



January 2, 2024

VIA E-FILING

Rosemary Chiavetta, Secretary
Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Docket No. M-2018-2645983
Pa. P.U.C. v. North Heidelberg Sewer Company

Docket No. I-2018-3001161
Section 529 Investigation – North Heidelberg Sewer Company

Dear Secretary Chiavetta:

Pursuant to the Commission's Statement Policy relating to water and wastewater system acquisitions at 52 Pa. Code § 69.721(f) enclosed is a copy of the original plant-in-service valuation of the wastewater system assets acquired from the North Heidelberg Sewer Company on March 31, 2023. Aqua Pennsylvania Wastewater, Inc. is also serving these documents to the Bureau of Technical Utility Services.

Should you have any questions regarding this filing, please contact me at (610) 520-6359.

Sincerely,

A handwritten signature in blue ink that reads "Erin Feeney".

Erin M. Feeney
Manager of Rates
Aqua Pennsylvania, Inc.

Enclosures
cc: Certificate of Service

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pa. P.U.C. v. North Heidelberg Sewer Company	:	Docket No. M-2018-2645983
	:	
	:	
Section 529 Investigation – North Heidelberg Sewer Company	:	Docket No. I-2018-3001161
	:	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the following document, the original cost plant-in-service valuation, in accordance with the requirements of 52 Pa. Code § 1.54 upon the person(s) and in the manner indicated below:

VIA EMAIL

Christine Hoover, Esq.
Office of Consumer Advocate
email to: choover@paoca.org

NazAarah Sabree
Office of Small Business Advocate
email to: nsabree@pa.gov

Richard Kanaskie, Director
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
email to: rkanaskie@pa.gov

Paul Diskin, Director
Bureau of Technical Utility Services
Pennsylvania Public Utility Commission
email to: pdiskin@pa.gov

Lori Burger
Bureau of Audits
Pennsylvania Public Utility Commission
email to: lburger@pa.gov

Dated: January 2, 2024



Erin M. Feeney
Manager of Rates
Aqua Pennsylvania, Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA 19010
610-520-6359
EFDomzalski@aquaamerica.com

AQUA PENNSYLVANIA, INC.
BRYN MAWR, PENNSYLVANIA

ORIGINAL COST AND
RELATED ACCRUED DEPRECIATION OF
NORTH HEIDELBERG
WASTEWATER SYSTEM
AS OF DECEMBER 31, 2022

Prepared by:



GANNETT FLEMING

Excellence Delivered As Promised

AQUA PENNSYLVANIA, INC.
BRYN MAWR, PENNSYLVANIA

ORIGINAL COST AND
RELATED ACCRUED DEPRECIATION OF
NORTH HEIDELBERG
WASTEWATER SYSTEM
AS OF DECEMBER 31, 2022

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Camp Hill, Pennsylvania



Gannett Fleming
Valuation and Rate Consultants, LLC

Corporate Headquarters
207 Senate Avenue
Camp Hill, PA 17011
P 717.763.7211 | F 717.763.8150

gannettfleming.com

June 26, 2023

Aqua Pennsylvania, Inc.
762 Lancaster Avenue
Bryn Mawr, PA 19010

Attention William C. Packer
Vice President, Regulatory Accounting & Regional Controller

Gentlemen:

Pursuant to your request, we have determined the original cost and related accrued depreciation as of December 31, 2022, of the wastewater assets of the North Heidelberg Wastewater System.

The attached report includes a brief description of the system, a description of the methods used in the determination of original cost and accrued depreciation, the itemized original cost of wastewater system facilities by account and installation year, and the detailed calculations of accrued depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS/mle

074923.000

CONTENTS

PART I. INTRODUCTION

Plan of Report	I-2
Description of System	I-2
Determination of Original Cost	I-3
Calculation of Accrued Depreciation	I-3
Results of Study	I-3
Table 1. Summary of Original Cost and Accrued Depreciation of Wastewater System as of December 31, 2022.....	I-4

PART II. ORIGINAL COST

Table 2. Summary of Analysis of Original Cost of Wastewater System as of December 31, 2022	II-2
Detailed Original Cost as of December 31, 2022	II-3

PART III. CALCULATION OF ACCRUED DEPRECIATION

Table 3. Summary of Survivor Curves, Original Cost and Calculated Accrued Depreciation of Wastewater System as of December 31, 2022	III-2
Detailed Depreciation Calculations	III-3

PART I. INTRODUCTION

AQUA PENNSYLVANIA, INC.

ORIGINAL COST AND RELATED ACCRUED DEPRECIATION OF
NORTH HEIDELBERG WASTEWATER SYSTEM
AS OF DECEMBER 31, 2022

PART I. INTRODUCTION

PLAN OF REPORT

The purpose of the study was to determine the original cost and related accrued depreciation as of December 31, 2022, of the wastewater assets for the North Heidelberg wastewater system.

The study is presented in three parts. Part I, Introduction, contains statements with respect to the plan of the report, the system facilities, the procedures employed, and a summary of the results of the study. Part II, Original Cost, presents the detailed analysis of the original cost by account and vintage year. Part III, Calculation of Accrued Depreciation, develops the accrued depreciation related to the original cost as of December 31, 2022.

DESCRIPTION OF SYSTEM

The North Heidelberg Wastewater System provides service to approximately 273 wastewater customers in Berks County, PA. The wastewater system assets include land and land rights, a wastewater treatment facility, PVC, cast iron and vitrified clay mains of varying sizes, services, manholes and four pump stations. The system originally began to provide service in 1971.

DETERMINATION OF ORIGINAL COST

The cost of system facilities was determined from the North Heidelberg records and unit costs typical of other wastewater utilities in the region. The unit costs were developed from typical unit costs experienced by other wastewater companies within the same region or published unit costs.

CALCULATION OF ACCRUED DEPRECIATION

The accrued depreciation calculation in Part III of the report was based on recognized methods using estimated survivor characteristics and the straight line depreciation method. The estimated survivor curves are similar to those used by other Pennsylvania wastewater companies. The average service life procedure was used to apply the methods of depreciation to group properties for which a survivor curve was used to recognize the existence of life dispersion.

A summary table of accrued depreciation applicable to original cost is set forth in Part III of the report. The detailed calculations by account and vintage follow the summary table.

RESULTS OF STUDY

The table on page II-2 summarizes the original cost and related accrued depreciation by account for the North Heidelberg wastewater system as of December 31, 2022. The original cost was brought forward from Part II of the report and the accrued depreciation from Part III of the report.

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

**TABLE 1. SUMMARY OF ORIGINAL COST AND ACCRUED DEPRECIATION OF
WASTEWATER SYSTEM AS OF DECEMBER 31, 2022**

ACCOUNT (1)	DESCRIPTION (2)	ORIGINAL COST (3)	ACCRUED DEPRECIATION (4)
353.40	LAND AND LAND RIGHTS - TREATMENT AND DISPOSAL	20,000.00	-
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	7,531.56	5,221
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL	29,081.02	16,435
355.00	POWER GENERATING EQUIPMENT	10,454.90	7,130
360.00	COLLECTION MAINS - FORCE	110,884.61	60,850
361.00	COLLECTION MAINS - GRAVITY	679,746.75	349,793
361.21	COLLECTION SEWERS - MANHOLES	65,894.22	45,795
363.00	CUSTOMER SERVICE LINES	68,275.48	44,328
370.30	RECEIVING WELLS	4,091.47	3,332
371.00	PUMPING EQUIPMENT	3,866.44	3,000
380.00	TREATMENT AND DISPOSAL EQUIPMENT	201,394.71	65,299
396.00	COMMUNICATION EQUIPMENT	7,666.67	7,667
TOTAL WASTEWATER PLANT		1,208,887.83	608,850

PART II. ORIGINAL COST

**AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER**

**TABLE 2. SUMMARY OF ANALYSIS OF ORIGINAL COST OF
WASTEWATER SYSTEM AS OF DECEMBER 31, 2022**

ACCOUNT (1)	DESCRIPTION (2)	ORIGINAL COST (3)
353.40	LAND AND LAND RIGHTS - TREATMENT AND DISPOSAL	20,000.00
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	7,531.56
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL	29,081.02
355.00	POWER GENERATING EQUIPMENT	10,454.90
360.00	COLLECTION MAINS - FORCE	110,884.61
361.00	COLLECTION MAINS - GRAVITY	679,746.75
361.21	COLLECTION SEWERS - MANHOLES	65,894.22
363.00	CUSTOMER SERVICE LINES	68,275.48
370.30	RECEIVING WELLS	4,091.47
371.00	PUMPING EQUIPMENT	3,866.44
380.00	TREATMENT AND DISPOSAL EQUIPMENT	201,394.71
396.00	COMMUNICATION EQUIPMENT	7,666.67
TOTAL WASTEWATER PLANT		1,208,887.83

DETAILED ORIGINAL COST AS OF DECEMBER 31, 2022

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

DETAILED ORIGINAL COST AS OF DECEMBER 31, 2022

DEPR GROUP (1)	QUANTITY (2)	SIZE (3)	VINTAGE (4)	ORIGINAL COST (5)
353.40 LAND AND LAND RIGHTS - TREATMENT AND DISPOSAL				
TREATMENT PLANT LAND	1		1971	20,000
				<u>20,000</u>
354.30 STRUCTURES AND IMPROVEMENTS - PUMPING				
GOLF PUMP STATION	1		1973	2,086
PATRICIA PUMP STATION	1		1975	1,680
WALNUT PUMP STATION	1		1978	2,549
GROUND ZERO PUMP STATION	1		1971	1,217
				<u>7,532</u>
354.40 STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL				
WASTEWATER TREATMENT PLANT	1		1971	20,925
UV SYSTEM CONTAINMENT SHED	1		2021	8,156
				<u>29,081</u>
355.00 POWER GENERATING EQUIPMENT				
GENERATOR	1		2003	9,235
DIESEL TANK	1		1971	1,219
				<u>9,235</u>
360.00 COLLECTION MAINS - FORCE				
FORCE MAINS (PVC)	1,748	6"	1980	42,911
FORCE MAINS (PVC)	749	6"	1990	27,398
FORCE MAINS (CAST IRON)	842	6"	1971	8,336
FORCE MAINS (VITRIFIED CLAY)	1,817	6"	1975	32,239
	<u>5,156</u>			<u>110,885</u>
361.00 COLLECTION MAINS - GRAVITY				
GRAVITY MAINS (PVC)	11,220	8"	1980	291,175
GRAVITY MAINS (PVC)	4,808	8"	1990	185,926
GRAVITY MAINS (PVC)	870	10"	2003	52,077
GRAVITY MAINS (DUCTILE IRON)	398	8"	1985	12,989
GRAVITY MAINS (VITRIFIED CLAY)	401	6"	1971	3,361
GRAVITY MAINS (VITRIFIED CLAY)	6,438	8"	1971	73,551
GRAVITY MAINS (VITRIFIED CLAY)	374	10"	1975	7,520
GRAVITY MAINS (VITRIFIED CLAY)	779	8"	1978	16,387
GRAVITY MAINS (VITRIFIED CLAY)	2,426	8"	1976	36,760
	<u>27,716</u>			<u>679,747</u>
361.21 COLLECTION SEWERS - MANHOLES				
MANHOLES	12		1978	9,851
MANHOLES	24		1975	16,628
MANHOLES	37		1973	17,558
MANHOLES	49		1971	21,857
	<u>122</u>			<u>21,857</u>
363.00 SERVICES				
SERVICE LATERALS - RESIDENTIAL	27		1990	14,246
SERVICE LATERALS - RESIDENTIAL	41		1978	11,972
SERVICE LATERALS - RESIDENTIAL	54		1975	13,376
SERVICE LATERALS - RESIDENTIAL	68		1973	13,694
SERVICE LATERALS - RESIDENTIAL	82		1971	14,697
SERVICE LATERALS - COMMERCIAL	1		1978	292
	<u>273</u>			<u>68,275</u>

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

DETAILED ORIGINAL COST AS OF DECEMBER 31, 2022

DEPR GROUP (1)	QUANTITY (2)	SIZE (3)	VINTAGE (4)	ORIGINAL COST (5)
370.30 RECEIVING WELLS				
WET WELL - GOLF PUMP STATION	1		1973	888
WET WELL - PATRICIA PUMP STATION	1		1975	1,127
WET WELL - WALNUT PUMP STATION	1		1978	1,314
WET WELL - GROUND ZERO PUMP STATION	1		1971	763
				<u>4,091</u>
371.00 PUMPING EQUIPMENT				
EQUALIZATION PUMPS	2		1971	1,367
PUMP STATION PUMPS	2		1973	210
PUMP STATION PUMPS	2		1975	325
PUMP STATION PUMPS	2		1978	403
PUMP STATION PUMPS	2		1971	195
TREATMENT PLANT PUMPS	2		1971	1,367
				<u>3,866</u>
380.00 TREATMENT AND DISPOSAL EQUIPMENT				
BLOWERS	1		2003	13,417
BLOWERS	2		1971	5,250
SPARE BLOWER	1		1971	1,688
UV DISINFECTION SYSTEM	1		2021	34,821
EFFLUENT SAMPLER	1		2021	3,634
CLARIFIERS	2	10,000 gal	2003	42,167
EQ TANK	1	25,000 gal	1971	1,124
EQ TANK	1	10,000 gal	1971	937
AERATION TANKS	2	50,000 gal	2003	15,321
AERATION TRAINS	2		2003	38,301
FILTER	1	2,000 gal	1971	749
BASINS	2		1971	75
FLOW METER	1		2003	1,149
MANUAL BAR SCREEN	1		1971	2,494
CHEMICAL TREATMENT EQUIPMENT	1		2021	18,183
SURGE TANK	1		1971	1,873
SLUDGE HOLDING TANK	1	25,000 gal	1971	12,713
SLUDGE HOLDING TANK	1	10,000 gal	1971	7,500
				<u>201,395</u>
396.00 COMMUNICATION EQUIPMENT				
SCADA EQUIPMENT	1		2003	7,667
				<u>7,667</u>
				<u><u>1,208,888</u></u>

PART III. CALCULATION OF ACCRUED DEPRECIATION

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

TABLE 3. SUMMARY OF SURVIVOR CURVES, ORIGINAL COST AND CALCULATED ACCRUED DEPRECIATION OF WASTEWATER SYSTEM AS OF DECEMBER 31, 2022

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	ORIGINAL COST (4)	ACCRUED DEPRECIATION (5)
353.40	LAND AND LAND RIGHTS - TREATMENT AND DISPOSAL	NONDEPR.	20,000.00	-
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	50-S1.5	7,531.56	5,221
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL	50-R2.5	29,081.02	16,435
355.00	POWER GENERATING EQUIPMENT	25-R2.5	10,454.90	7,130
360.00	COLLECTION MAINS - FORCE	65-R2.5	110,884.61	60,850
361.00	COLLECTION MAINS - GRAVITY	65-R2.5	679,746.75	349,793
361.21	COLLECTION SEWERS - MANHOLES	60-R3	65,894.22	45,795
363.00	CUSTOMER SERVICE LINES	60-R3	68,275.48	44,328
370.30	RECEIVING WELLS	40-S2	4,091.47	3,332
371.00	PUMPING EQUIPMENT	30-L2	3,866.44	3,000
380.00	TREATMENT AND DISPOSAL EQUIPMENT	40-S0	201,394.71	65,299
396.00	COMMUNICATION EQUIPMENT	10-SQ	7,666.67	7,667
TOTAL WASTEWATER PLANT			1,208,887.83	608,850

DETAILED DEPRECIATION CALCULATIONS

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	EXP. AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 50-S1.5							
NET SALVAGE PERCENT.. 0							
1971	1,217.10	50.00	2.00	24.34	13.78	0.7244	882
1973	2,085.51	50.00	2.00	41.71	14.56	0.7088	1,478
1975	1,680.26	50.00	2.00	33.61	15.38	0.6924	1,163
1978	2,548.69	50.00	2.00	50.97	16.69	0.6662	1,698
	7,531.56			150.63			5,221
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 50-R2.5							
NET SALVAGE PERCENT.. 0							
1971	20,925.27	50.00	2.00	418.51	11.28	0.7744	16,205
2021	8,155.75	50.00	2.00	163.12	48.59	0.0282	230
	29,081.02			581.63			16,435
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 25-R2.5							
NET SALVAGE PERCENT.. 0							
1971	1,219.41	25.00				1.0000	1,219
2003	9,235.49	25.00	4.00	369.42	9.00	0.6400	5,911
	10,454.90			369.42			7,130
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.53							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 360.00 COLLECTION MAINS - FORCE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	EXP. AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1971	8,336.19	65.00	1.54	128.38	22.90	0.6477	5,399
1975	32,239.13	65.00	1.54	496.48	25.48	0.6080	19,601
1980	42,910.97	65.00	1.54	660.83	28.93	0.5549	23,812
1990	27,398.32	65.00	1.54	421.93	36.44	0.4394	12,038
	110,884.61			1,707.62			60,850
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 361.00 COLLECTION MAINS - GRAVITY

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1971	76,911.79	65.00	1.54	1,184.44	22.90	0.6477	49,815
1975	7,520.49	65.00	1.54	115.82	25.48	0.6080	4,572
1976	36,760.33	65.00	1.54	566.11	26.16	0.5975	21,966
1978	16,387.39	65.00	1.54	252.37	27.53	0.5765	9,447
1980	291,174.58	65.00	1.54	4,484.09	28.93	0.5549	161,579
1985	12,989.47	65.00	1.54	200.04	32.59	0.4986	6,477
1990	185,926.03	65.00	1.54	2,863.26	36.44	0.4394	81,692
2003	52,076.67	65.00	1.54	801.98	47.22	0.2735	14,245
	679,746.75			10,468.11			349,793

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 361.21 COLLECTION SEWERS - MANHOLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1971	21,857.18	60.00	1.67	365.01	16.66	0.7223	15,788
1973	17,557.87	60.00	1.67	293.22	17.89	0.7018	12,323
1975	16,627.78	60.00	1.67	277.68	19.18	0.6803	11,312
1978	9,851.39	60.00	1.67	164.52	21.19	0.6468	6,372
	65,894.22			1,100.43			45,795
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 363.00 SERVICES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1971	14,696.63	60.00	1.67	245.43	16.66	0.7223	10,616
1973	13,693.76	60.00	1.67	228.69	17.89	0.7018	9,611
1975	13,375.58	60.00	1.67	223.37	19.18	0.6803	9,100
1978	12,263.97	60.00	1.67	204.81	21.19	0.6468	7,933
1990	14,245.54	60.00	1.67	237.90	30.23	0.4962	7,068
	68,275.48			1,140.20			44,328

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 370.30 RECEIVING WELLS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 40-S2							
NET SALVAGE PERCENT.. 0							
1971	763.27	40.00	2.50	19.08	6.26	0.8435	644
1973	887.52	40.00	2.50	22.19	6.85	0.8288	736
1975	1,127.15	40.00	2.50	28.18	7.47	0.8133	917
1978	1,313.53	40.00	2.50	32.84	8.47	0.7883	1,035
	4,091.47			102.29			3,332
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.50							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 30-L2							
NET SALVAGE PERCENT.. 0							
1971	2,928.68	30.00	3.33	97.53	6.45	0.7850	2,299
1973	209.79	30.00	3.33	6.99	6.90	0.7700	162
1975	325.17	30.00	3.33	10.83	7.37	0.7543	245
1978	402.80	30.00	3.33	13.41	8.09	0.7303	294
	3,866.44			128.76			3,000
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.33							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 380.00 TREATMENT AND DISPOSAL EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 40-S0							
NET SALVAGE PERCENT.. 0							
1971	34,402.29	40.00	2.50	860.06	10.97	0.7258	24,967
2003	110,354.37	40.00	2.50	2,758.86	26.11	0.3473	38,321
2021	56,638.05	40.00	2.50	1,415.95	38.58	0.0355	2,011
	201,394.71			5,034.87			65,299
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.50							

AQUA PENNSYLVANIA, INC.
NORTH HEIDELBERG WASTEWATER

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 10-SQUARE							
NET SALVAGE PERCENT.. 0							
2003	7,666.67	10.00				1.0000	7,667
	7,666.67						7,667
COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 0.00							