	19-L / 208	Permit
City of York	Commonwealth of PA	3/12/1915	19-O / 649	Permit
City of York	Commonwealth of PA	7/3/1915	19-V / 499	Permit
City of York	Commonwealth of PA	1/10/1916	20-A / 312	Permit
City of York	Commonwealth of PA	9/8/1922	22-C / 497	Permit
City of York	Commonwealth of PA	3/12/1915	19-O / 649	Permit
City of York	Commonwealth of PA	12/5/1933	25-P / 574	Permit
City of York	Commonwealth of PA	10/11/1935	26-F / 557	Permit
City of York	Commonwealth of PA	9/30/1936	26-N / 620	Permit
City of York	Commonwealth of PA	11/8/1941	29-A / 104	Permit
City of York	Commonwealth of PA	11/8/1941	29-A / 109	Permit
City of York	Commonwealth of PA	3/16/1943	29-T / 298	Permit
City of York	Commonwealth of PA	5/11/1945	31-A / 610	Permit
City of York	Commonwealth of PA	2/17/1950	35-A / 504	Permit
York City Sewer Auth	Commonwealth of PA	6/8/1961	51-H / 580	Permit – York
York City Sewer Auth	Commonwealth of PA	1/11/1973	66-C / 1028	Permit – York
York City Sewer Auth	Commonwealth of PA	10/5/1973	67-C / 790	Permit – York
York City Sewer Auth	Commonwealth of PA	7/23/1974	68-B / 130	Permit – York
York City Sewer Auth	Commonwealth of PA	7/29/1981	83-F / 923	Permit – Manch Twp
York City Sewer Auth	PA Dept. Envr. Resources	4/20/1987	95-I / 455	Permit – Manch Twp
York City Sewer Auth	PA Dept. Envr. Resources	7/11/1991	201 / 1094	Permit – Manch Twp

REAL PROPERTY AND EASEMENTS

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
City of York	Guardian Trust Co.	12/28/1911	18-A / 357	York
City of York	P A & S Small Land Co.	11/5/1914	19-G / 642	Agreement
City of York	Jane Gresly	6/28/1915	19-U / 368	ROW
City of York	Joseph R. Jones	5/22/1917	20-L / 263	Sewer Rents
City of York	Bilmeyer & Small Co.	8/8/1918	20-S / 377	ROW
City of York	West End Sewer Co.	10/21/1919	21-E / 35	Sewer System
City of York	Jacob Bare Est.	7/23/1926	23-N / 558	ROW
City of York	William M. Boger	9/23/1926	23-Q / 236	ROW
City of York	Ralph K. Trimmer	9/29/1926	23-O / 650	Agreement
City of York	Grier Hersh	7/10/1931	24-Z / 628	ROW
City of York	York County Poor District	1/27/1932	25-F / 36	ROW
City of York	Annie M. Menough	5/6/1932	25-E / 665	ROW
City of York	Frederick C. Boesch Exr	5/6/1932	25-E / 666	ROW

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
City of York	Community Swimming Assn Inc	5/10/1932	25-E / 667	ROW
City of York	Norard Hosiery Mills Inc.	8/9/1933	25-R / 4	ROW
City of York	Agnes Kehm	12/21/1933	25-R / 279	ROW
City of York	Sallie S. Bond	12/21/1993	25-4 / 280	ROW
City of York	York Hospital	5/11/1936	26-K / 238	York Co
City of York	David M. Myers Exr	8/30/1937	26-Z / 267	ROW
City of York	York County Institution Dist	6/10/1938	27-I / 515	ROW
City of York	J. Victor Jones	6/10/1938	27-I / 516	ROW
City of York	York Tack & Nail Works	6/10/1938	27-I / 518	ROW
City of York	New York Wire Cloth Co	6/10/1938	27-I / 520	ROW
City of York	Home Furniture Co	6/10/1938	27-I / 522	ROW
City of York	David P. Klinedinst Trust	6/10/1938	27-I / 524	ROW
City of York	American Chain & Cable Co. Inc.	6/10/1938	27-I / 525	ROW
City of York	George H. Wolf	6/10/1938	27-I / 527	ROW
City of York	Maryland & Penna. Railroad Co.	6/10/1938	27-I / 529	ROW
City of York	York County Institution Dist	6/24/1938	27-I / 636	ROW
City of York	Ella L. Kleffman	7/21/1938	27-K / 209	ROW
City of York	George D. Deardorff	7/21/1938	27-K / 210	ROW
City of York	Sarah E. Miller	7/21/1938	27-K / 211	ROW
City of York	Howard E. Holland	3/31/1939	27-R / 352	ROW
City of York	York Water Co	6/30/1939	27-U / 566	York
City of York	York Water Co.	1/10/1941	28-M / 376	Agreement
City of York	Ray S. Noonan	9/12/1941	28-W / 267	ROW
City of York	Maryland & Penna R R Co	9/12/1941	28-W / 269	ROW
City of York	York Independent Oil Co.	9/12/1941	28-W / 272	Consent
City of York	Fannie M. Free	7/7/1945	31-I / 182	ROW
City of York	Motor Freight Express Inc.	10/20/1945	31-N / 162	Agreement
City of York	Pauline L. Lavetan	4/10/1947	32-V / 533	Agreement
City of York	C. Kauffman Miller	4/22/1947	33-B / 14	Agreement
City of York	Harry R. Lenker	1/17/1950	35-C / 606	Agreement
City of York	Marie A. Garner	7/19/1950	35-M / 532	Agreement
City of York	George S. Freed	7/19/1950	35-M / 535	Agreement
City of York	Heistand Frey	8/1/1950	35-L / 583	ROW
City of York	David Y. Herbst	11/4/1950	35-T / 632	ROW
City of York	Penn Dairies Inc.	12/11/1950	35-Y / 108	Agreement
City of York	Penn Dairies Inc.	12/11/1950	35-Y / 113	Agreement
York City Sewer Auth	City of York	4/15/1952	36-U / 546	Deed – Transfer of Sewer System
York City Sewer Auth	Commonwealth of PA	2/6/1969	61-X / 562	ROW – Manch Twp
York City Sewer Auth	Commonwealth of PA	2/6/1969	U / 130 Ref. 61X / 562	Plan – Manch Twp

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
York City Sewer Auth	GTE Sylvania Inc.	7/9/1971	64-I / 237	ROW – W Manch Twp
York City Sewer Auth	Robert Eichelberger	7/9/1971	64-I / 240	ROW – W Manch Twp
York City Sewer Auth	York Stone and Supply Co.	7/9/1971	64-I / 243	ROW – W Manch Twp
York City Sewer Auth	York Drilling Co. Inc.	7/9/1971	64-I / 246	ROW – W Manch Twp
York City Sewer Auth	Williams Tool & Machine	7/9/1971	64-I / 249	ROW – W Manch Twp
York City Sewer Auth	Luther D. March	7/9/1971	64-I / 252	ROW – W Manch Twp
York City Sewer Auth	Robert Eichelberger	7/9/1971	U / 486 Ref. 64I / 240	Plan – W Manch Twp
York City Sewer Auth	York Stone and Supply Co.	7/9/1971	U / 487 Ref. 64I / 243	Plan – W Manch Twp
York City Sewer Auth	York Drilling Co. Inc.	7/9/1971	U / 488 Ref. 64I / 246	Plan – W Manch Twp
York City Sewer Auth	Williams Tool & Machine	7/9/1971	U / 489 Ref. 64I / 249	Plan – W Manch Twp
York City Sewer Auth	Luther D. March	7/9/1971	U / 490 Ref. 64I / 252	Plan – W Manch Twp
York City Sewer Auth	Sun Oil Company	1/5/1972	64-W / 1194	ROW – York
York City Sewer Auth	Sun Oil Company	1/5/1972	U / 571 Ref. 64W / 1194	Plan – York
York City Sewer Auth	Commonwealth of PA	1/11/1973	66-C / 1028	Order – York
York City Sewer Auth	Metropolitan Edison Co.	4/7/1978	76-B / 151	ROW – Manch Twp
York City Sewer Auth	Metropolitan Edison Co.	7/27/1981	83-F / 524	ROW – Manch Twp
York City Sewer Auth	Merchants Terminal Corp.	10/9/1984	88-F / 1002	Declaration – Manch Twp
York City Sewer Auth	Metropolitan Edison Co.	5/28/1985	89-M / 909	ROW – Manch Twp
York City Sewer Auth	United States of America	6/27/1985	89-T / 348	ROW – Manch Twp
York City Sewer Auth	Merchants Terminal Corp.	8/23/1985	90-E / 489	Deed – Manch Twp
York City Sewer Auth	Theodore R. Jones	4/3/1986	91-V / 414	Deed – Manch Twp
York City Sewer Auth	N/A	4/29/1986	FF / 799	Plan – Manch Twp
York City Sewer Auth	Manchester Township	10/3/1986	93-O / 284	Agreement – Manch Twp
York City Sewer Auth	Bob Evans Farms Inc.	10/30/1986	93-U / 992	Deed – Manch Twp
York City Sewer Auth	City of York	4/30/1987	95-L / 665	ROW – York
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 672	ROW – York
York City Sewer Auth	Champion Intl. Corp.	4/30/1987	95-L / 679	ROW – York
York City Sewer Auth	Larry Liebgott	4/30/1987	95-L / 687	ROW – York
York City Sewer Auth	York City School District	4/30/1987	95-L / 694	ROW – York
York City Sewer Auth	York College of PA	4/30/1987	95-L / 702	ROW – Spring Garden Twp
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 707	ROW – York
York City Sewer Auth	Robert D. Hechinger	4/30/1987	95-L / 715	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 723	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 731	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 739	ROW – York

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
York City Sewer Auth	L. Levetan & Sons	4/30/1987	95-L / 747	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 756	ROW – York
York City Sewer Auth	York City Redev. Auth.	4/30/1987	95-L / 765	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 773	ROW – York
York City Sewer Auth	City of York	4/30/1987	95-L / 782	ROW – York
York City Sewer Auth	York College of PA	4/30/1987	GG / 421 Ref. 95-L / 702	Plan – Spring Garden Twp
York City Sewer Auth	Maryland and PA Railroad	5/8/1987	95-N / 1010	ROW – York
York City Sewer Auth	Metropolitan Edison Co.	5/20/1987	95-Q / 993	ROW – York
York City Sewer Auth	City of York	12/7/1987	97-R / 350	Memo of Lease – Sewer System
York City Sewer Auth	Dennis L. Edleblute	7/6/1988	99-R / 979	ROW – York
York City Sewer Auth	Metropolitan Edison Co.	7/27/1988	99-Z / 254	ROW – Manch Twp
York City Sewer Auth	York City Redev. Auth.	7/27/1988	99-Z / 257	Agreement – York
York City Sewer Auth	Evelyn Jane Silberman	11/21/1988	101-F / 376	Agreement – York
York City Sewer Auth	Maryland and PA Railroad	12/19/1988	101-L / 868	Addendum – York
York City Sewer Auth	Columbia Gas of PA Inc.	1/25/1989	101-T / 1085	ROW – York
York City Sewer Auth	N/A	5/25/1989	JJ / 318	Plan – Manch Twp
York City Sewer Auth	Metropolitan Edison Co.	7/14/1989	103-J / 122	ROW – Manch Twp
York City Sewer Auth	City of York	9/8/1993	714 / 354	ROW – York
York City Sewer Auth	Dentsply Intl. Inc.	11/30/1993	776 / 482	Agreement – York
York City Sewer Auth	Theodore R. Jones	8/2/1994	948 / 608 Ref. 91-V / 414	Termination – Manch Twp
York City Sewer Auth	Springettsbury Twp	10/29/1999	1381 / 6381	ROW – Springettsbury Twp
York City Sewer Auth	Springettsbury Twp	10/29/1999	GG / 1806 Ref. 1381 / 6381	ROW – Springettsbury Twp
York City Sewer Auth	York Building Prod. Co.	8/17/2000	1407 / 8871	ROW – W Manch Twp
York City Sewer Auth	Maryland and PA Railroad	2/7/2001	1424 / 4281	ROW – York
York City Sewer Auth	Maryland and PA Railroad	2/7/2001	1424 / 4286	Addendum – York
York City Sewer Auth	York City School Dist.	3/12/2001	1427 / 6924	ROW – W Manch Twp
York City Sewer Auth	John E. Gearhart	3/12/2001	1427 / 6935	ROW – York
York City Sewer Auth	York College of PA	5/24/2001	1438 / 4147	Termination – Spring Garden Twp
York City Sewer Auth	B.B., Jr., Inc.	12/11/2002	1533 / 7073	ROW – Manch Twp
York City Sewer Auth	Creekside Investors, LP	1/10/2003	1539 / 7893	ROW – York
York City Sewer Auth	Bradley B. Smith	6/23/2004	1660 / 6513	Order – York
York City Sewer Auth	John E. Gearhart	1/18/2008	1943 / 7314	Declaration – York
York City Sewer Auth	Cresticon Inc.	1/18/2008	1943 / 7327	Declaration – York
York City Sewer Auth	Svedala Industries Inc.	3/20/2008	1954 / 5867	ROW – Spring Garden Twp
York City Sewer Auth	York College of PA	6/16/2008	1970 / 5362	ROW – Spring Garden Twp

GRANTEE	GRANTOR	REC. DATE	BOOK / PAGE	DESCRIPTION
York City Sewer Auth	Bradley B. Smith	9/10/2008	1984 / 6347	Order – York
York City Sewer Auth	Metso Minerals Indust. Inc.	12/17/2009	2056 / 3789	Extension – Spring Garden Twp
York City Sewer Auth	Metso Minerals Indust. Inc.	1/17/2010	2079 / 7388 Ref. 1954 / 5867	Extension – Spring Garden Twp
York City Sewer Auth	John E. Gearhart	11/18/2010	2102 / 2115	ROW – York
York City Sewer Auth	Harley-Davidson Mot. Co.	7/18/2013	2241 / 7178	ROW – Manch Twp
York City Sewer Auth	County of York PA	11/13/2014	2299 / 3520	ROW – Manch Twp
York City Sewer Auth	Columbia Gas of PA Inc.	12/20/2017	2452 / 2737	ROW – Manch Twp
York City Sewer Auth	Manchester Twp Mun Auth	5/4/2018	2469 / 991	ROW – Manch Twp
York City Sewer Auth	Molt LLC	7/23/2018	2479 / 7170	ROW – Manch Twp
York City Sewer Auth	County of York PA	9/18/2019	2536 / 3183	ROW – Manch Twp
York City Sewer Auth	Harley-Davidson Mot. Co.	12/3/2019	2548 / 2149 Ref. 2241 / 7178	Amendment – Manch Twp

Schedule 4.10
Equipment and Machinery

[To be provided][2]

[2] All items not specifically noted as Excluded Assets in Schedule 2.02(h) will be included. The equipment and machinery list in the Engineer's Assessment prepared by Buchart Horn will be incorporated by reference.

Schedule 4.11(b)
City's Plans and City's Benefit Obligations

Collective Bargaining Agreement between Teamsters Local 776 and the City of York. Expires December 31, 2022.

City of York Officers and Employees Retirement Fund

Deferred Compensation 457(b) Plan by Nationwide

Capital Blue Cross Health Insurance Plan (PPO)

Delta Dental Basic and Enhanced Dental Plans

Vision Coverage by Vision Benefits of America

Prescription Drug Coverage by Express Scripts

Flexible Spending Account (FSA) by Chard Snyder

OSS Company Direct Program

Ancillary Benefits by Colonial Life (Disability, Accident, Cancer, Critical Illness, Life)

Life Insurance and Supplemental Life Insurance by The Standard

Education Assistance Program Tuition Reimbursement

Schedule 4.11(c)
Multiemployer Plans

None.

Schedule 4.11(d)
Employee Benefit Plans

Collective Bargaining Agreement between Teamsters Local 776 and the City of York. Expires December 31, 2022.

City of York Officers and Employees Retirement Fund

Deferred Compensation 457(b) Plan by Nationwide

Capital Blue Cross Health Insurance Plan (PPO)

Delta Dental Basic and Enhanced Dental Plans

Vision Coverage by Vision Benefits of America

Prescription Drug Coverage by Express Scripts

Flexible Spending Account (FSA) by Chard Snyder

OSS Company Direct Program

Ancillary Benefits by Colonial Life (Disability, Accident, Cancer, Critical Illness, Life)

Life Insurance and Supplemental Life Insurance by The Standard

Education Assistance Program Tuition Reimbursement

Schedule 4.11(f)
Severance Agreements

None.

Schedule 4.12(a)
Personnel Contracts

Collective Bargaining Agreement between Teamsters Local 776 and the City of York.
Expires December 31, 2022.

Schedule 4.12(b)
Accrued Personnel Vacation and Sick Leave

None.

Schedule 4.13
Environmental Compliance

Administrative Order for Compliance on Consent

On April 2, 2020, the City of York received a Request for Information under Section 308 of the federal Clean Water Act issued by the U.S. Environmental Protection Agency ("EPA"). The City of York responded to the Request for Information on May 22, 2020. On December 10, 2020, the City of York received a Notice of Potential Violations and Opportunity to Confer regarding NPDES Permit No. PA0026263. A draft Administrative Order for Compliance on Consent ("AOCC") was attached to EPA's December 10, 2020 correspondence.

PADEP Notices of Violation

Date	Summary
August 13, 2012	Unauthorized discharge resulting from loss of electrical power.
December 9, 2015	Unauthorized discharge due to centrifuge malfunction.
March 23, 2016	Unauthorized discharge resulting from loss of electrical power.
July 1, 2016	Sampling and operation and maintenance violations.
January 31, 2017	Past due aboveground storage tank integrity inspection.
July 26, 2017	Unauthorized discharge to stormwater collection system.
March 25, 2019	Effluent exceedances between July 31, 2017 and November 30, 2018.
July 9, 2019	Operation of tertiary sand filtration system.
September 4, 2019	Unauthorized discharge resulting from third-party industrial wastewater discharge to sewer system.

Consent Assessment of Civil Penalty

On November 9, 2012, the York City Sewer Authority entered into a Consent Assessment of Civil Penalty ("CACP") with the Pennsylvania Department of Environmental Protection ("PADEP") to resolve violations of NPDES Permit No. PA0026263 as described in the August 13, 2012 Notice of Violation.

Consent Order and Agreement

On July 12, 2017, the York City Sewer Authority entered into a Consent Order and Agreement ("COA") with PADEP to resolve violations of NPDES Permit No. PA0026263 occurring between January 2012 and June 2016, as described in the December 9, 2015, March 23, 2016, and July 1, 2016

Notices of Violation. The COA prescribed four corrective actions consisting of (1) the submission of a High Flow Management Plan; (2) the submission of an engineer's evaluation of Outfall No. 002's final effluent flow meter system; (3) the installation of a new flow meter at Outfall No. 002; and (4) the repair and/or replacement of the sluice gate valve on the gravity discharge line from the stormwater collection basin to Outfall No. 001. Each corrective action as detailed in the COA has been completed.

Schedule 4.14
Seller's Authorizations and Permits

Permit No.	**Facility**
PAG-08-3501 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
67-05013 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
PAC670168 and all amendments, modifications, and/or revisions	YCSA Manchester Interceptor 1701 Black Bridge Road York, PA 17402
PA0026263 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6709402 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6796408 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6717409 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6708401 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6785418 and all amendments, modifications, and/or revisions[3]	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6700404 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6784419 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402
6795410 and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402

[3] The City of York has provided copies of Amendment Nos. 99-1 and 02-1 to WQMP No. 6785418. A copy of the original 1986 WQMP No. 6785418 could not be located.

Permit No.	**Facility**
Storage Tank Registration Permit/Certification and all amendments, modifications, and/or revisions	York City Wastewater Treatment Plant 1701 Black Bridge Road York, PA 17402

Schedule 4.15
System Contracts

No.	Name of Contract	Parties to Contract	Date of Contract
1	2018 CSL – City of York Agreement	- CSL Services, Inc. - City of York	June 28, 2018
2	Aquatics Informatics Services Agreement	- City of York - Aquatic Informatics	July 1, 2020
3	Articles of Agreement with Spring Garden Township	- Spring Garden Township - City of York	December 8, 1976
4	Articles of Agreement with Manchester Township	- Manchester Township - City of York	December 9, 1976
5	Articles of Agreement with North York Borough	- North York Borough - City of York	December 10, 1976
6	Articles of Agreement with West Manchester Township	- West Manchester Township - City of York	December 10, 1976
7	Articles of Agreement with West York Borough	- West York Borough - City of York	December 13, 1976
8	Articles of Agreement with York Township	- York Township - City of York	December 10, 1976
12	BH Proposal for Engineering Serv. 3-27-20	- Buchart Horn, Inc. - City of York	April 16, 2020
13	BH Proposal for Filter Replacement Project	- Buchart Horn, Inc. - Authority	January 15, 2020
14	BH Proposal for Clarifier Upgrades Construction Phase Design	- Buchart Horn, Inc. - Authority	December 10, 2019

15	BH Renewal for On Call Technical Support 2020	- Buchart Horn, Inc. - City of York	January 15, 2019
16	Billing and Revenue Service Agreement City of York as Filed with PUC	- City of York - York Water Company	October 18, 2019
17	City of York, PA, and Sunshine Call Center Contract	- Sunshine Communication Services - City of York	November 1, 2016
18	Control Systems 21 Instrumentation Repair and Maintenance Service Agreement	- City of York - Control Systems 21	January 2, 2018
21	Executed Aqua Aerobics Change Order for Filter Replacement	- Authority - Aqua-Aerobic Systems	April 16, 2020
22	Executed Aqua Aerobics Proposal for Filter Replacement	- Authority - Aqua-Aerobic Systems	January 22, 2020
23	Executed BH Proposal for 2020 Interceptor Master Plan	- Buchart Horn, Inc. - Authority	April 16, 2020
24	Executed Buchart Horn Proposal for Prospect Street Interceptor	- Buchart Horn, Inc. - Authority	April 16, 2020
25	Executed CPP Construction Agreement for Primary Clarifier Upgrade	- CPP Construction Company - Buchart Horn Inc. - Authority	January 15, 2020
26	Executed CPP Construction Change Order No. 1 for	- CPP Construction Company	February 20, 2020

	Primary Clarifier Upgrade	- Buchart Horn Inc. - Authority	
27	Executed Garden Spot Mechanical Agreement for Filter Replacement	- Garden Spot Mechanical, Inc. - Buchart Horn Inc. - Authority	May 22, 2020
28	Executed PSI Pumping Solutions Agreement for Electrical Contract for Filter Replacement	- PSI Pumping Solutions, Inc. - Buchart Horn Inc. - Authority	May 22, 2020
29	Executed PSI Pumping Solutions Agreement for General Contract for Filter Replacement	- PSI Pumping Solutions, Inc. - Buchart Horn Inc. - Authority	May 22, 2020
30	Garden Spot Mechanical Agt. Effluent Filter Replacement 2020	- Garden Spot Mechanical, Inc. - Buchart Horn Inc. - Authority	May 22, 2020
32	Microturbine Maintenance (Efinity) Contract	- E-Finity Distributed Generation, LLC - City of York	June 6, 2017
35	PSI Electrical Contract 2020	- PSI Pumping Solutions, Inc. - Buchart Horn Inc. - Authority	May 22, 2020
36	PSI General Contract 2020	- PSI Pumping Solutions, Inc.	May 22, 2020

		- Buchart Horn Inc. - Authority	
37	Shipley Choice Natural Gas Sales Agreement 2019-2022	- Shipley Choice LLC - City of York	April 15, 2019
38	Shut Off Agreement York Water Company and City of York	- The York Water Company - City of York	September 1, 2010
39	Springettsbury Pump Station Agreement 2002	- Springettsbury Township - City of York	March 19, 2002
40	Synagro – City of York 2020 Contract Extension	- Synagro Central, LLC - City of York	April 25, 2020
41	Synagro Agreement 2013	- Synagro Central, LLC - City of York	January 25, 2013
42	Synagro Performance Bond	- Synagro Central, LLC - City of York	April 24, 2015
43	TalenEnergy Retail Electricity Agreement 2020-2021	- Talen Energy Marketing, LLC - City of York	January 13, 2020
44	York Manchester Interceptor Agreement	- Manchester Township - York City Sewer Authority	May 23, 1989

***This schedule remains subject to modification as mutually agreed by the City and the Buyer.*

Schedule 4.16
Compliance with Law, Litigation

Schedule 4.13 is incorporated herein by reference.

Wanda Rios Martinez v. City of York – EEOC Charge No. 530-2017-02650

Schedule 4.18
Title to Acquired Assets; Sufficiency

None.

Schedule 6.03(a)
Personnel

Employee Name	2020 Position/Title
Altland, Jesse	Wastewater Plant Operator II
Brooks, Gary L	Wastewater Plant Operator II
Brose, Matthew K	WWTP Maintenance Mechanic II
Bullock, Percy	Sewer Maintenance Supervisor
Campagne, Frankie	General Manager
Casillas, Eric	WWTP Maintenance Mechanic II
Chavez, Veronica L Whaley	Pretreatment Permit/Compliance Manager
Concino, Joseph A	Senior Chemist
Curry, Justin D	Wastewater Plant Operator II
Cusaac, Anthony	WWTP Maintenance Mechanic II
Diaz Arias, Hidalgo S	Wastewater Treatment Plant Operations Shift Supervisor
Fealtman, Crystal A	Administrative Assistant
Gwynn, Ervin	WWTP Maintenance Mechanic II
Harris, Eric T	Wastewater Collection Operator II
Hoffnagle, James D	Wastewater Collection Operator I
Hoh, Sara	Chemist
Howell, Kevin L	Wastewater Collection Operator II
Kinard, Michael J	Wastewater Collection Operator I
Lewis, Eugene E.	Wastewater Plant Operator II
Longstreet, Erin B	Chemist
Lopez, Hector	Wastewater Plant Operator II
Maszczak, Eugene	Wastewater Plant Operator II
Millar, Scott T	Wastewater Treatment Plant Maintenance Mechanic Supervisor
Rawlison, James L	Wastewater Collection Operator I
Rivera, Channon K	Wastewater Plant Operator II
Santiago, Joshua J	WWTP Maintenance Mechanic II
Shaffer, Ronald Lee	Wastewater Plant Operator II
Stoudt, John E	Wastewater Plant Operator II
Thomas, Galen	Wastewater Plant Operator II
Trimmer, Jody A	WWTP Maintenance Mechanic II
Walters, Paul D	Wastewater Plant Operator II
Weidman, Miranda L	Wastewater Plant Operator II
Yeatts, Joseph D	Wastewater Collection Operator II
Yeng, Chhoeuth	Wastewater Plant Operator II

Vacant Positions	
Vacant	WWTP Operations Manager

Vacant	Wastewater Treatment Plant Operations Shift Supervisor
Vacant	Wastewater Treatment Plant Operations Shift Supervisor
Vacant	Compliance Officer II
Vacant	Chemist
Vacant	Wastewater Plant Operator II

Schedule 6.04(a)
Base Rate

Annual Sanitary Sewer Rates for Domestic and Commercial Metered Water Users:

(a) Monthly quantity charge—For each 1000 gallons per month: $9.37
(b) Minimum Charge- $18.00 which shall entitle users 1920 gallons per month of sewer service.

Sewer Rent or Charge for Industrial Waste:

(a) Monthly charge- For each 1000 gallons per month: $9.37

Bulk Sewer Rates for Municipalities are set by negotiated contracts.

Schedule 10.01(a)
Seller's Consents and Approvals

Agreement with Metropolitan Edison Company for Alternate Feed Electric Service	- Met-Ed Company - City of York	January 31, 2012
E-Finity Distributed Generation, LLC Contract	- E-Finity Distributed Generation, LLC - City of York	June 6, 2017
Shipley Energy Natural Gas Sales Agreement	- Shipley Choice LLC - City of York	May 1, 2019
TalenEnergy Retail Electricity Agreement	- TalenEnergy - City of York	January 1, 2020
Aquatic Informatics	- City of York - Aquatic Informatics	July 1, 2020
Billing and Revenue Service Agreement	- City of York - York Water Company	October 18, 2019

Agreement to Provide Valuation Consulting Services Between

AUS Consultants

And

Pennsylvania America Water Company
For the Appraisal of

City of York and York City Sewer Authority, York, Pennsylvania
Municipal Wastewater System

As of the most recent period (Third Quarter 2020)

Agreement for Valuation Consulting Services

This Agreement for Valuation Consulting Services ("Agreement") is by and between AUS Consultants, a New Jersey corporation ("Supplier") and Pennsylvania-American Water Company, a Pennsylvania corporation ("PA-American") and is entered into as of August 11, 2020. In consideration of the covenants hereinafter contained, and intending to be legally bound, the Parties hereto agree to as follows:

Section 1. Description of Services:
Supplier is being engaged to act as a Utility Valuation Expert, as such term is defined in Pennsylvania Act 12 of 2016, amending Chapter 13 of the Pennsylvania Public Utility Code and the First and Second Implementation Orders entered by the Public Utility Commission at Docket No. M-2016-2543193 (collectively, "Act 12"). Supplier is being engaged with respect to the proposed acquisition by PA-American of the sanitary sewer system assets currently owned by the City of York and York City Sewer Authority. Upon the issuance of a notice to proceed by PA-American, Supplier shall prepare and produce the following appraisal suitable for the Project, including if requested (collectively, the "Services"):

1. An Appraisal (Valuation study) consistent with the 2020-2021 Uniform Standards of Appraisal Practices (USPAP) as of the date requested by PA-American and consistent with the requirements of Act 12.
2. Provide expert witness testimony and documentation as required by Act 12.
3. Provide the documentation required by Act 12 with respect to the Services and the fees charged by Supplier pursuant to this Agreement.
4. If requested by PA-American, perform such other services as are consistent with Supplier's engagement as a Utility Valuation Expert.

Section 2. Duration:
Unless amended, the Project subject to this Agreement is anticipated to be approximately two years in duration and will be performed for the period beginning upon the issuance of a notice to proceed by PA-American and continuing through August 11, 2022. Supplier acknowledges and agrees that it shall not and shall have no obligation to provide the Services until such time as PA-American has issued a notice to proceed. To the extent Act 12 imposes any requirements with respect to the timing for the completion of the Services, the commencement date for such Services shall not be deemed to be any earlier than the date PA-American issues the notice to proceed.

Section 3. Effective & Expiration Dates:
This Agreement sball be effective as of the date set forth in the first paragraph hereof ("Effective Date") and shall continue until the earlier to completion on the Project or August 11, 2022 ("Expiration Date") unless earlier terminated as set forth in this Agreement.

Proprietary and Confidential
This Agreement and information contained therein is not for use or disclosure outside of PA-AMERICAN, its Affiliates, and third party representatives, and Supplier except under written agreement by the contracting parties or as may be required by applicable law or regulation.

Section 4. Personnel to Perform the Services:
Jerome C. Weinert, Principal and Director, shall be in charge of the Services on behalf of Supplier. Supplier shall call upon additional experienced professional staff as required. In the event that this Project or Agreement should not continue for any reason, or should PA-American replace the need for Supplier, PA-American shall give notice as soon as feasibly possible for Supplier to re-deploy their resources elsewhere without any penalty to PA-American.

Both parties recognize the importance of maintaining a continuity of Supplier's personnel on this Project. Supplier agrees that any of its employees, staff, professionals, experts, partners, and/or other personnel: (a) identified as the "Project Team" identified in Section 6 of this Agreement, and/or (b) assigned to this Project subsequent to the execution of this Agreement, shall continue to be staffed on this Project throughout the entire length of time Project Services are provided under this Agreement. Further, said personnel shall be used in the same capacities in which they are initially intended as of the execution date of this Agreement, or as of the date they are assigned to the Project subsequent to execution date of this Agreement, so long as they continue to be employed by Supplier, or so long as PA-American continues to desire their services.

Should Supplier terminate its relationship and/or employment with said personnel, or if said personnel terminates the relationship with Supplier and/or resigns from employment with Supplier, to the extent that Supplier, for any reason, enters into non-compete or similar agreement(s) and/or arrangement (s) with any of its employees, staff, professionals, experts, partners, and/or other personnel, Supplier agrees to immediately release said personnel from non-compete or similar agreement(s) and/or arrangement(s) with respect to being able to work for PA-American in any capacity PA-American sees fit.

Should any or all of Suppliers employees, staff, professionals, experts, partners, and/or other personnel staffed on this Project leave the employ of Supplier during the terms of this Agreement, Supplier agrees to immediately notify PA-American and suggest alternative personnel to be staffed on the Project. In no event shall any Supplier employee, staff, professional, expert, partner, and/or other personnel be assigned to this Project (whether identified in this Section 4, or identified elsewhere subsequent to the execution of this Agreement) without the express written permission and approval by PA-American. Further, PA-American reserves the right to terminate the Services of any of Supplier employee, staff, professional, expert, partner, and/or other personnel working on this Project at any time, and for any reason, without penalty.

Section 5. Location:
Supplier's (AUS Consultants') offices in Harrisburg, Pennsylvania, Mt. Laurel, New Jersey, Greenfield, Wisconsin and various PA-American Company's sites as may be required.

Section 6. Prices:
Supplier fees for the Services are as follows:'

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Appraisal Activity	Preliminary Appraisal	Appraisal completion to a Section 1329 Compliant Appraisal	Total Appraisal	Expenses (not to exceed)
	Fees	Fees	Fees	Expense
Appraisal				
Initial Appraisal	$13,900	$11,100	$25,000	$2,700
Appraisal updates		$3,500	$3,500	$800
Pre-filed Direct testimony related to the above described Valuation studies		$3,000	$3,000	$500

Valuation Activity performed by AUS Consultants staff following the filing of the PUC Application	Hourly Rates plus expenses
Jerome C. Weinert	$250
David Sheffer	175
David Weiler	175
Michael Diedrich	225
Elizabeth A. Weinert	150
Earl Robinson	200
Susan Macchia	50

The expenses in the above tables are for travel and living, report production and shipping.

Supplier recognizes that its fees for the Project are subject to disclosure pursuant to Act 12 and so that Pa-American can include such fees as part of the transaction and closing costs associated with the proposed acquisition of the Project. Supplier further recognizes that its fees shall not exceed five percent (5%) of the fair market value of the assets to be acquired as part of the Project unless such fees are approved by the Pennsylvania Public Utility Commission ("PUC"). Supplier agrees that its fees shall comply with the requirements of Act 12.

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Section 7. Payment:
Payment all undisputed amounts shall be made within 60 days upon PA-American being invoiced each month for all work completed during the prior month, or partial payment upon being invoiced should this appraisal engagement be suspended.

All payment terms are Net 60.

Section 8. Non-Disclosure:

A. The Parties agree as follows:

1. In connection with the Project, PA-American may find it beneficial to disclose to Supplier certain confidential or proprietary information in written, oral or other tangible or intangible forms, which may include, but is not limited to, discoveries, ideas, concepts, know-how, techniques, designs, specifications, drawings, blueprints, tracings, diagrams, models, samples, flow charts, data, computer programs, disks, diskettes, tapes, marketing plans, customer names and other technical, financial or business information (individually and collectively, "Information"). All Information which is disclosed by PA-American to Supplier, whether provided in tangible or intangible form, including, but not limited to, electronic mail or other electronic communications, shall be deemed to be confidential or proprietary. Further, if Information is provided orally, including Information conveyed to an answering machine, voice mail box or similar medium, it shall too be deemed to be confidential or proprietary.

2. Supplier shall:

   a. Hold such Information in confidence with the same degree of care with which Supplier protects its own confidential or proprietary Information, but no less than reasonably prudent care;

   b. Restrict disclosure of the Information solely to its employees, contractors and agents with a need to know such Information, advise those persons of their obligations hereunder with respect to such Information, and assure that such persons are bound by obligations of confidentiality no less stringent than those imposed in this Agreement;

   c. Use the Information only as needed for the purposes of the Project;

   d. Except for the purposes of the Project, not copy, distribute, or otherwise use such Information or knowingly allow anyone else to copy, distribute, or otherwise use such Information; any and all copies shall bear the same notices or legends, if any, as the originals; and,

   e. Upon request, promptly return to PA-American all Information that is in tangible form; as to Information that was disclosed or is stored in intangible form, including, but not limited to electronic mail or other electronic communications, upon request by the PA-American. Supplier shall certify in writing within five (5) business days to PA-American that all such Information has been destroyed or, if the Information was recorded on an erasable storage medium, that Supplier has used reasonable efforts to erase all such Intangible Information.

Proprietary and Confidential
This Agreement and information contained therein is not for use or disclosure outside of PA-AMERICAN, its Affiliates, and third party representatives, and Supplier except under written agreement by the contracting parties or as may be required by applicable law or regulation.

3. Except for Customer Information, Supplier shall have no obligation to preserve the confidential or proprietary nature of any Information which:

   a. Was already known to the Supplier free of any obligation to keep it confidential at the time of its disclosure by PA-American as evidenced by Supplier's written records prepared prior to such disclosure: or

   b. is or becomes publicly known through no wrongful act of Supplier; or

   c. is rightfully received from a third person having no direct or indirect secrecy or confidentiality obligation to PA-American with respect to such Information; or

   d. is independently developed by an employee, contractor or agent of Supplier or a third party not associated with the Project and who did not have any direct or indirect access to the Information. as evidenced by the Supplier's written records: or

   e. is approved for release by written authorization by PA-American; or,

   f. it is required to disclose pursuant to a written request or demand of a duly empowered government agency or a court of competent jurisdiction, provided due notice and an adequate opportunity to intervene is given to PA-American, unless such notice is prohibited by such written request or demand, in which case, the Supplier shall disclose only such Information as is required and shall use reasonable efforts to obtain confidential treatment for any Information that is so disclosed.

4. Any Information relating to the Project that is disclosed by PA-American to Supplier shall remain confidential for five (5) years from the date of termination of the Agreement. Notwithstanding anything to the contrary herein, Customer Information shall remain confidential indefinitely and shall never be disclosed or used without the prior written approval of an authorized representative of PA-American. "Customer Information" includes, but is not limited to, customer name, address, phone number, information concerning a customer's calling patterns, unlisted customer numbers, any other information associated with a customer or with persons in the household of a customer, and any information available to PA-American and/or its suppliers by virtue of PA-American's relationship with its customers as a provider of telecommunications, Internet, information or other services, including, but not limited to, the quantity, technical configuration, location, type, destination, amount of use of telecommunications or other services subscribed to, and information contained on the telephone bills of PA-American's customers pertaining to telephone exchange service, telephone toll service or other services received by a customer of PA-American.

5. Any disclosed Information by PA-American shall be deemed the property of PA-American, who shall retain exclusively rights to such Information. Nothing contained in this Agreement shall be construed as granting or conferring any patent, copyright, trademark or other proprietary rights by license or otherwise in any such Information to Supplier, except for the right to use such Information in accordance with this Agreement.

Proprietary and Confidential
This Agreement and information contained therein is not for use or disclosure outside of PA-AMERICAN, its Affiliates, and third party representatives, and Supplier except under written agreement by the contracting parties or as may be required by applicable law or regulation.

6. NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY, PA-AMERICAN MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY NATURE WHATSOEVER WITH RESPECT TO ANY INFORMATION FURNISHED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR WARRANTIES AGAINST INFRINGEMENT.

7. In the event Supplier discloses, disseminates, or releases any confidential or proprietary Information received from PA-American, except as expressly permitted herein, such disclosure, dissemination, or release shall be deemed a material breach of this Agreement. In the event of such breach, PA-American may demand prompt return of all confidential and proprietary Information previously provided to Supplier and terminate this Agreement. The provisions of this Section are in addition to any other legal rights or remedies PA-American may have in law or in equity.

8. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania, irrespective of its choice of law principles. Both Parties agree to comply with all laws, including, but not limited to, laws and regulations regarding the export of information outside the United States. Supplier shall not knowingly transmit, directly or indirectly, in whole or in part, any Information of PA-American or export, directly or indirectly, any product or Information in contravention of the laws of the United States or the laws of any other country governing the aforesaid activities. Supplier shall not transfer any Information received hereunder or any product made using such Information to any country prohibited from receiving such data or product by the U.S. Department of Commerce Export Administration Regulations without first obtaining a valid export license. In the event Supplier violates the foregoing, Supplier shall defend, indemnify, and hold harmless PA-American from and against any claim, loss, liability, expense or damage including fines or legal fees, incurred PA-American with respect to the export or re-export activities contrary to the foregoing. Notwithstanding any other provision of this Agreement, this Section shall survive any termination or expiration of this Agreement.

Section 9. <u>Ownership of Paid-For Development, Use and Reservation of Rights:</u>

PA-American shall be the exclusive owner of all right, title, and interest in and to all Paid-For Development (defined below), including, without limitation, all Intellectual Property Rights therein and thereto. Supplier shall assign or have assigned to PA-American and hereby assigns to PA-American all Intellectual Property Rights in and to the Paid-For Development. "Paid-For Development" shall mean any and all Items to the extent produced or developed by or on behalf of Supplier or its employees, agents, or direct or indirect contractors or suppliers (and whether completed or in-progress), or forming part of any deliverable, pursuant to this Agreement (including, without limitation under any statement of work, exhibit, order or other document under, subordinate to, or referencing this Agreement or the Project) (collectively "Agreements") for the development of which PA-American has been charged monies in one or more of the Agreements ("Development Fees"). Paid-For Development shall always exclude all Excluded Materials, but shall include

(without limitation) any modifications, alterations or updates of any Excluded Materials ("Enhancements") that otherwise fall within the definition of Paid-For Development ("Paid-For Enhancements"). PA-American's ownership of Paid-For Enhancements shall be subject to Supplier's underlying rights and ownership in Supplier's Excluded Materials.

"Items" shall mean any or all inventions, discoveries, ideas, (whether patentable or not), and all works and materials, including but not limited to products, devices, computer programs, source codes, designs, files, specifications, texts, drawings, processes, data or other information or documentation in preliminary or final form, and all Intellectual Property rights in or to any of the foregoing.

"Excluded Materials" shall mean: i) Supplier's Pre-Existing Materials; ii) Supplier's Independently Developed Materials: and iii) Supplier's Mere Reconfigurations.

"Supplier's Pre-Existing Materials" shall mean those Items owned by Supplier to the extent and in the form that they both existed prior to the date Supplier began any work under this Agreement and were created without any use of any PA-American Items. Supplier's Pre-Existing Materials shall not, however, include Paid-For Enhancements thereto.

"Supplier's Independently Developed Materials" shall mean those Items that have been developed by Supplier, or on Supplier's behalf, both i) without use of any PA-American Items; and ii) independently of any work performed under any Agreements.

"Supplier's Mere Reconfigurations" means those specific reconfigurations of Supplier's pre-existing software performed by Supplier, or on Supplier's behalf, but only to the extent that such reconfiguration is an alteration to such software which is strictly required to permit Supplier's software to function on PA-American's network or service platform. In no event shall Supplier's Mere Reconfigurations include enhancements, modifications, or updates that are not contained in Supplier's Pre-Existing Materials and that add any features, functionality, or capabilities.

"Intellectual Property Rights" means all patents (including all reissues, divisions, continuations, and extensions thereof) and patent applications, trade names, trademarks, service marks, logos, trade dress, copyrights, trade secrets, mask works, rights in technology, know-how, rights in content (including but not limited to performance and synchronization rights), or other intellectual property rights, protected under the laws of any governmental authority having jurisdiction.

Section 10. <u>Right to Terminate:</u>

PA-American has the right to terminate this Agreement, in its entirety or any portion thereof, at any time without penalty. Should PA-American terminate this Agreement at any time, Supplier shall be entitled to keep and collect all fees billed to PA-American prior to the termination date which are not the subject of a dispute between the parties. Further, Supplier shall be entitled to charge, and PA-American agrees to pay for all properly performed Services as of the termination date in accordance with the rates set forth in Section 6 or, in the case of a fixed fee, a prorata share of the monthly billing during the month in which the Agreement was terminated. Said prorata share shall be

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calculated by dividing the total number of days worked by Supplier during the month in which the Agreement is terminated, by the total number of calendar days in the month in which the Agreement was terminated.

Section 11. Invoices/Billing Information:

The Supplier agrees to submit invoices in paper and or electronic form with appropriate references to the PA-American Point of Contact identified in Section 12.

Section 12. Project Manager/Point of Contact/Legal Counsel:

The project manager and/or point of contact of Supplier shall be:

Jerome C. Weinert
Principal and Director
AUS Consultants
Suite 201
8555 West Forest Home Avenue
Greenfield, Wisconsin 53228
E-Mail: weinertj@auswest.net
414-529-5755 (office)
414-529-5750 (fax)
414-698-8371 (cell)

The point of contact for PA-American shall be:

Scott D. Fogelsanger, Senior Business - Development Manager
Pennsylvania-American Water Company
852 Wesley Drive,
Mechanicsburg, PA 17055
717-550-1509 (office)
717-875-2282 (cell)
Email: Scott.Fogelsanger@amwater.com

The Legal Counsel contact for PA-American shall be:

Andrew L. Swope, Vice President, General Counsel
Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055
717-550-1560 (office)
717-574-2691 (cell)
Email: Andrew.Swope@amwater.com

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Section 13. Signatures:

AUS Consultants (Supplier)

Jerome C. Weinert
August 11, 2020

Pennsylvania American Water Company

Scott D. Fogelsanger
August 11, 2020

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Administrative Building

Head Works

Old Compressor Building

Primary Sludge Pumping Station

Primary Clarifier
3-In fore ground 6,7 and 8 (Out of Service)
5- In background in service

Original Stormwater Outflow

A/O Tanks – Train (2) approximately 16 million Incinerator daily flow processed

Complex/Control Room and Training in background.

Storm Water out flow and A/O Tanks are in the foreground.

A/O Tanks (RNR System)

Old Clarifiers (Out of Service)

Inside the Turbine Building

Turbines (3 – 600 kw) turbines

Turbine (5 – 1,000 kw) turbines

Turbine Building

Ostera Building

CAT Engines (Out of service)

Smaller CAT Engine (Out of service)

Sludge Centrifuge

GBT (Gravity belt Thickener)

Clarifier for train 2

Clarifier for train 2

Sludge Pump Building

A/O Tanks train 3

A/O Tanks train 3

Clarifier train 3

Filter Building (Diamond Filters)

Ultra-Violet Disinfection Building

Out Flow

Maintenance Building

Digestors

Notes:

- Average Flow Approximately 7 – 10 MGD * Max 40 – 43 MGD
- Upgraded 7 – 8 Times * Originally built 1915
- Last large upgrade 1993 – 1994, included sand filters and BNR system, cost approximately $60 million.

Last large upgrade 1993 – 1994, included sand filters and
BNR system, cost approximately $60 million.

Notes:

Average Flow Approximately 7 – 10 MGD
Max 40 – 43 MGD
Originally built 1915
Upgraded 7 – 8 Times
Last large upgrade 1993 – 1994, included sand filters and
BNR system, cost approximately $60 million.

Quick Stats Report

Comps Statistics

	Low	Average	Median	High	Count
Price					
For Sale & UC/Pending	$45,000	$1,218,001	$839,700	$5,000,000	30
Sold Transactions	$1,760	$911,748	$450,000	$6,500,000	33
Parcel Size					
For Sale & UC/Pending	0.21 AC	15.87 AC	5.95 AC	116.87 AC	34
Sold Transactions	0.06 AC	12.17 AC	1.59 AC	202.61 AC	49
Price per Acre					
For Sale & UC/Pending	$23,260	$77,740	$150,357	$1,244,344	30
Sold Transactions	$164	$45,943	$116,105	$1,936,000	23
Days on Market					
For Sale & UC/Pending	45	1,433	859	7,775	34
Sold Transactions	26	557	250	4,920	26
Sale Price to Asking Price Ratio					
Sold Transactions	55.70%	81.03%	79.31%	108.33%	6

Totals

For Sale & UC/Pending	Asking Price Total:	$36,540,020	Total For Sale Transactions:	34
Sold Transactions	Total Sales Volume:	$30,087,677	Total Sales Transactions:	64
	Total Included in Analysis:	$66,627,697	Total Included in Analysis:	98

Survey Criteria

basic criteria: Type of Property - Land; Sale Date - from 2/21/2017; Sale Status - Sold, For Sale, Under Contract/Pending; Return and Search on Portfolio Sales as Individual Properties - Yes; Exclude Non-Arms Length Comps - Yes

land specific criteria: Secondary Type - Commercial, Industrial

geography criteria: Geography - User Defined Corridor Search; Geography - User Defined Polygon Search

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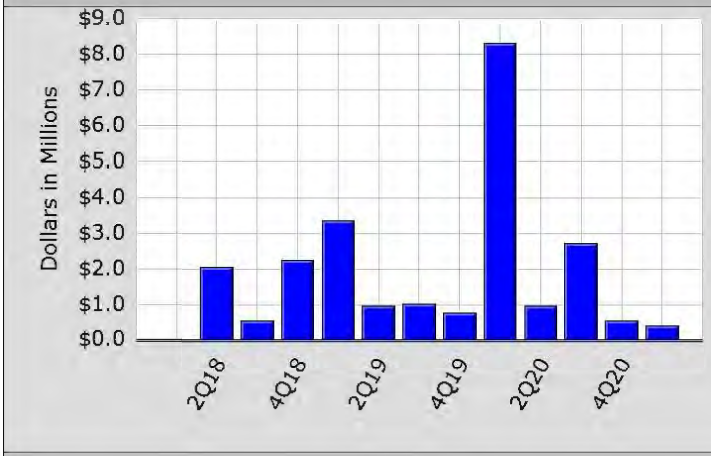
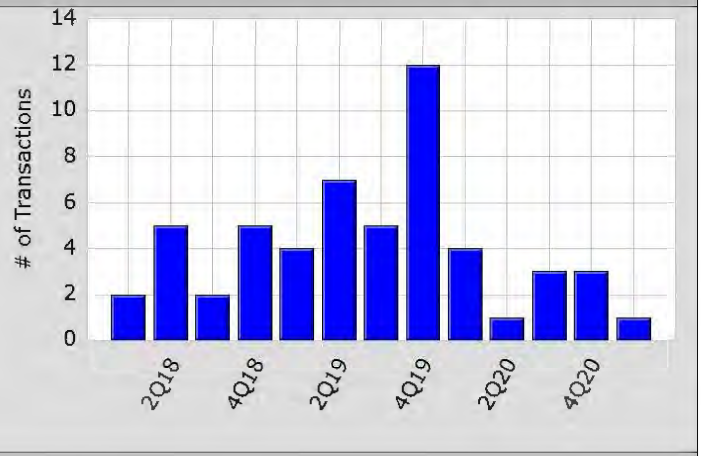
2/21/2021

Trend Report

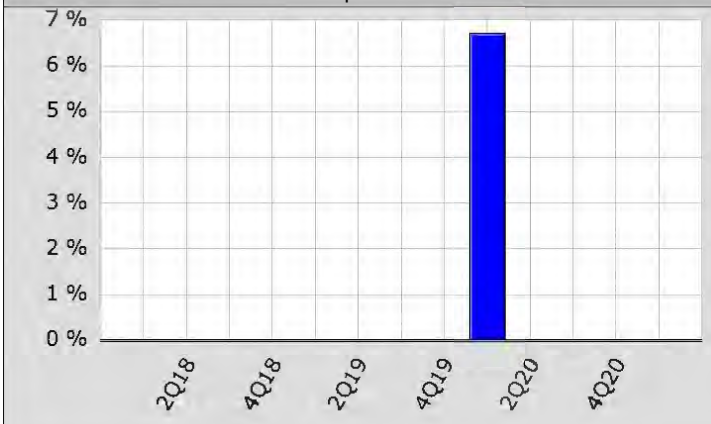
Dollar Volume



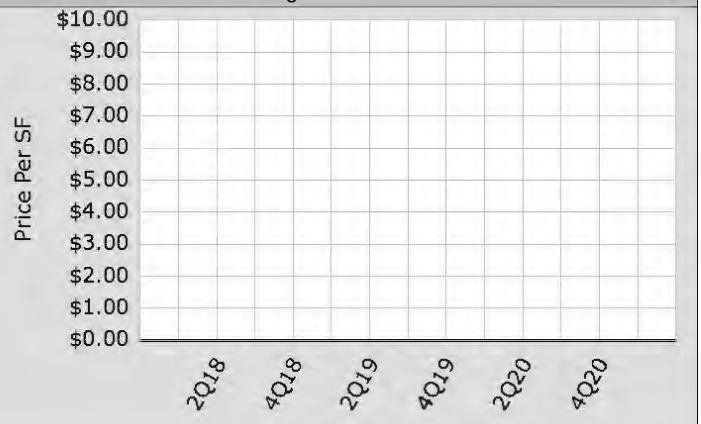
# of Transactions



Cap Rate



Average Price Per SF



Legend:

Current Survey
Sold Transactions

Time Interval - Quarterly

Report Time Frame: 1/1/2018 - 2/21/2021
Sale Date: from 2/21/2017

	Sold Transactions	For Sale & UC/Pending
Number of Transactions	54	34
Total Dollar Volume	$23,955,678	$35,340,020
Total Bldg Square Feet	0	0
Total Land in Acres	565.44	539.66
Total Land in SF	24,630,566	23,507,720
Average Price	$855,560	$1,039,412
Average Number of SF	0	0
Average Price Per Bldg SF	-	-
Median Price Per SF	-	-
Average Number of Acres	13.79	15.87
Average Number of SF(Land)	600,746	691,404
Average Price Per Unit	-	-
Median Price Per Unit	-	-
Average Number of Units	-	-
Average Price Per Acre	$47,669	$75,187
Average Price Per SF(Land)	$1.09	$1.73
Median Price Per Acre	$165,597	$137,407
Median Price Per SF(Land)	$3.80	$3.15

Survey Criteria

basic criteria: Type of Property - Land; Sale Date - from 2/21/2017; Sale Status - Sold, For Sale, Under Contract/Pending; Return and Search on Portfolio Sales as Individual Properties - Yes; Exclude Non-Arms Length Comps - Yes

land specific criteria: Secondary Type - Commercial, Industrial

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2/21/2021

Trend Report

geography criteria: Geography - User Defined Corridor Search; Geography - User Defined Polygon Search

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Trend Report

	1Q18 01/1-3/31/18		2Q18 04/1-6/30/18	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	2	0	5	0
Total Dollar Volume	$0	$0	$2,057,826	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	1.92	-	5.07	-
Total Land in SF	83,635	-	220,849	-
Average Price	-	-	$411,565	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	0.96	-	1.01	-
Average Number of SF(Land)	41,818	-	44,170	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	-	-	$405,883	-
Average Price Per SF(Land)	-	-	$9.32	-
Median Price Per Acre	-	-	$476,190	-
Median Price Per SF(Land)	-	-	$10.93	-

	3Q18 07/1-9/30/18		4Q18 10/1-12/31/18	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	2	0	5	0
Total Dollar Volume	$549,000	$0	$2,257,436	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	87.07	-	24.24	-
Total Land in SF	3,792,769	-	1,055,894	-
Average Price	$549,000	-	$564,359	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	43.54	-	6.06	-
Average Number of SF(Land)	1,896,385	-	263,974	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	$6,772	-	$386,772	-
Average Price Per SF(Land)	$0.16	-	$8.88	-
Median Price Per Acre	$6,772	-	$1,591,091	-
Median Price Per SF(Land)	$0.16	-	$36.53	-

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Trend Report

	1Q19 01/1-3/19 1Q19 01/1-3/31/19		2Q19 04/1-6/19 2Q19 04/1-6/30/19	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	4	0	7	0
Total Dollar Volume	$3,350,015	$0	$964,000	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	95.40	-	99.79	-
Total Land in SF	4,155,624	-	4,346,852	-
Average Price	$1,675,008	-	$482,000	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	23.85	-	14.26	-
Average Number of SF(Land)	1,038,906	-	620,979	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	$36,378	-	$63,130	-
Average Price Per SF(Land)	$0.84	-	$1.45	-
Median Price Per Acre	$117,425	-	$43,575	-
Median Price Per SF(Land)	$2.70	-	$1.00	-

	3Q19 07/1-9/19 3Q19 07/1-9/30/19		4Q19 10/1-12/19 4Q19 10/1-12/31/19	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	5	0	12	0
Total Dollar Volume	$1,020,500	$0	$780,000	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	2.09	-	1.79	-
Total Land in SF	91,040	-	77,972	-
Average Price	$340,167	-	$390,000	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	2.09	-	0.22	-
Average Number of SF(Land)	91,040	-	9,747	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	$155,502	-	$308,333	-
Average Price Per SF(Land)	$3.57	-	$7.08	-
Median Price Per Acre	$155,502	-	$308,333	-
Median Price Per SF(Land)	$3.57	-	$7.08	-

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Trend Report

	1Q20 01/1-3/31/20		2Q20 04/1-6/30/20	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	4	0	1	0
Total Dollar Volume	$8,312,000	$0	$958,214	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	209.11	-	15.00	-
Total Land in SF	9,108,832	-	653,400	-
Average Price	$2,078,000	-	$958,214	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	104.56	-	15.00	-
Average Number of SF(Land)	4,554,416	-	653,400	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	$36,545	-	$63,881	-
Average Price Per SF(Land)	$0.84	-	$1.47	-
Median Price Per Acre	$103,887	-	$63,881	-
Median Price Per SF(Land)	$2.38	-	$1.47	-

	3Q20 07/1-9/30/20		4Q20 10/1-12/31/20	
	Sold Transaction	For Sale & UC/Pending	Sold Transaction	For Sale & UC/Pending
Number of Transactions	3	0	3	0
Total Dollar Volume	$2,726,687	$0	$560,000	$0
Total Bldg Square Feet	0	0	0	0
Total Land in Acres	14.92	-	9.04	-
Total Land in SF	649,915	-	393,782	-
Average Price	$1,363,344	-	$560,000	-
Average Number of SF	0	0	0	0
Average Price Per Bldg SF	-	-	-	-
Median Price Per SF	-	-	-	-
Average Number of Acres	4.97	-	4.52	-
Average Number of SF(Land)	216,638	-	196,891	-
Average Price Per Unit	-	-	-	-
Median Price Per Unit	-	-	-	-
Average Number of Units	-	-	-	-
Average Price Per Acre	$187,530	-	-	-
Average Price Per SF(Land)	$4.31	-	-	-
Median Price Per Acre	$510,408	-	-	-
Median Price Per SF(Land)	$11.72	-	-	-

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Trend Report

	1Q21 01/1-3/31/21	1Q21 01/1-2/21/21		
	Sold Transaction	For Sale & UC/Pending		
Number of Transactions	1	34		
Total Dollar Volume	$420,000	$35,340,020		
Total Bldg Square Feet	0	0		
Total Land in Acres	-	539.66		
Total Land in SF	-	23,507,720		
Average Price	$420,000	$1,039,412		
Average Number of SF	0	0		
Average Price Per Bldg SF	-	-		
Median Price Per SF	-	-		
Average Number of Acres	-	15.87		
Average Number of SF(Land)	-	691,404		
Average Price Per Unit	-	-		
Median Price Per Unit	-	-		
Average Number of Units	-	-		
Average Price Per Acre	-	$75,187		
Average Price Per SF(Land)	-	$1.73		
Median Price Per Acre	-	$137,407		
Median Price Per SF(Land)	-	$3.15		

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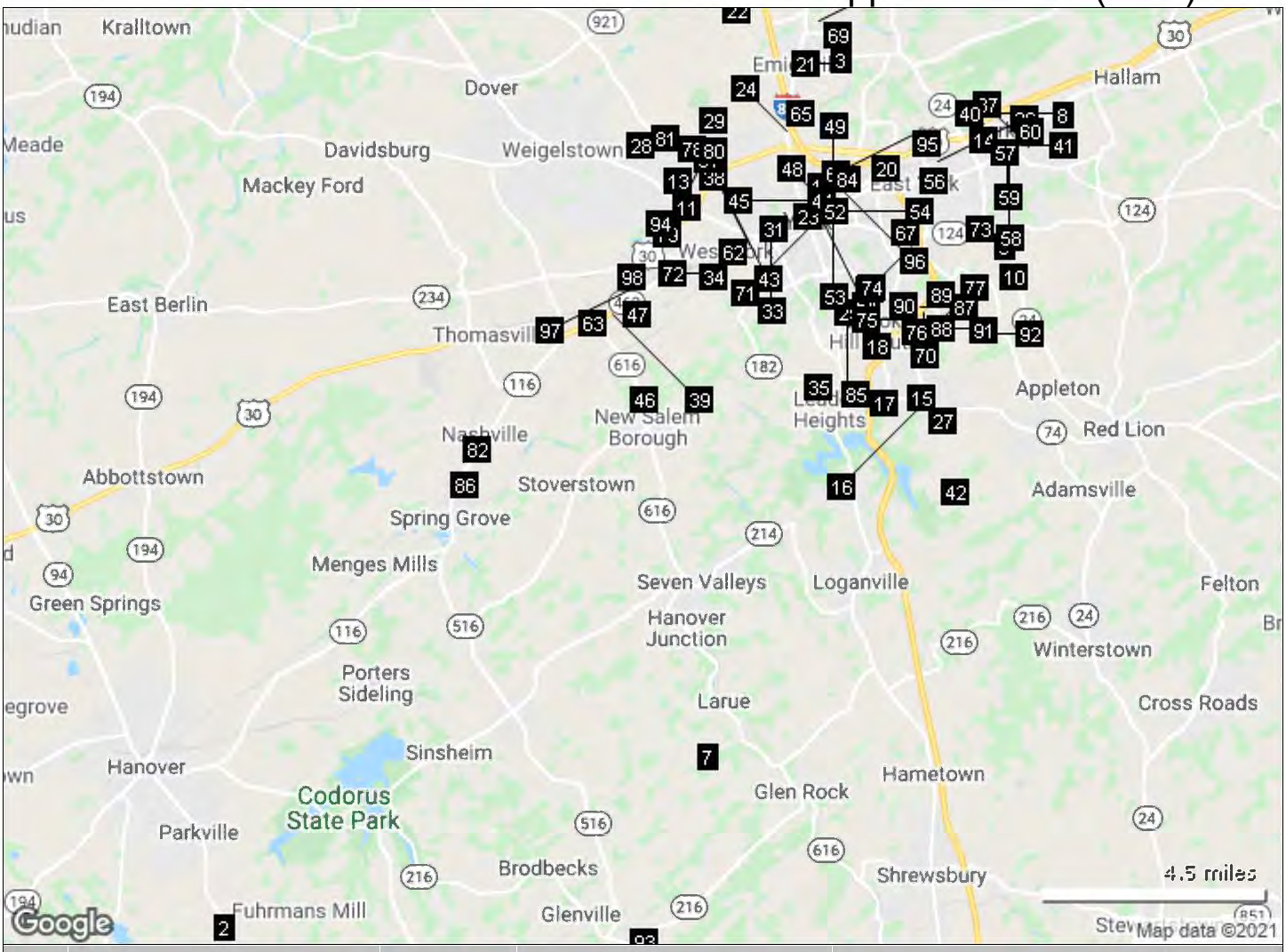

	Address	City	Property Info	Sale Info
1	145 N Albemarle St (Part of Multi-Property Sale)	York	1.56 AC Land	Sold: -
2	2217-2233 Baltimore Pike	Hanover	4.26 AC Land	For Sale: $1,750,000 ($410,798.12/AC)
3	Blackridge Rd (Part of Portfolio)	York	1.17 AC Land	Sold: -
4	0 Brenneman Rd	Glen Rock	78 AC Land	Sold: $549,000 ($6,771.93/AC)
5	0 Brenneman Rd	Glen Rock	78 AC Land	Sold: $50,015 ($641.22/AC)
6	0 Brenneman Rd	Glen Rock	78 AC Land	Sold: -
7	0 Brenneman Rd	Glen Rock	78 AC Land	Sold: -
8	66 Campbell Rd	Hellam	2.67 AC Land	Sold: $310,000 ($116,104.87/AC)
9	1001 Cape Horn Rd	York	1.31 AC Land	For Sale: $650,000 ($496,183.21/AC)
10	2410-2430 Cape Horn Rd	York	8.25 AC Land	For Sale: $1,700,000 ($206,060.61/AC)
11	1407 Carlisle Rd	York	0.55 AC Land	Sold: $875,100 ($1,591,090.91/AC)
12	Church Rd	Emigsville	11.34 AC Land	For Sale: $1,150,000 ($101,410.93/AC)
13	Colony Rd	York	6.75 AC Land	Under Contract: w/Asking Price of $910,000 ($134,814.81/AC)
14	Concord Rd	York	3.20 AC Land	For Sale: -

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15	2603 Course Rd	York	1.74 AC Land	Sold: $1,626,687 ($934,877.59/AC)
16	2623 Course Rd	York	1.06 AC Land	Sold: -
17	170 Crossway Dr	York	12.80 AC Land	Sold: $1,100,000 ($85,937.50/AC)
18	1 Dew Drop Rd	York	2.02 AC Land	Sold: -
19	East & St Paul Street @ St Paul	York	10.70 AC Land	Sold: $33,100 ($3,093.46/AC)
20	East & St Paul Street @ St Paul	York	10.70 AC Land	Sold: $1,760 ($164.49/AC)
21	Emig Mill Rd @ Locust Ln (Part of Portfolio)	Emigsville	29 AC Land	Sold: -
22	Farmbrook Ln	York	5.93 AC Land	For Sale: -
23	105 N George St	York	0.13 AC Land	Sold: $260,000 ($2,000,000/AC)
24	2024 N George St	York	0.64 AC Land	For Sale: $729,000 ($1,139,062.50/AC)
25	2605 S George St	York	1.17 AC Land	Sold: $420,000
26	581 Green Valley Rd	York	10.40 AC Land	Sold: $200,000
27	581 Green Valley Rd	York	10.40 AC Land	Sold: -
28	560 Greenbriar Rd	York	2.71 AC Land	For Sale: $249,000 ($91,881.92/AC)
29	772 Greenbriar Rd	York	6.82 AC Land	Under Contract: w/Asking Price of $350,000 ($51,319.65/AC)
30	130 N Hartley St (Part of Multi-Property Sale)	York	0.33 AC Land	Sold: -
31	130 N Hartley St (Part of Multi-Property Sale)	York	0.33 AC Land	Sold: $9,939 ($30,118.18/AC)
32	222 N Hartley St (Part of Multi-Property Sale)	York	1.59 AC Land	Sold: -
33	222 N Hartley St (Part of Multi-Property Sale)	York	1.59 AC Land	Sold: $47,887 ($30,117.61/AC)
34	Hokes Mill Rd @ West King Street	York	12 AC Land	For Sale: -
35	Indian Rock Dam Rd	York	0.86 AC Land	For Sale: $498,000 ($579,069.77/AC)
36	Industrial Hwy	York	14.09 AC Land	Sold: $3,300,000 ($234,208.66/AC)
37	3000 Innovation Dr	York	15 AC Land	Sold: $958,214 ($63,880.93/AC)
38	Kenneth Rd	York	0.75 AC Land	Sold: -
39	Lincoln Hwy	York	5.96 AC Land	For Sale: $834,400 ($140,000/AC)
40	4100 Lincoln Hwy	York	10.02 AC Land	Under Contract: w/Asking Price of $790,000 ($78,842.32/AC)
41	Lincoln Hwy (Part of Portfolio)	York	4.67 AC Land	Sold: $934,132 ($200,028.27/AC)
42	Lioners Creek Rd	Dallastown	50.99 AC Land	For Sale: $1,937,620 ($38,000/AC)
43	1605 Loucks Rd	York	128 AC Land	Sold: $5,362,139
44	00 Loucks Mill	York	0.21 AC Land	For Sale: $45,000 ($214,285.71/AC)
45	0 Loucks Mill	York	0.28 AC Land	For Sale: $45,000 ($160,714.29/AC)
46	N Main St @ Robinhood Drive	York	1.48 AC Land	Sold: $220,000
47	E Market St	York	1.05 AC Land	Sold: $1,000,000 ($952,380.95/AC)
48	417 E Market St (Part of Multi-Property Sale)	York	0.06 AC Land	Sold: -
49	419 E Market St (Part of Multi-Property Sale)	York	0.07 AC Land	Sold: -

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50	421 E Market St (Part of Multi-Property Sale)	York	0.06 AC Land	Sold: -
51	423 E Market St	York	0.06 AC Land	Sold: $410,000
52	423 E Market St (Part of Multi-Property Sale)	York	0.06 AC Land	Sold: -
53	425 E Market St (Part of Multi-Property Sale)	York	0.06 AC Land	Sold: -
54	427 E Market St (Part of Multi-Property Sale)	York	0.08 AC Land	Sold: -
55	2401 E Market St (Part of Multi-Property Sale)	York	0.48 AC Land	Sold: -
56	2401 E Market St	York	0.48 AC Land	Sold: $425,000
57	3603 E Market St	York	1.20 AC Land	Sold: $370,000 ($308,333.33/AC)
58	3630 E Market St	York	1.05 AC Land	Sold: $500,000 ($476,190.48/AC)
59	3630 E Market St	York	1.05 AC Land	Sold: $500,000 ($476,190.48/AC)
60	3883 E Market St	York	7.29 AC Land	For Sale: $1,500,000 ($205,761.32/AC)
61	1001 W Market St	York	2.21 AC Land	For Sale: $2,750,000 ($1,244,343.89/AC)
62	1320 W Market St	York	0.62 AC Land	For Sale: $300,000 ($483,870.97/AC)
63	4155 W Market St	York	1.95 AC Land	Sold: -
64	220 E Mason Ave (Part of Multi-Property Sale)	York	0.38 AC Land	Sold: $0
65	1 Masonic Dr	York	3.33 AC Land	Sold: -
66	1620 Memory Ln	York	6.80 AC Land	For Sale: $2,400,000 ($352,941.18/AC)
67	1643 Mount Rose Ave	York	1.72 AC Land	For Sale: $375,000 ($218,023.26/AC)
68	1788 Mt Rose Ave	York	48.50 AC Land	For Sale: -
69	130-145 Mundis Race Rd	York	202.61 AC Land	Sold: $6,500,000 ($32,081.34/AC)
70	Pauline Dr	York	1.89 AC Land	For Sale: $1,000,000 ($529,100.53/AC)
71	Philadelphia Rd (Part of Multi-Property Sale)	York	0.20 AC Land	Sold: -
72	1751 W Poplar Ter (Part of Multi-Property Sale)	York	0.21 AC Land	Sold: -
73	2841 E Prospect Rd (Part of Multi-Property Sale)	York	6 AC Land	Sold: -
74	1701-1719 S Queen St	York	6.50 AC Land	Sold: $1,142,000 ($175,692.31/AC)
75	2149 S Queen St (Part of Multi-Property Sale)	York	0.54 AC Land	Sold: $188,204
76	2181 S Queen St	York	0.92 AC Land	For Sale: $1,100,000 ($1,195,652.17/AC)
77	2199 S Queen St	York	28 AC Land	Sold: -
78	Roosevelt Ave	York	47.12 AC Land	For Sale: $1,790,000 ($37,988.12/AC)
79	1675 Roosevelt Ave (Part of Multi-Property Sale)	York	3 AC Land	Sold: -
80	1685 Roosevelt Ave (Part of Multi-Property Sale)	York	3 AC Land	Sold: -
81	2217 Roosevelt Ave	York	2.66 AC Land	For Sale: $347,000 ($130,451.13/AC)
82	1677 Route 116	Spring Grove	2.09 AC Land	Sold: $325,000 ($155,502.39/AC)
83	350 N Sherman St	York	5.71 AC Land	Sold: $560,000

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84	350 N Sherman St	York	5.71 AC Land	Sold: -
85	2650 Southfield Dr (Part of Multi-Property Sale)	York	1.44 AC Land	Sold: -
86	1036 Sprenkle Rd	Spring Grove	10.73 AC Land	For Sale: $1,150,000 ($107,176.14/AC)
87	Springwood Rd	York	14 AC Land	Under Contract: w/Asking Price of $845,000 ($60,357.14/AC)
88	Springwood Rd @ Pauline Dr	York	114 AC Land	For Sale: $5,000,000 ($43,859.65/AC)
89	Springwood Rd @ Interstate 83	York	116.87 AC Land	For Sale: $5,000,000 ($42,782.58/AC)
90	2064 Springwood Rd	York	2.34 AC Land	Sold: $450,000
91	2640 Springwood Rd	York	5.99 AC Land	Sold: $495,500
92	2668 Springwood Rd	York	52.73 AC Land	Sold: -
93	3899 Sticks Rd	Glen Rock	1.98 AC Land	Sold: $34,000 ($17,171.72/AC)
94	Taxville Rd @ Baker Road	York	29.88 AC Land	For Sale: $695,000 ($23,259.71/AC)
95	2000 Whiteford Rd	York	1.90 AC Land	Under Contract: w/Asking Price of $550,000 ($289,473.68/AC)
96	501 Windsor St	York	1.02 AC Land	For Sale: $100,000 ($98,039.22/AC)
97	Zarfoss Dr	York	18.89 AC Land	Sold: -
98	400 Zarfoss Dr	York	13.29 AC Land	Sold: $930,000 ($69,977.43/AC)

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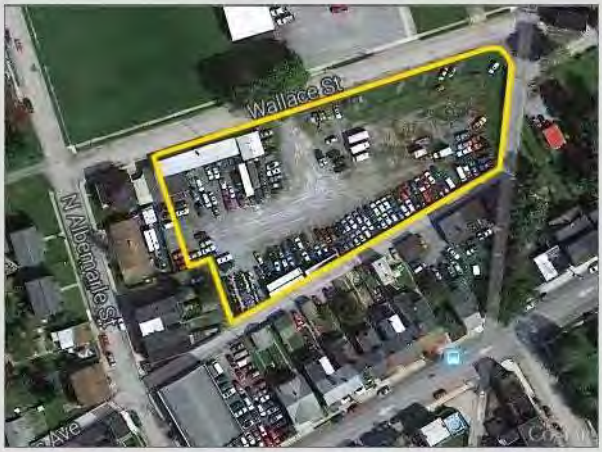
145 N Albemarle St

York, PA 17403

Industrial Land of 1.56 AC Sold on 4/19/2017 - Public Record (Part of Multi-Property)



buyer

Outhouse Storage Llc
1251 Wallace St
York, PA 17403

seller

1001 Llc

vital data

Sale Date:	4/19/2017	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000020842
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	3914877	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses	- Taxes	$8,879
	- Operating Expenses	
	Total Expenses	$8,879

	Gross	Net
Acres:	1.56 AC	-
Price/Acre:	-	-
SF:	67,954 SF	-
Price/SF:	-	-

financing

Listing Broker

Buyer Broker

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2217-2233 Baltimore Pike

Reichart Properties
Hanover, PA 17331

Land of 4.26 AC is for sale at $1,750,000 ($410,798.12/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	943 days	Asking Price:	$1,750,000
Conditions:	Build to Suit	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	52-000-BD-0113-00-00000
		Property Type:	Land
		Proposed Use:	Commercial, Industrial, Retail, Mixed Use, MultiFamily, Auto Dealership, Auto Repair, Bank, Car Wash, Convenience Store, Fast Food, Hotel, Medical, Motel, Religious Facility, Restaurant, Retail Warehouse, Self-Storage, Service Station, Storefront, Storefront Retail/Office, Storefrnt Retail/Residntl, Strip Center

income expense data

	Gross	Net
Acres:	4.26 AC	-
Price/Acre:	-	-
SF:	185,566 SF	-
Price/SF:	-	-

Listing Broker

Keller Williams Keystone Realty
1446 S Baltimore St
Hanover, PA 17331
(717) 634-5921
Neil Reichart

Buyer Broker

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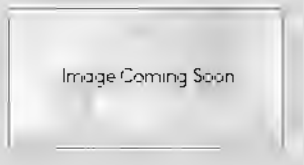
Blackridge Rd

York, PA 17406

Industrial Land of 1.17 AC Sold on 6/14/2019 - Research Complete (Part of Portfolio)



buyer

CRG
c/o Tika Schmidt
2199 Innerbelt Business Center Dr
Saint Louis, MO 63114
(314) 429-5100

seller

Core5 Industrial Partners
1230 Peachtree St NE
Atlanta, GA 30309
(404) 262-5405

vital data

Sale Date:	6/14/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000029654
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4844468	Zoning:	I
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses	- Taxes	$1,771
	- Operating Expenses	
	Total Expenses	$1,771

	Gross	Net
Acres:	1.17 AC	1.17 AC
Price/Acre:	-	-
SF:	50,965 SF	50,965 SF
Price/SF:	-	-

financing

Listing Broker

No Listing Broker on Deal

Buyer Broker

No Buyer Broker on Deal

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0 Brenneman Rd

Glen Rock, PA 17327

Commercial Land of 78 AC Sold on 9/6/2018 for $549,000 - Public Record

buyer

Jeffrey Inch

seller

Lopiccolo Anthony T & Jane S

vital data

Sale Date:	9/6/2018	Sale Price:	$549,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000039890
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4532249	Zoning:	AG
		Submarket:	York County
		Map Page:	-
		Parcel No:	22-000-DH-0062-00-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$169
		- Operating Expenses	
		Total Expenses	$169

	Gross	Net
Acres:	78 AC	-
Price/Acre:	$7,038.46	-
SF:	3,397,680 SF	-
Price/SF:	$0.16	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brian Parrish

Buyer Broker

Keller Williams Keystone Realty
1620 S Queen St
York, PA 17403
(717) 755-5599
Jeff Inch

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0 Brenneman Rd

Glen Rock, PA 17327

Commercial Land of 78 AC Sold on 3/18/2019 for $50,015 - Public Record

buyer

Sarah Inch

seller

Wright Brandon C

vital data

Sale Date:	3/18/2019	Sale Price:	$50,015
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000011174
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4724413	Zoning:	AG
		Submarket:	York County
		Map Page:	-
		Parcel No:	22-000-DH-0062-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$169
		- Operating Expenses	
		Total Expenses	$169

	Gross	Net
Acres:	78 AC	-
Price/Acre:	$641.22	-
SF:	3,397,680 SF	-
Price/SF:	$0.01	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	9/6/2018 (000000039890)
Sale Price:	$549,000
CompID:	4532249

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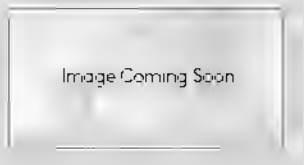
0 Brenneman Rd

Glen Rock, PA 17327

Commercial Land of 78 AC Sold on 9/19/2019 - Public Record



buyer

Sarah R Inch

seller

vital data

Sale Date:	9/19/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000042061
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4903576	Zoning:	AG
		Submarket:	York County
		Map Page:	-
		Parcel No:	22-000-DH-0062-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$169
		- Operating Expenses	
		Total Expenses	$169

	Gross	Net
Acres:	78 AC	-
Price/Acre:	-	-
SF:	3,397,680 SF	-
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	3/18/2019 (000000011174)
Sale Price:	$50,015
CompID:	4724413

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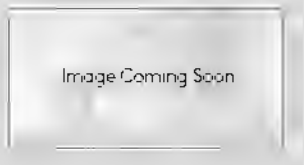
0 Brenneman Rd

Glen Rock, PA 17327

Commercial Land of 78 AC Sold on 10/3/2019 - Public Record



buyer

Sarah R Inch

seller

vital data

Sale Date:	10/3/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000045736
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4933229	Zoning:	AG
		Submarket:	York County
		Map Page:	-
		Parcel No:	22-000-DH-0062-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$169
		- Operating Expenses	
		Total Expenses	$169

	Gross	Net
Acres:	78 AC	-
Price/Acre:	-	-
SF:	3,397,680 SF	-
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	9/19/2019 (000000042061)
Sale Price:	-
CompID:	4903576

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66 Campbell Rd

Hellam, PA 17406

Commercial Land of 2.67 AC Sold on 7/19/2017 for $310,000 - Public Record

buyer

66 Campbell Road Llc
449 Leaman Ln
York, PA 17406

seller

Wesley York Ents Llc

vital data

Sale Date:	7/19/2017	Sale Price:	$310,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000032526
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	3966471	Zoning:	C/I
		Submarket:	York County
		Map Page:	-
		Parcel No:	31-000-KJ-0112-E0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$5,347
		- Operating Expenses	
		Total Expenses	$5,347

	Gross	Net
Acres:	2.67 AC	-
Price/Acre:	$116,104.87	-
SF:	116,305 SF	-
Price/SF:	$2.67	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Chris Seitz

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Chris Seitz

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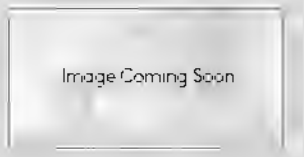
1001 Cape Horn Rd

1001-21 Cape Horn Rd
York, PA 17402

Land of 1.31 AC is for sale at $650,000 ($496,183.21/AC)



buyer

For Sale

seller

-

vital data

Days on Market:	606 days	Asking Price:	$650,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	350 feet on Cape Horn Road	Topography:	Sloping
		Improvements	-
		Off-Site Improv:	
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	MultiFamily, Religious Facility

income expense data

	Gross	Net
Acres:	1.31 AC	-
Price/Acre:	-	-
SF:	57,064 SF	-
Price/SF:	-	-

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

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2410-2430 Cape Horn Rd

York, PA 17402

Land of 8.25 AC is for sale at $1,700,000 ($206,060.61/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,319 days	Asking Price:	$1,700,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	165 feet on Cape Horn Road	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-39-0092-B0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	8.25 AC	0.02 AC
Price/Acre:	-	-
SF:	359,370 SF	823 SF
Price/SF:	-	-

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

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1407 Carlisle Rd

York, PA 17408

Commercial Land of 0.55 AC Sold on 12/28/2018 for $875,100 - Research Complete

buyer

Dusan & Kathleen Bratic
101 S US Route 15
Dillsburg, PA 17019
(717) 432-9706

seller

S & T Bank
309 Main St
Irwin, PA 15642
(724) 863-3100

vital data

Sale Date:	12/28/2018	Sale Price:	$875,100
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000056457
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4639601	Zoning:	CM
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-JH-0056-B0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$3,530
		- Operating Expenses	
		Total Expenses	

	Gross	Net
Acres:	0.55 AC	-
Price/Acre:	$1,591,090.91	-
SF:	23,958 SF	-
Price/SF:	$36.53	-

financing

Listing Broker

Buyer Broker

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Church Rd

York County Industrial Park - York County Industrial Pk
Emigsville, PA 17318

Land of 11.34 AC is for sale at $1,150,000 ($101,410.93/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	2,155 days	Asking Price:	$1,150,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	Ind
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

	Gross	Net
Acres:	11.34 AC	-
Price/Acre:	-	-
SF:	493,970 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

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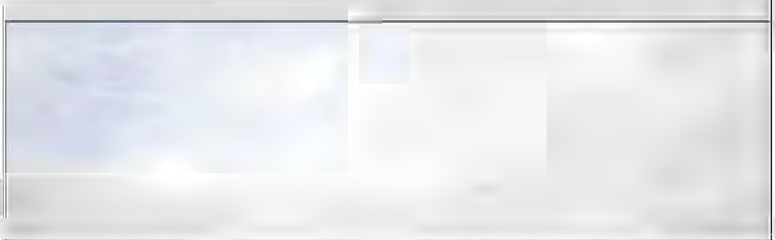
Colony Rd

York, PA 17408

Land of 6.75 AC is for sale at $910,000 ($134,814.81/AC)



buyer

For Sale

seller

-

vital data

Days on Market:	384 days	Asking Price:	$910,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	375 feet on Colony Rd	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Light Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-JH-0056-T0-00000
		Property Type:	Land
		Proposed Use:	Commercial, Industrial, Office

income expense data

	Gross	Net
Acres:	6.75 AC	6.75 AC
Price/Acre:	-	-
SF:	294,030 SF	294,030 SF
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

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Concord Rd

Vacant Land/Lot 8 - Meadowlands Business Park
York, PA 17402

Land of 3.20 AC is for sale

buyer

For Sale

seller

-

vital data

Days on Market:	7,774 days	Asking Price:	-
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	450-92362-0-0000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	3.20 AC	-
Price/Acre:	-	-
SF:	139,523 SF	-
Price/SF:	-	-

Listing Broker

Kinsley Properties
6259 Reynolds Mill Rd
Seven Valleys, PA 17360
(717) 741-8404
Daniel S. Hawks

Buyer Broker

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2603 Course Rd

York, PA 17402

Commercial Land of 1.74 AC Sold on 8/3/2020 for $1,626,687 - Sold for Land Value - Research Complete

buyer

Iovino, Louis
694 Jones Rd
Williamstown, NJ 08094
(856) 728-1540

seller

Major, Michael
1858 Ebony Dr
York, PA 17402
(717) 428-0288

vital data

Sale Date:	8/3/2020	Sale Price:	$1,626,687
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	$626,687
Exchange:	No	Pct Down:	38.5%
Conditions:	-	Doc No:	000000035486
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	326 feet on Course Rd 364 feet on ...	Off-Site Improv:	-
Comp ID:	5239944	Zoning:	CS
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-HI-0005-H0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses	- Taxes	$5,441
	- Operating Expenses	
	Total Expenses	$5,441

	Gross	Net
Acres:	1.74 AC	1.74 AC
Price/Acre:	$934,877.59	$934,877.59
SF:	75,794 SF	75,794 SF
Price/SF:	$21.46	$21.46

financing

1st Truist Bank
Bal/Pmt: $1,000,000

Listing Broker

CBRE, Inc
555 E Lancaster Ave
Radnor, PA 19087
(610) 251-0820
Michael Shover, Matthew Gorman

Buyer Broker

CBRE, Inc
555 E Lancaster Ave
Radnor, PA 19087
(610) 251-0820
Michael Shover, Matthew Gorman

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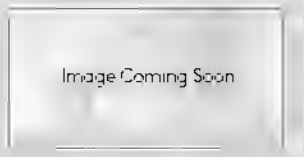
2623 Course Rd

York, PA 17402

Commercial Land of 1.06 AC Sold on 12/19/2019 - Public Record



buyer

seller

vital data

Sale Date:	12/19/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	419 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4999620	Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	1.06 AC	-
Price/Acre:	-	-
SF:	46,174 SF	-
Price/SF:	-	-

financing

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

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170 Crossway Dr

York, PA 17402

Commercial Land of 12.80 AC Sold on 7/15/2020 for $1,100,000

buyer

Samllee Brewing, LLC

seller

Presbyterian Homes Inc

vital data

Sale Date:	7/15/2020	Sale Price:	$1,100,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	253 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Electricity, Gas, Sewer, Water
Comp ID:	5179306	Zoning:	Commercial Shopping Dist
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-36-0210-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$3,899
		- Operating Expenses	
		Total Expenses	$3,899

	Gross	Net
Acres:	12.80 AC	-
Price/Acre:	$85,937.50	-
SF:	557,568 SF	-
Price/SF:	$1.97	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Dennis Neiman

financing

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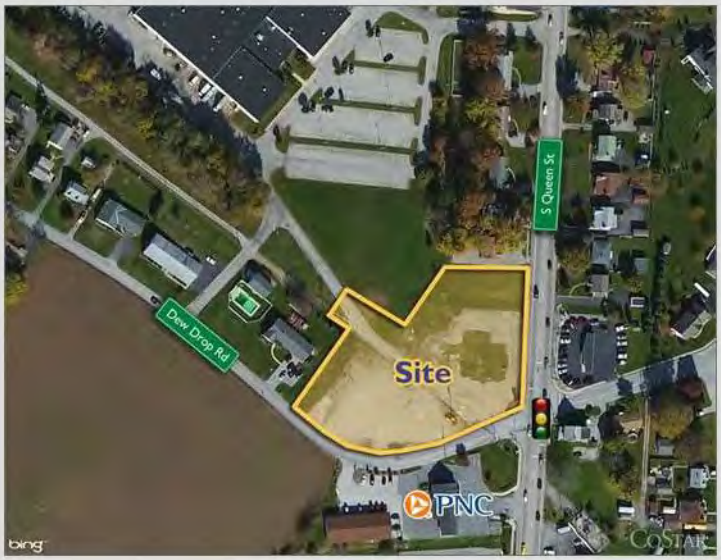
1 Dew Drop Rd

York, PA 17402

Commercial Land of 2.02 AC Sold on 7/14/2017 - Public Record



buyer

seller

vital data

Sale Date:	7/14/2017	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	102 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	3955835	Zoning:	Commercial Shopping
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	2.02 AC	2.02 AC
Price/Acre:	-	-
SF:	87,991 SF	87,991 SF
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David Bode, CCIM, SIOR

Buyer Broker

financing

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East & St Paul Street @ St Paul

York, PA 17403

Industrial Land of 10.70 AC Sold on 11/27/2017 for $33,100 - Public Record

buyer

St. Paul Street Associates, Inc.
2675 Eastern Blvd
York, PA 17402
(717) 757-4565

seller

Ramsay Larry M & Richard W

vital data

Sale Date:	11/27/2017	Sale Price:	$33,100
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000003430
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Rolling
Lot Dimensions:	Irregular	Improvements:	-
Frontage	1,186 feet on I 83	Off-Site Improv:	Cable, Electricity, Gas, Irrigation, ...
Comp ID:	4132294	Zoning:	I
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-JI-0033-A0-00000
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses	- Taxes	$1,063
	- Operating Expenses	
	Total Expenses	$1,063

	Gross	Net
Acres:	10.70 AC	-
Price/Acre:	$3,093.46	-
SF:	466,092 SF	-
Price/SF:	$0.07	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	5/3/2017 (000000020849)
Sale Price:	$1,760
CompID:	4223133

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East & St Paul Street @ St Paul

York, PA 17403

Industrial Land of 10.70 AC Sold on 5/3/2017 for $1,760 - Public Record

buyer

Mary Richardson
3108 Marnie Ln
Bakersfield, CA 93306
(661) 871-1412

seller

Rowean Susan S

vital data

Sale Date:	5/3/2017	Sale Price:	$1,760
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000020849
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Rolling
Lot Dimensions:	Irregular	Improvements:	-
Frontage	1,186 feet on I 83	Off-Site Improv:	Cable, Electricity, Gas, Irrigation, ...
Comp ID:	4223133	Zoning:	I
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-JI-0033-A0-00000
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses	- Taxes	$1,063
	- Operating Expenses	
	Total Expenses	$1,063

	Gross	Net
Acres:	10.70 AC	-
Price/Acre:	$164.49	-
SF:	466,092 SF	-
Price/SF:	$0.00	-

Listing Broker

Buyer Broker

financing

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Emig Mill Rd @ Locust Ln

Emigsville, PA 17318

Industrial Land of 29 AC Sold on 6/14/2019 - Research Complete (Part of Portfolio)

buyer

CRG
c/o Tika Schmidt
2199 Innerbelt Business Center Dr
Saint Louis, MO 63114
(314) 429-5100

seller

Core5 Industrial Partners
1230 Peachtree St NE
Atlanta, GA 30309
(404) 262-5405

vital data

Sale Date:	6/14/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000029654
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	Farm Land
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4844468	Zoning:	Ind
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses	- Taxes	$1,771
	- Operating Expenses	
	Total Expenses	$1,771

	Gross	Net
Acres:	29 AC	29 AC
Price/Acre:	-	-
SF:	1,263,240 SF	1,263,240 SF
Price/SF:	-	-

financing

Listing Broker

No Listing Broker on Deal

Buyer Broker

No Buyer Broker on Deal

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Farmbrook Ln

Vacant Land
York, PA 17406

Land of 5.93 AC is for sale

buyer

For Sale

seller

-

vital data

Days on Market:	7,775 days	Asking Price:	-
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	3600027002600 [Partial List]
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	5.93 AC	-
Price/Acre:	-	-
SF:	258,311 SF	-
Price/SF:	-	-

Listing Broker

Kinsley Properties
6259 Reynolds Mill Rd
Seven Valleys, PA 17360
(717) 741-8404
Daniel S. Hawks

Buyer Broker

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105 N George St

105 North George Street
York, PA 17401

Commercial Land of 0.13 AC Sold on 12/20/2018 for $260,000 - Public Record

buyer

105 North George Llc
29 E Philadelphia St
York, PA 17401

seller

First Natl Bk Of Pa

(800) 555-5455

vital data

Sale Date:	12/20/2018	Sale Price:	$260,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	380 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000056775
Density:	Commercial	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	None
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4639612	Zoning:	-...
		Submarket:	York County
		Map Page:	-
		Parcel No:	02-026-01-0001-A0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$659
		- Operating Expenses	
		Total Expenses	$659

	Gross	Net
Acres:	0.13 AC	-
Price/Acre:	$1,935,964.26	-
SF:	5,850 SF	-
Price/SF:	$44.44	-

financing

Listing Broker

Colliers International|Pittsburgh
525 William Penn Pl
Pittsburgh, PA 15219
(412) 321-4200
Gregory Broujos

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Abe Khan, Brad Rohrbaugh, Chad Stine

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2024 N George St

Between Route 83 and Route 30 - .64 Acres
York, PA 17404

Land of 0.64 AC is for sale at $729,000 ($1,139,062.50/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	741 days	Asking Price:	$729,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	36-000-07-0164-00-00000
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Office, Auto Dealership, Auto Repair, Car Wash, Fast Food, Health Care, Storefront

income expense data

	Gross	Net
Acres:	0.64 AC	-
Price/Acre:	-	-
SF:	27,878 SF	-
Price/SF:	-	-

Listing Broker

Country Home Real Estate Inc
1911 E Market St
York, PA 17402
(717) 755-1800
Mark Gibson

Buyer Broker

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2605 S George St

2605 S. George St. Land
York, PA 17403

Commercial Land of 1.17 AC Sold on 1/7/2021 for $420,000 - Public Record

buyer

seller

vital data

Sale Date:	1/7/2021	Sale Price:	$420,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	647 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	5344617	Zoning:	Commercial Shopping
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

	Gross	Net
Acres:	1.17 AC	-
Price/Acre:	$358,974.36	-
SF:	50,965 SF	-
Price/SF:	$8.24	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Robert Behler

Buyer Broker

financing

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581 Green Valley Rd

York, PA 17403

Commercial Land of 10.40 AC Sold on 9/5/2019 for $200,000 - Public Record

buyer

Blue Field Properties Llc
217 Farefield Ct
York, PA 17402

seller

6 Stars Lp

vital data

Sale Date:	9/5/2019	Sale Price:	$200,000
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000039003
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4888862	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-GJ-0180-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$3,902
		- Operating Expenses	
		Total Expenses	$3,902

	Gross	Net
Acres:	10.40 AC	-
Price/Acre:	$19,230.77	-
SF:	453,024 SF	-
Price/SF:	$0.44	-

financing

Listing Broker

Buyer Broker

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581 Green Valley Rd

York, PA 17403

Commercial Land of 10.40 AC Sold on 10/22/2019 - Public Record

buyer

Blue Field Properties Llc
217 Farefield Ct
York, PA 17402

seller

Blue Field Properties Llc

vital data

Sale Date:	10/22/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000047742
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4945079	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-GJ-0180-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses	- Taxes	$3,902
	- Operating Expenses	
	Total Expenses	$3,902

	Gross	Net
Acres:	10.40 AC	-
Price/Acre:	-	-
SF:	453,024 SF	-
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	9/5/2019 (000000039003)
Sale Price:	$200,000
CompID:	4888862

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560 Greenbriar Rd

York, PA 17404

Land of 2.71 AC is for sale at $249,000 ($91,881.92/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	969 days	Asking Price:	$249,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	350 feet on Greenbriar Rd (with ...	Topography:	Sloping
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Office

income expense data

	Gross	Net
Acres:	2.71 AC	-
Price/Acre:	-	-
SF:	118,048 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Robert Behler

Buyer Broker

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772 Greenbriar Rd

York, PA 17404

Land of 6.82 AC is for sale at $350,000 ($51,319.65/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	558 days	Asking Price:	$350,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	Residential Low Density
		Submarket:	York County
		Map Page:	-
		Parcel No:	36-000-KH-0072-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	6.82 AC	-
Price/Acre:	-	-
SF:	297,079 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

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130 N Hartley St

York, PA 17401

Industrial Land of 0.33 AC Sold on 6/7/2018 for $9,939 - Research Complete (Part of Multi-Property)

buyer

Precision Custom Components
500 Lincoln St
York, PA 17401
(717) 848-1126

seller

Yohn Property Management
96 S George St
York, PA 17401
(717) 843-7509

vital data

Sale Date:	6/7/2018	Sale Price:	$9,939
Escrow/Contract:	-	Status:	Allocated
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000024066
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4348884	Zoning:	ID
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$5,912
		- Operating Expenses	
		Total Expenses	

	Gross	Net
Acres:	0.33 AC	0.33 AC
Price/Acre:	$30,118.18	$30,118.18
SF:	14,375 SF	14,375 SF
Price/SF:	$0.69	$0.69

Listing Broker

No Listing Broker on Deal

Buyer Broker

No Buyer Broker on Deal

financing

prior sale

Date/Doc No:	3/6/2018 (000000009376)
Sale Price:	$1,150,000
CompID:	4189436

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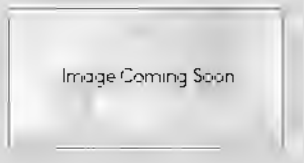
130 N Hartley St

York, PA 17401

Industrial Land of 0.33 AC Sold on 3/6/2018 - Research Complete (Part of Multi-Property)



buyer

Yohn Property Management
96 S George St
York, PA 17401
(717) 843-7509

seller

Robert C. Bohn
c/o YC Properties Llc
1560 Wyndham Dr
York, PA 17403
(717) 843-0580

vital data

Sale Date:	3/6/2018	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000009376
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4189436	Zoning:	ID
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$5,912
		- Operating Expenses	
		Total Expenses	

	Gross	Net
Acres:	0.33 AC	0.33 AC
Price/Acre:	-	-
SF:	14,375 SF	14,375 SF
Price/SF:	-	-

financing

Listing Broker

Buyer Broker

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222 N Hartley St

York, PA 17401

Industrial Land of 1.59 AC Sold on 6/7/2018 for $47,887 - Research Complete (Part of Multi-Property)

buyer

Precision Custom Components
500 Lincoln St
York, PA 17401
(717) 848-1126

seller

Yohn Property Management
96 S George St
York, PA 17401
(717) 843-7509

vital data

Sale Date:	6/7/2018	Sale Price:	$47,887
Escrow/Contract:	-	Status:	Allocated
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000024066
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4348884	Zoning:	ID
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$5,912
		- Operating Expenses	
		Total Expenses	

	Gross	Net
Acres:	1.59 AC	1.59 AC
Price/Acre:	$30,117.61	$30,117.61
SF:	69,260 SF	69,260 SF
Price/SF:	$0.69	$0.69

Listing Broker

No Listing Broker on Deal

Buyer Broker

No Buyer Broker on Deal

financing

prior sale

Date/Doc No:	3/6/2018 (000000009376)
Sale Price:	$1,150,000
CompID:	4189436

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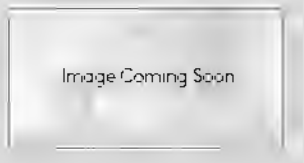
222 N Hartley St

York, PA 17401

Industrial Land of 1.59 AC Sold on 3/6/2018 - Research Complete (Part of Multi-Property)



buyer

Yohn Property Management
96 S George St
York, PA 17401
(717) 843-7509

seller

Robert C. Bohn
c/o YC Properties Llc
1560 Wyndham Dr
York, PA 17403
(717) 843-0580

vital data

Sale Date:	3/6/2018	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000009376
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4189436	Zoning:	ID
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$5,912
		- Operating Expenses	
		Total Expenses	

	Gross	Net
Acres:	1.59 AC	1.59 AC
Price/Acre:	-	-
SF:	69,260 SF	69,260 SF
Price/SF:	-	-

financing

Listing Broker

Buyer Broker

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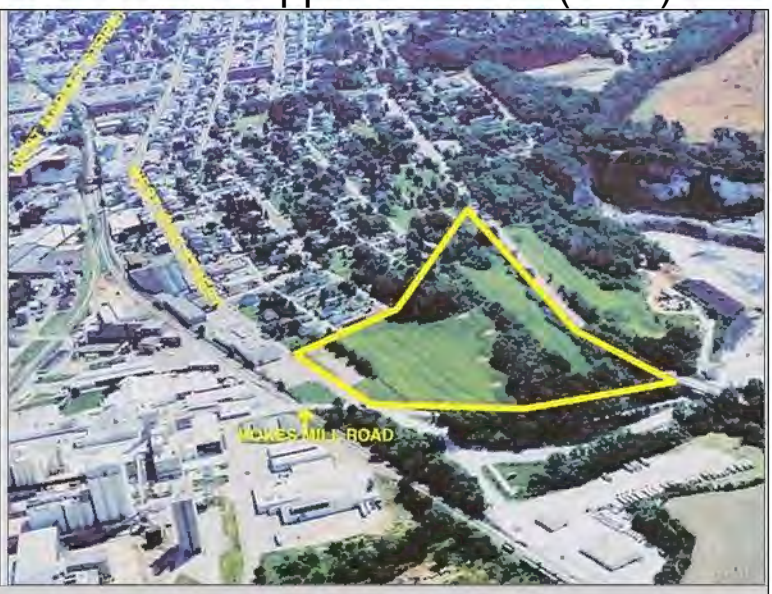
Hokes Mill Rd @ West King Street

West York Industrial Park
York, PA 17404

Land of 12 AC is for sale



buyer

For Sale

seller

-

vital data

Days on Market:	3,282 days	Asking Price:	-
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	31-000-ll-0070-s0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	12 AC	12 AC
Price/Acre:	-	-
SF:	522,720 SF	522,720 SF
Price/SF:	-	-

Listing Broker

Kinsley Properties
6259 Reynolds Mill Rd
Seven Valleys, PA 17360
(717) 741-8404
Daniel S. Hawks

Buyer Broker

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Indian Rock Dam Rd

Indian Rock Dam Rd
York, PA 17403

Land of 0.86 AC is for sale at $498,000 ($579,069.77/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	179 days	Asking Price:	$498,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Sloping
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Commercial Shopping
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-06-0019-A0-00000
		Property Type:	Land
		Proposed Use:	Retail, Office, Auto Dealership, Auto Repair

income expense data

	Gross	Net
Acres:	0.86 AC	-
Price/Acre:	-	-
SF:	37,462 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Robert Behler

Buyer Broker

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Industrial Hwy

York, PA 17402

Commercial Land of 14.09 AC Sold on 3/22/2019 for $3,300,000 - Research Complete

buyer

Site Design Concepts Inc
127 W Market St
York, PA 17401
(717) 757-9414

seller

David Cronheim Companies
205 Main St
Chatham, NJ 07928
(973) 635-2180

vital data

Sale Date:	3/22/2019	Sale Price:	$3,300,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	$0
Exchange:	No	Pct Down:	0.0%
Conditions:	-	Doc No:	000000029581
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4844450	Zoning:	F-D
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-JI-0004-00-00000
		Property Type:	Land
		Proposed Use:	Retail

income expense data

Expenses	- Taxes	$34,222
	- Operating Expenses	
	Total Expenses	$34,222

	Gross	Net
Acres:	14.09 AC	14.09 AC
Price/Acre:	$234,208.66	$234,208.66
SF:	613,760 SF	613,760 SF
Price/SF:	$5.38	$5.38

financing

Listing Broker

No Listing Broker on Deal

Buyer Broker

No Buyer Broker on Deal

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3000 Innovation Dr

York, PA 17402

Industrial Land of 15 AC Sold on 6/10/2020 for $958,214

buyer

KEIII Innovation Drive, LLC
6259 Reynolds Mill Rd
Seven Valleys, PA 17360

seller

Kinsley Equities Ii Lp
6259 Reynolds Mill Rd
Seven Valleys, PA 17360
(717) 741-3841

vital data

Sale Date:	6/10/2020	Sale Price:	$958,214
Escrow/Contract:	-	Status:	Full Value
Days on Market:	4,920 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4971705	Zoning:	Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	31-000-ll-0070-s0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$14,665
		- Operating Expenses	
		Total Expenses	$14,665
	Gross	Net	
Acres:	15 AC	-	
Price/Acre:	$63,880.93	-	
SF:	653,400 SF	-	
Price/SF:	$1.47	-	

financing

Listing Broker

Kinsley Properties
6259 Reynolds Mill Rd
Seven Valleys, PA 17360
(717) 741-8404
Daniel S. Hawks

Buyer Broker

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Kenneth Rd

LOT 1
York, PA 17404

Commercial Land of 0.75 AC Sold on 5/15/2017 - Public Record

buyer

1401 Kenneth Road York Llc
1801 SW 3rd Ave
Miami, FL 33129

seller

Ruby Tuesday
4170 Ashford Dunwoody Rd
Atlanta, GA 30319
(404) 865-3356

vital data

Sale Date:	5/15/2017	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000022686
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	3920076	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-30-0022-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$28,177
		- Operating Expenses	
		Total Expenses	$28,177

	Gross	Net
Acres:	0.75 AC	-
Price/Acre:	-	-
SF:	32,670 SF	-
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

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Lincoln Hwy

Large Corner Commercial Parcel
York, PA 17404

Land of 5.96 AC is for sale at $834,400 ($140,000/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	641 days	Asking Price:	$834,400
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	-
		Zoning:	HC
		Submarket:	York County
		Map Page:	-
		Parcel No:	67-51-000-HG-0004-G0-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	5.96 AC	-
Price/Acre:	-	-
SF:	259,618 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David L. Bode, CCIM, SIOR, Heather Kreiger

Buyer Broker

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4100 Lincoln Hwy

Sale or Build-To-Suit
York, PA 17406

Land of 10.02 AC is for sale at $790,000 ($78,842.32/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	775 days	Asking Price:	$790,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	462 feet on Lincoln Highway	Topography:	Sloping
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Commercial Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-14-0053-00-00000
		Property Type:	Land
		Proposed Use:	Warehouse

income expense data

	Gross	Net
Acres:	10.02 AC	-
Price/Acre:	-	-
SF:	436,471 SF	-
Price/SF:	-	-

Listing Broker

TRUE Commercial Real Estate, LLC
1018 N Christian St
Lancaster, PA 17602
(717) 850-8783
Gordon Kauffman

Buyer Broker

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Lincoln Hwy

York, PA 17406

Commercial Land of 4.67 AC Sold on 12/13/2018 for $934,132 - Research Complete (Part of Portfolio)

buyer

SK Realty Management
c/o Sam Kirschenbaum
254 W 31st St
New York, NY 10001
(212) 689-1233

seller

Lawrence Walter Edwards Sr
c/o William R Haas
324 Old Dr
Chesapeake, VA 23322
(757) 620-3986

vital data

Sale Date:	12/13/2018	Sale Price:	$934,132
Escrow/Contract:	-	Status:	Allocated
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	Bulk/Portfolio Sale, ...	Doc No:	000000002662
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4665484	Zoning:	M-1
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Office, Mixed Use, MultiFamily, Hospitality

income expense data

Expenses		- Taxes	$20,118
		- Operating Expenses	
		Total Expenses	$20,118

	Gross	Net
Acres:	4.67 AC	-
Price/Acre:	$200,028.27	-
SF:	203,425 SF	-
Price/SF:	$4.59	-

financing

Listing Broker

Buyer Broker

CBRE
5 Capital Dr
Harrisburg, PA 17110
(717) 540-2700
Patrick Lafferty

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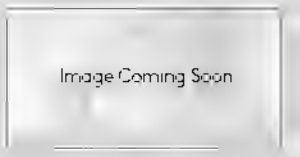
Lioners Creek Rd

Lioners Creek Rd
Dallastown, PA 17313

Land of 50.99 AC is for sale at $1,937,620 ($38,000/AC)



buyer

For Sale

seller

-

vital data

Days on Market:	171 days	Asking Price:	$1,937,620
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	RA
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-GJ-0157.00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	50.99 AC	-
Price/Acre:	-	-
SF:	2,221,124 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Abe Khan, Brad Rohrbaugh, Chad Stine

Buyer Broker

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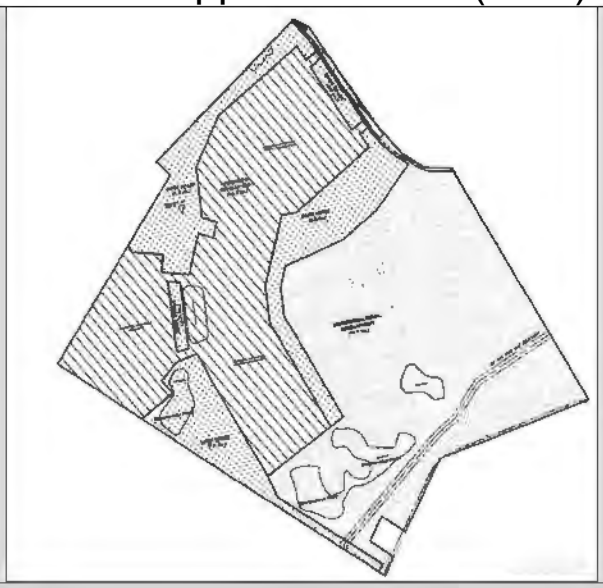
1605 Loucks Rd

Former Hawk Lake Golf Course - Memorial Hospital Site
York, PA 17408

Commercial Land of 128 AC Sold on 7/1/2017 for $5,362,139 - Research Complete



buyer

PinnacleHealth Memorial Hospital
c/o Paul Toburen
325 S Belmont St
York, PA 17315
(717) 843-8623

seller

Community Health Systems, Inc
368 NE Franklin St
Lake City, FL 32055
(615) 465-7000

vital data

Sale Date:	7/1/2017	Sale Price:	$5,362,139
Escrow/Contract:	-	Status:	Full Value
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000029958
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Rolling
Lot Dimensions:	Irregular	Improvements:	See notes
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	3983856	Zoning:	MU, CM
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-JH-0019-C0-00000
		Property Type:	Land
		Proposed Use:	Office, Health Care, Medical

income expense data

Expenses		- Taxes	$132,571
		- Operating Expenses	
		Total Expenses	$132,571

	Gross	Net
Acres:	128 AC	101.70 AC
Price/Acre:	$41,891.71	$52,725.06
SF:	5,575,680 SF	4,430,052 SF
Price/SF:	$0.96	$1.21

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	6/28/2017
Sale Price:	-
CompID:	3954319

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00 Loucks Mill

York, PA 17403

Land of 0.21 AC is for sale at $45,000 ($214,285.71/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	45 days	Asking Price:	$45,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	0.21 AC	-
Price/Acre:	-	-
SF:	9,148 SF	-
Price/SF:	-	-

Listing Broker

Berkshire Hathaway HomeSale Realty
215 S Centerville Rd
Lancaster, PA 17603
(717) 393-0100
Customer Service, Jon Bausman

Buyer Broker

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0 Loucks Mill

York, PA 17403

Land of 0.28 AC is for sale at $45,000 ($160,714.29/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	45 days	Asking Price:	$45,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	0.28 AC	-
Price/Acre:	-	-
SF:	12,197 SF	-
Price/SF:	-	-

Listing Broker

Berkshire Hathaway HomeSale Realty
215 S Centerville Rd
Lancaster, PA 17603
(717) 393-0100
Customer Service, Jon Bausman

Buyer Broker

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N Main St @ Robinhood Drive

York, PA 17408

Commercial Land of 1.48 AC Sold on 1/17/2020 for $220,000 - Public Record

buyer

JLM Real Estate Investments LLC
950 E Main St
Schuylkill Haven, PA 17972

seller

JAK Associates, LP

vital data

Sale Date:	1/17/2020	Sale Price:	$220,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	787 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	Mixed Use	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	201 feet on Route 616	Off-Site Improv:	-
Comp ID:	5020450	Zoning:	Mixed Use
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Retail, Office

income expense data

	Gross	Net
Acres:	1.48 AC	-
Price/Acre:	$148,648.65	-
SF:	64,469 SF	-
Price/SF:	$3.41	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Dennis Neiman, Karen Neiderer

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brad Rohrbaugh, Chad Stine, Adam Hagerman

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E Market St

Lots 12 and 13
York, PA 17315

Commercial Land of 1.05 AC Sold on 4/12/2018 for $1,000,000 - Research Complete

buyer

Beck Funeral Home Inc
315 E Main St
New Holland, PA 17557
(717) 354-2227

seller

Pasch Enterprises
2645 Carnegie Rd
York, PA 17402
(717) 757-4859

vital data

Sale Date:	4/12/2018	Sale Price:	$1,000,000
Escrow/Contract:	-	Status:	Full Value
Days on Market:	-	Down Pmnt:	$0
Exchange:	No	Pct Down:	0.0%
Conditions:	-	Doc No:	000000016303
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4259207	Zoning:	C-H
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-JJ-0058-P0-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$18,702
		- Operating Expenses	
		Total Expenses	$18,702

	Gross	Net
Acres:	1.05 AC	-
Price/Acre:	$952,380.95	-
SF:	45,738 SF	-
Price/SF:	$21.86	-

financing

Listing Broker

Buyer Broker

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417 E Market St

York, PA 17403

Commercial Land of 0.06 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)

buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	20 feet on E Market St	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.06 AC	-
Price/Acre:	-	-
SF:	2,614 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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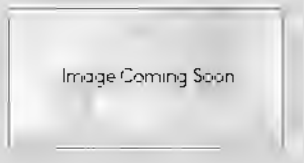
419 E Market St

York, PA 17403

Commercial Land of 0.07 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)



buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.07 AC	-
Price/Acre:	-	-
SF:	2,847 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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421 E Market St

York, PA 17403

Commercial Land of 0.06 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)

buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	17 feet on E Market St	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.06 AC	-
Price/Acre:	-	-
SF:	2,614 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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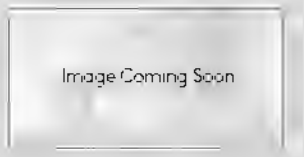
423 E Market St

York, PA 17403

Commercial Land of 0.06 AC Sold on 12/20/2019 for $410,000 - Public Record



buyer

New York Wire Works Llc
3502 SCOTTS Ln
PHILADELPHIA, PA 19129

seller

Iwm International Llc

vital data

Sale Date:	12/20/2019	Sale Price:	$410,000
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	17 feet on E Market St	Off-Site Improv:	-
Comp ID:	5005411	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	02-025-02-0007-00-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$740
		- Operating Expenses	
		Total Expenses	$740

	Gross	Net
Acres:	0.06 AC	-
Price/Acre:	$6,833,333.33	-
SF:	2,614 SF	-
Price/SF:	$156.85	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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423 E Market St

York, PA 17403

Commercial Land of 0.06 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)

buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	17 feet on E Market St	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.06 AC	-
Price/Acre:	-	-
SF:	2,614 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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425 E Market St

York, PA 17403

Commercial Land of 0.06 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)

buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	21 feet on E Market St	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.06 AC	-
Price/Acre:	-	-
SF:	2,614 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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427 E Market St

York, PA 17403

Commercial Land of 0.08 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)

buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	23 feet on E Market St	Off-Site Improv:	-
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.08 AC	-
Price/Acre:	-	-
SF:	3,485 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	8/31/2011
Sale Price:	$1,250,000
CompID:	2203807

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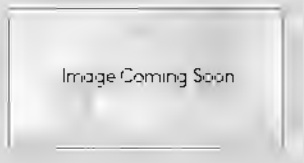
2401 E Market St

York, PA 17402

Commercial Land of 0.48 AC Sold on 3/22/2017 for $425,000 - Public Record



buyer

Blm Const & Remodeling Llc
5750 Old Carlisle Rd
Dover, PA 17315

seller

SPEEDWAY LLC
28 Liberty St
New York, NY 10005
(800) 643-1948

vital data

Sale Date:	3/22/2017	Sale Price:	$425,000
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000006136
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity, -...
Comp ID:	4146632	Zoning:	
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-02-0004-00-00000
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Mixed Use, Bank, Retail Warehouse, Storefront, Storefront Retail/Office

income expense data

Expenses	- Taxes	$14,793
	- Operating Expenses	
	Total Expenses	$14,793

	Gross	Net
Acres:	0.48 AC	0.48 AC
Price/Acre:	$881,559.84	$881,742.74
SF:	21,000 SF	21,000 SF
Price/SF:	$20.24	$20.24

financing

Listing Broker

Buyer Broker

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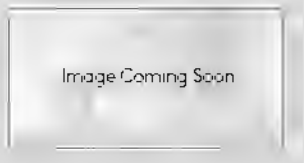
2401 E Market St

York, PA 17402

Commercial Land of 0.48 AC Sold on 3/22/2017 - Public Record (Part of Multi-Property)



buyer

Blm Construction Llc
5750 Old Carlisle Rd
Dover, PA 17315

seller

Speedway LLC
239 S Main St
Findlay, OH 45840

vital data

Sale Date:	3/22/2017	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000014448
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity, -...
Comp ID:	3880593	Zoning:	
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Mixed Use, Bank, Retail Warehouse, Storefront, Storefront Retail/Office

income expense data

Expenses	- Taxes	$14,793
	- Operating Expenses	
	Total Expenses	$14,793

	Gross	Net
Acres:	0.48 AC	0.48 AC
Price/Acre:	-	-
SF:	21,000 SF	21,000 SF
Price/SF:	-	-

financing

Listing Broker

Buyer Broker

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3603 E Market St

York, PA 17402

Commercial Land of 1.20 AC Sold on 10/23/2019 for $370,000 - Public Record

buyer

White Rose Cu
3498 Industrial Hwy
York, PA 17402

seller

Tufarolo James E & Jamie E

vital data

Sale Date:	10/23/2019	Sale Price:	$370,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	140 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000047354
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	140 feet on E. Market St	Off-Site Improv:	Cable, Electricity, Gas, Sewer, Water
Comp ID:	4924262	Zoning:	Commercial Highway
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-JJ-0040-D0-00000
		Property Type:	Land
		Proposed Use:	Retail, Office

income expense data

Expenses		- Taxes	$5,375
		- Operating Expenses	
		Total Expenses	$5,375

	Gross	Net
Acres:	1.20 AC	-
Price/Acre:	$308,333.33	-
SF:	52,272 SF	-
Price/SF:	$7.08	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Robert Behler

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brad Rohrbaugh, Chad Stine

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3630 E Market St

Lot 13 - Market Street Commons
York, PA 17402

Commercial Land of 1.05 AC Sold on 4/13/2018 for $500,000 - Research Complete

buyer

seller

vital data

Sale Date:	4/13/2018	Sale Price:	$500,000
Escrow/Contract:	-	Status:	-
Days on Market:	903 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4209202	Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

	Gross	Net
Acres:	1.05 AC	1.05 AC
Price/Acre:	$476,190.48	$476,190.48
SF:	45,738 SF	45,738 SF
Price/SF:	$10.93	$10.93

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

financing

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3630 E Market St

Lot 12 - Market Street Commons
York, PA 17402

Commercial Land of 1.05 AC Sold on 4/13/2018 for $500,000 - Research Complete

buyer

seller

vital data

Sale Date:	4/13/2018	Sale Price:	$500,000
Escrow/Contract:	-	Status:	-
Days on Market:	903 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4209203	Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

	Gross	Net
Acres:	1.05 AC	1.05 AC
Price/Acre:	$476,190.48	$476,190.48
SF:	45,738 SF	45,738 SF
Price/SF:	$10.93	$10.93

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

financing

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3883 E Market St

York, PA 17402

Land of 7.29 AC is for sale at $1,500,000 ($205,761.32/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,285 days	Asking Price:	$1,500,000
Conditions:	Build to Suit	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	1,100 feet on E Market ST 150 ...	Topography:	Level
		Improvements	n/a
		Off-Site Improv:	n/a
		Zoning:	F-D
		Submarket:	York County
		Map Page:	-
		Parcel No:	46-000-13-0098-00-00000
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	7.29 AC	7.10 AC
Price/Acre:	-	-
SF:	317,552 SF	309,276 SF
Price/SF:	-	-

Listing Broker

Marcus & Millichap Inc
2005 Market St
Philadelphia, PA 19103
(215) 531-7000
Craig Dunkle, Mher Vartanian

Buyer Broker

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1001 W Market St

1001 West Market Street, York, PA 17404
York, PA 17404

Land of 2.21 AC is for sale at $2,750,000 ($1,244,343.89/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,083 days	Asking Price:	$2,750,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	380 feet on West Market Street ...	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	67-11-305-04-0001-00-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	Convenience Store, Drug Store, Fast Food, Health Care

income expense data

	Gross	Net
Acres:	2.21 AC	-
Price/Acre:	-	-
SF:	96,268 SF	-
Price/SF:	-	-

Listing Broker

TRUE Commercial Real Estate, LLC
1018 N Christian St
Lancaster, PA 17602
(717) 850-8783
Benjamin M. Chiaro, CCIM

Buyer Broker

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1320 W Market St

York, PA 17404

Land of 0.62 AC is for sale at $300,000 ($483,870.97/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,714 days	Asking Price:	$300,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	88-000-09-0001-00-00000
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Office, Mixed Use

income expense data

	Gross	Net
Acres:	0.62 AC	0.62 AC
Price/Acre:	-	-
SF:	27,007 SF	27,007 SF
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Abe Khan, Brad Rohrbaugh, Chad Stine

Buyer Broker

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4155 W Market St

York, PA 17408

Commercial Land of 1.95 AC Sold on 5/8/2017 - Public Record

buyer

seller

Econopouly Sotirios & Georgia
1 Sierks Ln
Roslyn, NY 11576
(516) 484-5127

vital data

Sale Date:	5/8/2017	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	26 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	Vacant Land
Frontage	330 feet on Lincoln Highway	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	3898619	Zoning:	CM
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

Expenses	- Taxes	$8,402
	- Operating Expenses	
	Total Expenses	$8,402

	Gross	Net
Acres:	1.95 AC	1.95 AC
Price/Acre:	-	-
SF:	84,942 SF	84,942 SF
Price/SF:	-	-

financing

Listing Broker

Sigma Commercial Realty, Inc
2550 Kingston Rd
York, PA 17402
(717) 848-8888
Louis Skeparnias

Buyer Broker

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220 E Mason Ave

Parking Lot for 232 E Market St
York, PA 17403

Commercial Land of 0.38 AC Sold on 8/26/2020 - Research Complete (Part of Multi-Property)

buyer

Sharpline Equity
480 N Bayview Rd
Southold, NY 11971
(631) 629-5557

seller

Joshua Juffe
2534 N 3rd St
Harrisburg, PA 17110
(717) 232-8090

vital data

Sale Date:	8/26/2020	Sale Price:	$0
Escrow/Contract:	90 days	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000044806
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	parking lot
Frontage	-	Off-Site Improv:	-
Comp ID:	5248383	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Parking Lot

income expense data

Expenses	- Taxes	$149,502
	- Operating Expenses	
	Total Expenses	$149,502
Net Income	Net Operating Income	$402,966
	- Debt Service	
	- Capital Expenditure	
	Cash Flow	

	Gross	Net
Acres:	0.38 AC	0.38 AC
Price/Acre:	-	-

financing

Listing Broker

Scope Commercial Real Estate Services, LLC
1635 Market St
Philadelphia, PA 19103
(215) 302-4400
Zeke Rotter, Jonathan Massaro

Buyer Broker

No Buyer Broker on Deal

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1 Masonic Dr

York, PA 17406

Commercial Land of 3.33 AC Sold on 12/1/2020 - Research Complete

buyer

seller

vital data

Sale Date:	12/1/2020	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	246 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Sloping
Lot Dimensions:	-	Improvements:	-
Frontage	468 feet on Skyview Drive	Off-Site Improv:	-
Comp ID:	5373045	Zoning:	C
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	3.33 AC	3.33 AC
Price/Acre:	-	-
SF:	145,055 SF	145,055 SF
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Naomi Brown

Buyer Broker

financing

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1620 Memory Ln

MIXED-USE DEVELOPMENT LAND
York, PA 17406

Land of 6.80 AC is for sale at $2,400,000 ($352,941.18/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	3,391 days	Asking Price:	$2,400,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	1,000 feet on Memory Lane	Topography:	Sloping
		Improvements	-
		Off-Site Improv:	
		Zoning:	Mixed Use
		Submarket:	York County
		Map Page:	-
		Parcel No:	46000KI00760000000
		Property Type:	Land
		Proposed Use:	Retail, Office, Mixed Use, MultiFamily, Day Care Center, Hotel, Restaurant

income expense data

	Gross	Net
Acres:	6.80 AC	6.80 AC
Price/Acre:	-	-
SF:	296,208 SF	296,208 SF
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

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1643 Mount Rose Ave

Sale - 1.72+/- Acres
York, PA 17403

Land of 1.72 AC is for sale at $375,000 ($218,023.26/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,209 days	Asking Price:	$375,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Industrial Park
		Submarket:	York County
		Map Page:	-
		Parcel No:	67-48-000-14-0112-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	1.72 AC	-
Price/Acre:	-	-
SF:	74,923 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David L. Bode, CCIM, SIOR, Ben Bode, CCIM

Buyer Broker

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1788 Mt Rose Ave

SWC of I-83 & Mt. Rose Avenue
York, PA 17403

Land of 48.50 AC is for sale

buyer

For Sale

seller

-

vital data

Days on Market:	1,237 days	Asking Price:	-
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	48-000-15-0038-B0-00000
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	48.50 AC	-
Price/Acre:	-	-
SF:	2,112,660 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Adam Hagerman, Brad Rohrbaugh, Chad Stine

Buyer Broker

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130-145 Mundis Race Rd

INDUSTRIAL DEVELOPMENT LAND
York, PA 17406

Industrial Land of 202.61 AC Sold on 2/21/2020 for $6,500,000 - Research Complete

buyer

Core5 Industrial Partners
c/o Core5 Industrial Partners
1230 Peachtree St NE
Atlanta, GA 30309
(404) 262-5405

seller

Standard Concrete Products Co
700 N Sherman St
York, PA 17402
(717) 843-8074

vital data

Sale Date:	2/21/2020	Sale Price:	$6,500,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	1,192 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Electricity, Gas, Telephone, Water
Comp ID:	5065689	Zoning:	I
		Submarket:	York County
		Map Page:	-
		Parcel No:	36-000-LI-0059-00-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	Commercial, Industrial

income expense data

Expenses		- Taxes	$22,568
		- Operating Expenses	
		Total Expenses	$22,568

	Gross	Net
Acres:	202.61 AC	-
Price/Acre:	$32,081.34	-
SF:	8,825,692 SF	-
Price/SF:	$0.74	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh, Dennis Neiman

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh, Dennis Neiman

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Pauline Dr

Commercial Zoned Land
York, PA 17403

Land of 1.89 AC is for sale at $1,000,000 ($529,100.53/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	513 days	Asking Price:	$1,000,000
Conditions:	Build to Suit, Ground Lease ...	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	217 feet on Pauline Drive	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	C-S
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Retail, Office

income expense data

	Gross	Net
Acres:	1.89 AC	1.89 AC
Price/Acre:	-	-
SF:	82,328 SF	82,328 SF
Price/SF:	-	-

Listing Broker

TRUE Commercial Real Estate, LLC
1018 N Christian St
Lancaster, PA 17602
(717) 850-8783
Benjamin M. Chiaro, CCIM, Gordon Kauffman

Buyer Broker

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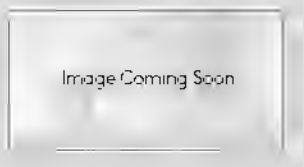
Philadelphia Rd

York, PA 17403

Commercial Land of 0.20 AC Sold on 12/20/2019 - Research Complete (Part of Multi-Property)



buyer

New York Wire Works, LLC

seller

IWM International
550 E Middle St
Hanover, PA 17331
(800) 323-5585

vital data

Sale Date:	12/20/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	123 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	2019057521
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	105 feet on Philadelphia Rd 90 ...	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	5068304	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses		- Taxes	$1,516
		- Operating Expenses	
		Total Expenses	$1,516

	Gross	Net
Acres:	0.20 AC	-
Price/Acre:	-	-
SF:	8,712 SF	-
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Jason Turnbull, CCIM, SIOR, Damian Reed, Ted Turnbull, CCIM

financing

prior sale

Date/Doc No:	12/18/2015
Sale Price:	$850,000
CompID:	3484646

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1751 W Poplar Ter

York, PA 17404

Industrial Land of 0.21 AC Sold on 5/8/2019 - Public Record
(Part of Multi-Property)

buyer

Kimmy S Cole
70 Finch Dr
York, PA 17404

seller

Hamberger Keith S & Rebecca M

vital data

Sale Date:	5/8/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000019384
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4772723	Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$1,771
		- Operating Expenses	
		Total Expenses	$1,771

	Gross	Net
Acres:	0.21 AC	-
Price/Acre:	-	-
SF:	9,148 SF	-
Price/SF:	-	-

financing

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David Bode, CCIM, SIOR

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

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2841 E Prospect Rd

2841 East Prospect Rd
York, PA 17402

Commercial Land of 6 AC Sold on 7/6/2018 - Research Complete (Part of Multi-Property)

buyer

334 Hospitality Group
905 Heritage Hills Dr
York, PA 17402
(717) 751-2730

seller

Internal Medicine Associates Llc
3001 Garrett Rd
Drexel Hill, PA 19026
(610) 626-0111

vital data

Sale Date:	7/6/2018	Sale Price:	-
Escrow/Contract:	730 days	Status:	-
Days on Market:	1,166 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000029232
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	343 feet on Route 24 418 feet on ...	Off-Site Improv:	Electricity, Gas, Water
Comp ID:	4395528	Zoning:	CS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

Expenses		- Taxes	$11,317
		- Operating Expenses	
		Total Expenses	$11,317

	Gross	Net
Acres:	6 AC	6 AC
Price/Acre:	-	-
SF:	261,360 SF	261,360 SF
Price/SF:	-	-

financing

Listing Broker

Rhino Realty Group Inc.
2645 Carnegie Rd
York, PA 17402
(717) 650-6729
Kevin Potter

Buyer Broker

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1701-1719 S Queen St

York, PA 17403

Commercial Land of 6.50 AC Sold on 3/19/2020 for $1,142,000 - Research Complete

buyer

WellSpan Health
45 Monument Rd
York, PA 17403
(717) 851-7070

seller

Edward S Kaltreider
1719 S Queen St
York, PA 17403
(717) 848-2000

vital data

Sale Date:	3/19/2020	Sale Price:	$1,142,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000013977
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Sloping
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	5215621	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	48-000-21-0200-00-00000
		Property Type:	Land
		Proposed Use:	Medical

income expense data

Expenses		- Taxes	$17,356
		- Operating Expenses	
		Total Expenses	$17,356

	Gross	Net
Acres:	6.50 AC	6.50 AC
Price/Acre:	$175,692.31	$175,692.31
SF:	283,140 SF	283,140 SF
Price/SF:	$4.03	$4.03

financing

Listing Broker

Re/Max Patriots
1770 E Market St
York, PA 17402
(717) 840-4848
Adam Flinchbaugh

Buyer Broker

AXL REALTY
33 N 2nd St
Harrisburg, PA 17101
(717) 370-7008
Demetri Koutsokostas

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2149 S Queen St

York, PA 17403

Commercial Land of 0.54 AC Sold on 11/13/2018 for $188,204 - Research Complete (Part of Multi-Property)

buyer

Queen Street Messina LLC
26205 Queen St
York, PA 17402
(717) 542-2428

seller

Round The Clock Diner
1020 Dillerville Rd
Lancaster, PA 17603
(717) 751-2730

vital data

Sale Date:	11/13/2018	Sale Price:	$188,204
Escrow/Contract:	120 days	Status:	Allocated
Days on Market:	532 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000050136
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4578553	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

Expenses		- Taxes	$16,957
		- Operating Expenses	
		Total Expenses	$16,957

	Gross	Net
Acres:	0.54 AC	-
Price/Acre:	$348,525.93	-
SF:	23,522 SF	-
Price/SF:	$8.00	-

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
David Nicholson, Blake Gross

Buyer Broker

No Buyer Broker on Deal

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2181 S Queen St

2181-2185 S Queen St
York, PA 17402

Land of 0.92 AC is for sale at $1,100,000 ($1,195,652.17/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	523 days	Asking Price:	$1,100,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	0.92 AC	-
Price/Acre:	-	-
SF:	40,075 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brad Rohrbaugh, Chad Stine

Buyer Broker

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2199 S Queen St

Parcel A
York, PA 17402

Commercial Land of 28 AC Sold on 9/19/2019 - Public Record

buyer

York Cnty Sch Of Technology Autho
2179 S Queen St
York, PA 17402

seller

York Cnty Sch Of Technology Autho

vital data

Sale Date:	9/19/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000046366
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4931509	Zoning:	RL3
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-HI-0009-R0-00000
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	28 AC	28 AC
Price/Acre:	-	-
SF:	1,219,680 SF	1,219,680 SF
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	7/23/2013
Sale Price:	-
CompID:	2886755

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Roosevelt Ave

York, PA 17404

Land of 47.12 AC is for sale at $1,790,000 ($37,988.12/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	447 days	Asking Price:	$1,790,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	36-000-KG-0031-Q0-00000
		Property Type:	Land
		Proposed Use:	Hold for Development

income expense data

	Gross	Net
Acres:	47.12 AC	47.12 AC
Price/Acre:	-	-
SF:	2,052,547 SF	2,052,547 SF
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David L. Bode, CCIM, SIOR

Buyer Broker

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1675 Roosevelt Ave

York, PA 17408

Commercial Land of 3 AC Sold on 2/13/2019 - Research Complete (Part of Multi-Property)

buyer

seller

vital data

Sale Date:	2/13/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	400 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	office	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	200 feet on Roosevelt Ave	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4674652	Zoning:	office
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Office, Medical

income expense data

	Gross	Net
Acres:	3 AC	3 AC
Price/Acre:	-	-
SF:	130,680 SF	130,680 SF
Price/SF:	-	-

Listing Broker

Laughner Patel Developers
4045 Thicket Ln
Harrisburg, PA 17110
(717) 712-7392
Robert Laughner

Buyer Broker

financing

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1685 Roosevelt Ave

York, PA 17408

Commercial Land of 3 AC Sold on 2/13/2019 - Research Complete (Part of Multi-Property)

buyer

seller

vital data

Sale Date:	2/13/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	400 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	office	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	200 feet on Roosevelt Ave	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4674652	Zoning:	office
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	Office, Medical

income expense data

	Gross	Net
Acres:	3 AC	3 AC
Price/Acre:	-	-
SF:	130,680 SF	130,680 SF
Price/SF:	-	-

Listing Broker

Laughner Patel Developers
4045 Thicket Ln
Harrisburg, PA 17110
(717) 712-7392
Robert Laughner

Buyer Broker

financing

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2217 Roosevelt Ave

Office Development Land
York, PA 17408

Land of 2.66 AC is for sale at $347,000 ($130,451.13/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	3,138 days	Asking Price:	$347,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	500 feet on Roosevelt Avenue & ...	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Office District
		Submarket:	York County
		Map Page:	-
		Parcel No:	36-000-JH-0001-D0-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	Commercial, Retail, Office, Health Care, Medical

income expense data

	Gross	Net
Acres:	2.66 AC	-
Price/Acre:	-	-
SF:	115,870 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Keith Kahlbaugh

Buyer Broker

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1677 Route 116

1677 Route 116
Spring Grove, PA 17362

Commercial Land of 2.09 AC Sold on 8/15/2019 for $325,000 - Public Record

buyer

Jackson Township
439 Roth Church Rd
Spring Grove, PA 17362

seller

H & H General Excavating Co

vital data

Sale Date:	8/15/2019	Sale Price:	$325,000
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000035686
Density:	Commercial	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Level
Lot Dimensions:	-	Improvements:	-
Frontage	250 feet on Rt 116	Off-Site Improv:	-
Comp ID:	4872437	Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	33-000-GF-0025-B0-00000
		Property Type:	Land
		Proposed Use:	Office, Bank, Day Care Center, Religious Facility

income expense data

Expenses	- Taxes	$2,977
	- Operating Expenses	
	Total Expenses	$2,977

	Gross	Net
Acres:	2.09 AC	2.09 AC
Price/Acre:	$155,502.39	$155,502.39
SF:	91,040 SF	91,040 SF
Price/SF:	$3.57	$3.57

financing

Listing Broker

Buyer Broker

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350 N Sherman St

York, PA 17403

Commercial Land of 5.71 AC Sold on 11/12/2020 for $560,000 - Public Record

buyer

Inchs Properties LLC
2950 Lewisberry Rd
York, PA 17404
(717) 309-0432

seller

Chevron Mining Inc

vital data

Sale Date:	11/12/2020	Sale Price:	$560,000
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000058443
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	5302380	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	48-000-03-0146-00-00000
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses		- Taxes	$50
		- Operating Expenses	
		Total Expenses	$50

	Gross	Net
Acres:	5.71 AC	-
Price/Acre:	$98,073.56	-
SF:	248,728 SF	-
Price/SF:	$2.25	-

financing

Listing Broker

Buyer Broker

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350 N Sherman St

York, PA 17403

Commercial Land of 5.71 AC Sold on 12/7/2020

buyer

seller

Inchs Properties LLC
2950 Lewisberry Rd
York, PA 17404
(717) 309-0432

vital data

Sale Date:	12/7/2020	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	82 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	5311485	Zoning:	RS
		Submarket:	York County
		Map Page:	-
		Parcel No:	48-000-03-0146-00-00000
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses		- Taxes	$50
		- Operating Expenses	
		Total Expenses	$50

	Gross	Net
Acres:	5.71 AC	-
Price/Acre:	-	-
SF:	248,728 SF	-
Price/SF:	-	-

Listing Broker

Williams & Williams
7140 S Lewis Ave
Tulsa, OK 74136
(800) 801-8003
Cindy Dees

Buyer Broker

financing

prior sale

Date/Doc No:	11/12/2020 (000000058443)
Sale Price:	$560,000
CompID:	5302380

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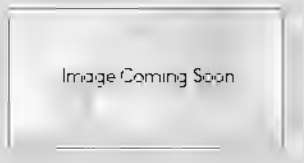
2650 Southfield Dr

York, PA 17403

Commercial Land of 1.44 AC Sold on 4/25/2019 - Research Complete (Part of Multi-Property)



buyer

UPMC Pinnacle Health System
409 S 2nd St
Harrisburg, PA 17105
(717) 231-8900

seller

Gastroenterology Associates
2690 Southfield Dr
York, PA 17403
(717) 741-1414

vital data

Sale Date:	4/25/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	Build to Suit	Doc No:	000000018011
Density:	OP	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	4767014	Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses	- Taxes	$2,783
	- Operating Expenses	
	Total Expenses	$2,783

	Gross	Net
Acres:	1.44 AC	1.44 AC
Price/Acre:	-	-
SF:	62,726 SF	62,726 SF
Price/SF:	-	-

financing

Listing Broker

Buyer Broker

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1036 Sprenkle Rd

Spring Grove, PA 17362

Land of 10.73 AC is for sale at $1,150,000 ($107,176.14/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,699 days	Asking Price:	$1,150,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial
		Submarket:	York County
		Map Page:	-
		Parcel No:	33-000-GF-0062-C0-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	10.73 AC	-
Price/Acre:	-	-
SF:	467,399 SF	-
Price/SF:	-	-

Listing Broker

Landmark Commercial Realty
425 N 21st St
Camp Hill, PA 17011
(717) 731-1990
Thomas T. Posavec, Roy H. Brenner

Buyer Broker

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Springwood Rd @ Pauline Dr

Beckett Woods
York, PA 17402

Land of 114 AC is for sale at $5,000,000 ($43,859.65/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	523 days	Asking Price:	$5,000,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	-
		Zoning:	C
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	114 AC	-
Price/Acre:	-	-
SF:	4,965,840 SF	-
Price/SF:	-	-

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Ryan A. Myers

Buyer Broker

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Springwood Rd @ Interstate 83

Beckett Woods
York, PA 17402

Land of 116.87 AC is for sale at $5,000,000 ($42,782.58/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	517 days	Asking Price:	$5,000,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	6,146 feet on Interstate 83	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	C1
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-II-0026-00-00000 [Partial List]
		Property Type:	Land
		Proposed Use:	Commercial

income expense data

	Gross	Net
Acres:	116.87 AC	-
Price/Acre:	-	-
SF:	5,090,857 SF	-
Price/SF:	-	-

Listing Broker

LMS Commercial Real Estate
120 N Pointe Blvd
Lancaster, PA 17601
(717) 569-9373
Brian Finley

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Ryan A. Myers

Buyer Broker

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Springwood Rd

York, PA 17403

Land of 14 AC is for sale at $845,000 ($60,357.14/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,011 days	Asking Price:	$845,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	-
		Improvements	-
		Off-Site Improv:	
		Zoning:	Commercial Office
		Submarket:	York County
		Map Page:	-
		Parcel No:	54000II00250000000
		Property Type:	Land
		Proposed Use:	Commercial, Office, Planned Unit Development

income expense data

	Gross	Net
Acres:	14 AC	14 AC
Price/Acre:	-	-
SF:	609,840 SF	609,840 SF
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
Kevin Hodge

Buyer Broker

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2064 Springwood Rd

York, PA 17403

Commercial Land of 2.34 AC Sold on 2/26/2020 for $450,000 - Public Record

buyer

Ssn York Llc
5159 W Woodmill Dr
Wilmington, DE 19808

seller

Wellspan Properties Inc

(717) 851-3055

vital data

Sale Date:	2/26/2020	Sale Price:	$450,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000009525
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	40 feet on Springwood Road	Off-Site Improv:	Electricity, Gas, Sewer, Water
Comp ID:	5088401	Zoning:	CS
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-04-0012-00-00000
		Property Type:	Land
		Proposed Use:	Office, Auto Dealership, Auto Repair, Day Care Center, Health Care, Hotel, Medical, Restaurant, Schools, Veterinarian/Kennel

income expense data

Expenses	- Taxes	$6,176
	- Operating Expenses	
	Total Expenses	$6,176

	Gross	Net
Acres:	2.34 AC	2.34 AC
Price/Acre:	$192,307.69	$192,307.69
SF:	101,930 SF	101,930 SF
Price/SF:	$4.41	$4.41

financing

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David Bode, CCIM, SIOR

Buyer Broker

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2640 Springwood Rd

York, PA 17402

Commercial Land of 5.99 AC Sold on 8/30/2019 for $495,500 - Public Record

buyer

Engles Llc
234 Reynolds Mill Rd
York, PA 17403

seller

Chas A Schaefer Flower Shop In

vital data

Sale Date:	8/30/2019	Sale Price:	$495,500
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000039027
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	Sloping
Lot Dimensions:	-	Improvements:	-
Frontage	567 feet on Chestnut Hill 515 feet ...	Off-Site Improv:	Electricity, Gas, Water
Comp ID:	4888859	Zoning:	Commercial Shopping
		Submarket:	York County
		Map Page:	-
		Parcel No:	54-000-HJ-0188-A0-00000
		Property Type:	Land
		Proposed Use:	Commercial, Retail

income expense data

Expenses	- Taxes	$10,222
	- Operating Expenses	
	Total Expenses	$10,222

	Gross	Net
Acres:	5.99 AC	5.99 AC
Price/Acre:	$82,721.20	$82,721.20
SF:	260,924 SF	260,924 SF
Price/SF:	$1.90	$1.90

financing

Listing Broker

Buyer Broker

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2668 Springwood Rd

York, PA 17402

Commercial Land of 52.73 AC Sold on 4/15/2019 - Public Record

buyer

seller

vital data

Sale Date:	4/15/2019	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	116 days	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Sewer, Water
Comp ID:	4732569	Zoning:	Commercial/Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

Expenses		- Taxes	$9,512
		- Operating Expenses	
		Total Expenses	$9,512

	Gross	Net
Acres:	52.73 AC	-
Price/Acre:	-	-
SF:	2,296,919 SF	-
Price/SF:	-	-

financing

Listing Broker

Berkshire Hathaway HomeSale Realty
215 S Centerville Rd
Lancaster, PA 17603
(717) 393-0100
Customer Service

Buyer Broker

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3899 Sticks Rd

Glen Rock, PA 17327

Commercial Land of 1.98 AC Sold on 6/26/2019 for $34,000 - Public Record

buyer

The Glen Rock Church of Christ

seller

Phillips Development, LLC

vital data

Sale Date:	6/26/2019	Sale Price:	$34,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	-
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	-
Comp ID:	5055111	Zoning:	-
		Submarket:	York County
		Map Page:	-
		Parcel No:	-
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	1.98 AC	1.98 AC
Price/Acre:	$17,171.72	$17,171.72
SF:	86,249 SF	86,249 SF
Price/SF:	$0.39	$0.39

financing

Listing Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brian Parrish

Buyer Broker

Bennett Williams Commercial
3528 Concord Rd
York, PA 17402
(717) 843-5555
Brian Parrish

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Taxville Rd @ Baker Road

SW Corner of Taxville Road and Baker Road
York, PA 17408

Land of 29.88 AC is for sale at $695,000 ($23,259.71/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	578 days	Asking Price:	$695,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	1,275 feet on Taxville Road ...	Topography:	Level
		Improvements	-
		Off-Site Improv:	-
		Zoning:	Rural Residential
		Submarket:	York County
		Map Page:	-
		Parcel No:	51000IG0018D000000
		Property Type:	Land
		Proposed Use:	Single Family Development

income expense data

	Gross	Net
Acres:	29.88 AC	-
Price/Acre:	-	-
SF:	1,301,573 SF	-
Price/SF:	-	-

Listing Broker

RSR Realtors
3 Lemoyne Dr
Lemoyne, PA 17043
(717) 763-1212
Jim Koury, Jimmy Koury, Jeffery Koury

Buyer Broker

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2000 Whiteford Rd

York, PA 17402

Land of 1.90 AC is for sale at $550,000 ($289,473.68/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	1,104 days	Asking Price:	$550,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	-	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	C-H
		Submarket:	York County
		Map Page:	-
		Parcel No:	67-46-000-JI-0018-00-00000
		Property Type:	Land
		Proposed Use:	-

income expense data

	Gross	Net
Acres:	1.90 AC	1.90 AC
Price/Acre:	-	-
SF:	82,764 SF	82,764 SF
Price/SF:	-	-

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
John Birkeland, MMH, CCIM, Damian Reed

Buyer Broker

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501 Windsor St

York, PA 17403

Land of 1.02 AC is for sale at $100,000 ($98,039.22/AC)

buyer

For Sale

seller

-

vital data

Days on Market:	394 days	Asking Price:	$100,000
Conditions:	-	Status:	For Sale
Lot Dimensions:	-	Corner:	No
Frontage:	225 feet on Windsor St 198 feet ...	Topography:	Level
		Improvements	-
		Off-Site Improv:	
		Zoning:	ID
		Submarket:	York County
		Map Page:	-
		Parcel No:	48-000-02-0011-00-00000
		Property Type:	Land
		Proposed Use:	Commercial, Industrial, Retail, Office, Auto Dealership, Auto Repair, Car Wash, Community Center, Contractor Storage Yard, Distribution, General Freestanding, Industrial Park, Office Park, Parking Lot, Retail Warehouse, Self-Storage, Service Station, Storefront Retail/Office, Warehouse

income expense data

	Gross	Net
Acres:	1.02 AC	1.02 AC
Price/Acre:	-	-
SF:	44,431 SF	44,431 SF
Price/SF:	-	-

Listing Broker

Tigerpaw Equipment LLC
626 Hazel Ave
Marietta, PA 17547
(717) 666-5122
Kyle Burkett

Buyer Broker

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Zarfoss Dr

York, PA 17404

Industrial Land of 18.89 AC Sold on 11/13/2018 - Public Record

buyer

ROOSEVELT HOLDINGS, LP
1114 Roosevelt Ave
York, PA 17404

seller

Roosevelt Holding Lp

vital data

Sale Date:	11/13/2018	Sale Price:	-
Escrow/Contract:	-	Status:	-
Days on Market:	-	Down Pmnt:	-
Exchange:	No	Pct Down:	-
Conditions:	-	Doc No:	000000051892
Density:	-	Trans Tax:	-
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	646 feet on Zarfoss	Off-Site Improv:	-
Comp ID:	4610882	Zoning:	I-3
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-IG-0052-S0-00000
		Property Type:	Land
		Proposed Use:	Industrial

income expense data

Expenses	- Taxes	$4,505
	- Operating Expenses	
	Total Expenses	$4,505

	Gross	Net
Acres:	18.89 AC	18.89 AC
Price/Acre:	-	-
SF:	822,848 SF	822,848 SF
Price/SF:	-	-

Listing Broker

Buyer Broker

financing

prior sale

Date/Doc No:	6/21/2016
Sale Price:	$150,000
CompID:	3786291

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400 Zarfoss Dr

High Profile Industrial Development Site
York, PA 17404

Industrial Land of 13.29 AC Sold on 6/26/2019 for $930,000 - Research Complete

buyer

Penn Waste
c/o Scott Wagner
3625 Mia Brae Dr
Manchester, PA 17345
(717) 767-4456

seller

Clint Elwood Sheffer
c/o Clint Sheffer
554 Kbs Rd
York, PA 17408
(717) 741-9372

vital data

Sale Date:	6/26/2019	Sale Price:	$930,000
Escrow/Contract:	-	Status:	Confirmed
Days on Market:	-	Down Pmnt:	$0
Exchange:	No	Pct Down:	0.0%
Conditions:	-	Doc No:	000000027145
Density:	-	Trans Tax:	$9,300
Max No of Units:	-	Corner:	No
Price/Unit:	-	Topography:	-
Lot Dimensions:	-	Improvements:	-
Frontage	-	Off-Site Improv:	Cable, Curb/Gutter/Sidewalk, Electricity,
Comp ID:	4814491	Zoning:	General Industrial
		Submarket:	York County
		Map Page:	-
		Parcel No:	51-000-IG-0058-B0-00000
		Property Type:	Land
		Proposed Use:	Industrial, Warehouse

income expense data

	Gross	Net
Acres:	13.29 AC	-
Price/Acre:	$69,977.43	-
SF:	578,912 SF	-
Price/SF:	$1.61	-

financing

1st M&T Bank
Bal/Pmt: $930,000

Listing Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David Bode, CCIM, SIOR

Buyer Broker

Rock Commercial Real Estate, LLC
221 W Philadelphia St
York, PA 17401
(717) 854-5357
David Bode, CCIM, SIOR

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S:\water industry\PA American - City of York\Report and Testimony\York Wastewater System Valuation as of 4-6-2021

	Engineer	Legal	Fees	
Determine the facilities for which a Easment is need	1	0	0	
Locate the Land owner for the property needing a easement	1	1	0	
Develop a diagram o the Property, the facilities, and the easement	2	0	0	
Develop the easement document	1	1	0	
Visit the property owner to obtain permission for the easement and sign the easment documentation	4	0	0	
Register the easement with the Municipal Clerk	0	1	250	
Total	9	3	250	
Labor Costs per Hour	54	100		
Total Cost	486	300	250	1036