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November 7, 2024

**VIA ELECTRONIC FILING**

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

**In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Sadsbury Township Municipal Authority's assets, properties and rights related to its wastewater collection and conveyance system to Pennsylvania-American Water Company, and (2) the right of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in portions of Sadsbury Township, Pennsylvania, Lancaster County, Pennsylvania**

**Docket No. A-2023-3042058**

Dear Secretary Chiavetta:

Consistent with Ordering Paragraph 9(a) of the Pennsylvania Public Utility Commission's Order in the above-referenced proceeding, attached please find the final Original Cost Study prepared by Sheffer Consulting LLC.

Should you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Erin K. Fure".

Erin K. Fure

cc: All Parties on the attached Certificate of Service (*via electronic mail*)

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of Pennsylvania-American Water Company :  
under Section 1102(a) of the Pennsylvania Public Utility :  
Code, 66 Pa. C.S. § 1102(a), for approval of (1) the :  
transfer, by sale, of substantially all of the Sadsbury :  
Township Municipal Authority’s assets, properties and :     Docket No. A-2023-3042058, *et al.*  
rights related to its wastewater collection and :  
conveyance system to Pennsylvania-American Water :  
Company, and (2) the right of Pennsylvania-American :  
Water Company to begin to offer or furnish wastewater :  
service to the public in portions of Sadsbury Township, :  
Pennsylvania, Lancaster County, Pennsylvania :  
:  
:

**CERTIFICATE OF SERVICE**

I hereby certify that I served the above-referenced pleading upon the persons and in the manner indicated below, which service satisfies the requirements of 52 Pa. Code §1.54 (relating to service by a party).

**SERVICE VIA ELECTRONIC MAIL ON NOVEMBER 7, 2024**

Melanie El Atieh, Deputy Consumer Advocate  
Jacob D. Guthrie, Assistant Consumer Advocate  
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5<sup>th</sup> Floor, Forum Place  
Harrisburg, PA 17101-1923

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Thomas Wyatt, Esquire  
Matthew S. Olesh, Esquire  
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Obermayer Rebmann Maxwell & Hippel LLP  
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1500 Market Street, Suite 3400  
Philadelphia, PA 19102

Respectfully Submitted,



Erin K. Fure, Esquire (PA ID #312245)  
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**Attorneys for**  
***Pennsylvania-American Water Company***

***PENNSYLVANIA AMERICAN WATER COMPANY***  
***ACQUISITION OF THE***  
***SADSBURY TOWNSHIP MUNICIPAL AUTHORITY SEWER SYSTEM***

Original Cost of Sewer Utility Plant and  
Depreciation Reserve Calculations  
as of October 30, 2024

David A. Sheffer

SHEFFER CONSULTING LLC  
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Milton, DE 19668

September 2024



DAVID A SHEFFER

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Milton, DE 19968

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September 20, 2024

Scott D. Fogelsanger  
Director-Valuation Strategies  
American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055-4475

RE: Acquisition of Sadsbury Township  
Municipal Authority Sewer System

Dear Mr. Fogelsanger:

In accordance with your request, we have prepared an inventory of the sewer utility plant of the Sadsbury Township Municipal Authority Sewer System, ("Sadsbury") as of October 30, 2024.

The inventory was prepared to conform to the Uniform System of Accounts for Wastewater Utilities as prescribed by the National Association of Regulatory Utility Commissioners.

The original cost of the property of was determined from a detailed analysis of the books and records of the System and has been segregated as follows:

	Original <u>Cost</u>	Calculated <u>Reserve</u>
Depreciable Plant	\$ 3,322,661	\$ 976,005
Non-Depreciable Plant	831,054	
CIAC	1,701,802	500,165
Total Net Utility Plant in Service	\$ 2,451,913	\$ 475,840

The results of our study are discussed and supported by the Executive Summary contained in Section 1, the detailed original costs in Section 2, and the depreciation calculations in Section 3.

Respectfully submitted,  
Sheffer Consulting LLC

By: DAVID A. SHEFFER

PENNSYLVANIA AMERICAN WATER COMPANY

Acquisition of The Sadsbury Township Municipal Authority System

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PENNSYLVANIA AMERICAN WATER COMPANY

Acquisition of The Sadsbury Township Municipal Authority System

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PENNSYLVANIA AMERICAN WATER COMPANY

Acquisition of The Sadsbury Township Municipal Authority System

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# Section 1

## **PENNSYLVANIA AMERICAN WATER COMPANY**

### **Acquisition of Sadsbury Township Municipal Authority Sewer Collection System**

#### **Executive Summary**

#### **BACKGROUND**

Sadsbury Township Municipal Authority Sewer Collection System (“Sadsbury”) provides sewer collection service to approximately two hundred fifty customers located in Sadsbury Township, Lancaster County, Pennsylvania, north of the Borough of Christiana. The system is currently comprised of Phases 1, 2, 3 and 4.

The Company began construction of Phase 1 and Phase 2 of the system in 1998. Phase 3 of the system was subsequently completed in 1999 along with Phase 4 being complete in 2000. The Sadsbury system provides sewer collection to residences of a portion of Sadsbury Township, Lancaster County, Pennsylvania. Treatment is provided by neighboring municipalities of Christiana Borough and Salisbury Township.

On January 5, 2023, Pennsylvania American Water Company (PAWC) and Sadsbury, in Lancaster County finalized the deal to sell the sewer collection system assets to PAWC. The sale included all assets of the sewer collection facilities and the various components of the collection system.

## **OVERVIEW OF SADBURY FACILITIES**

The system assets acquired are for the collection of wastewater. The system contains two pump stations with submergible pumps. Approximately 6,720 feet of forced mains, 36,348 feet of gravity mains and 132 manholes. There are 171 residential and 80 non-residential customers.

## **OVERVIEW OF THE STUDY TECHNIQUES**

The study of the original cost of the system's assets was conducted in three (3) phases. First, a comprehensive utility plant inventory was conducted to ascertain and confirm the type and quality of the property owned and operated by Sadsbury.

Second, the original cost of the property was determined based on a review of the system's construction records, depreciation schedules, maps and other sources. The age of the plant was determined using information obtained from records of the Sadsbury system. Construction costs were developed utilizing available Sadsbury's construction records.

In addition, PAWC requested theoretical accrued depreciation calculations performed based upon the results of the original cost study to reflect the theoretical capital recovery of the plant in service as of October 30, 2024.

A complete discussion of the methodologies employed in the original cost study is set forth in the following sections of this report.

## **EXPLANATION OF THE STUDY**

### **Utility Plant Inventory**

A comprehensive inventory of the system's assets was performed, based upon a review of obtained records. A review of the records also provided additional knowledge of the system to aid in the inventory process.

### **Mass Property**

For the purpose of this study, "mass" property consists of utility plant records for Account 360.10 (Force Mains), Account 361.10 (Gravity Mains), Account 361.20 (Manholes) and Account 363 (Services).

For Accounts 360.10 and 361.10 footage of pipe was determined by reviewing construction documents, maps and schedules, as well as a review of system. This same procedure was utilized for manholes and services.

### **Non-Mass Property**

Detailed results of the plant inventory are set forth in Section 2 of this report by fixed capital accounts prescribed by the National Association of Regulatory Utility Commissioners. The original cost of all inventory property units is properly recorded in the following accounts:

#### **Depreciable Plant:**

354.30 Structures and Improvements - SPP  
360.10 Collection Sewers – Force Mains  
361.10 Collection Sewers – Gravity Mains  
361.20 Manholes  
363.00 Services

- 371.00 Pumping Equipment
- 393.00 Tools, Shop and Garage Equipment
- 396.00 Communication Equipment
- 334.00 Meters
- 335.00 Hydrants

Non-Depreciable Plant:

- 353.00 Wastewater Treatment Capacity

**ORIGINAL COST ANALYSIS**

The goal of the original cost study was to ascertain the original cost of the system's plant in service by fixed capital account and, within each account, to determine the original cost by retirement unit (for non-mass) or size and type (for mass property) and by vintage year. Reliable data exists to establish the age and original cost of the system's assets by account. The original cost determinations for Account 360.10 (Collection Sewers - Force Mains), Account 361.10 (Collection Sewers – Gravity Mains), Account 361.20 (Manholes) are explained as follows:

Account 360.10, Account 361.10, and Account 361.20

The original cost and footage of mains was determinable from available source documents. Construction records revealed that the pipe footage listed on the supplied documentation is accurate. Unit costs were developed utilizing the various supplied schedules. The original cost values as of October 30, 2024, for the water system Collection Sewers – Force Mains, Collection Sewers – Gravity Mains and Manholes is \$480,595, \$2,580,235 and \$114,786, respectively.

### **SUMMARY OF ORIGINAL COST**

The results of the original cost study established that the original cost of the system's utility plant in service is not less than \$4,153,715, as summarized by plant account in Section 2 (Pg. 2-1).

### **CONTRIBUTIONS IN AID OF CONSTRUCTION**

An extensive research of records was completed to determine if any contributions in aid of construction (CIAC) existed. The record research included all Sadsbury documents that were available. Based on this recorded research, the Collection System was partially funded by four grants totaling \$925,000, as summarized by the plant accounts in Section 2 (Pg. 2-1). Also, additional plant was added in the early 2000's. This additional plant is assume to be developer contributed property.

### **CUSTOMER ADVANCES FOR CONSTRUCTION**

An extensive research of records was completed to determine if any customer advances for construction (CAC) existed. The record research included all documents that were available. Based on this record research, the water system was not funded by customer advances for construction.

## **DEPRECIATION RESERVE**

Sheffer Consulting LLC, as requested, prepared a theoretical calculated depreciation reserve of the utility plant in service as of October 30, 2024. The calculated accrued depreciation reserves amount to \$976,005 as of October 30, 2024. The calculations were based upon the Straight Line-Average Service Life Methodology utilizing appropriate service lives and mortality curves for the specific fixed capital assets by category and condition of the plant at the study date.

The results of those calculations and details supporting documentation are included in Section 3 of this report.

# Section 2

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

<u>Acct. No.</u>	<u>Account Title</u>	<u>Original Cost</u>
<b><u>Depreciable Plant</u></b>		
354.30	Structures and Improvements - SPP	98,829.00
360.10	Collection Sewers - Force Mains	480,595.21
361.10	Collection Sewers - Gravity Mains	2,580,234.73
361.20	Manholes	114,786.00
363.00	Services	3,378.00
371.00	Pumping Equipment	28,755.00
393.00	Tools, Shop and Garage Equipment	5,873.00
396.00	Communication Equipment	10,210.00
	Total Depreciable Plant	\$ 3,322,660.94
<b><u>Non-Depreciable Plant</u></b>		
353.00	WW Treatment Capacity	\$ 831,054.00
	Total Non-Depreciable Plant	\$ 831,054.00
	Total Plant	\$ 4,153,714.94
<b><u>Contribution in Aid of Construction</u></b>		
354.30	Structures and Improvements - SPP	\$ 98,829.00
360.10	Collection Sewers - Force Mains	265,458.21
361.10	Collection Sewers - Gravity Mains	1,222,728.73
361.20	Manholes	114,786.00
	Total CIAC	\$ 1,701,801.94
	<b>Total Net Plant in Service</b>	<b>\$ 2,451,913.00</b>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 353.00 - WW Treatment Capacity

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
WW Treatment Capacity	1997	GPD	40,000	\$ 423,206.00
	2001	GPD	5,000	52,900.00
	2001	GPD	25,900	222,000.00
	2011	Lot		49,790.00
	2015	Lot		61,509.00
	2015	Lot		21,649.00
	Total Account 353.00			

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 354.30 - Structures and Improvements - SPP

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Pumping Station				
#1 Stolfus Feed	1999	Lot	\$	46,508.00
#2 Kauffman	2000	Lot		52,321.00
Total Account 354.30			\$	<u>98,829.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 360.10 - Collection Sewers - Force Mains

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Mains	1998	Ft	2,061	\$ 143,993.00
	1999	Ft	809	56,528.00
	2000	Ft	1,603	111,934.00
	2002	Ft	2,247	168,140.21
 Total Account 360.10				\$ 480,595.21

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 361.10 - Collection Sewers - Gravity Mains

Item	Year Installed	-----Quantity-----		Original Cost
		Unit	No.	
Mains	1998	Ft	13,002	\$ 908,588.00
	1999	Ft	5,104	356,690.00
	2000	Ft	10,111	706,295.00
	2002	Ft	8,131	608,661.73
Total Account 361.10				<u>\$ 2,580,234.73</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 361.20 - Collection Sewers - Manholes

Item	Year	-----Quantity-----		Original Cost
	Installed	Unit	No.	
Manholes	1998	Ea.	64	\$ 52,699.00
	1999	Ea.	27	22,556.00
	2000	Ea.	41	39,531.00
Total Account 361.20			132	<u>\$ 114,786.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 363.00 - Services

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Services	2009	Ea.	1 \$	3,378.00

Total Account 363.00

\$ 3,378.00

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 371.00 - Pumping Equipment

Item	Year	-----Quantity-----		Original Cost
	Installed	Unit	No.	
Hydromatic Grinder Pump HPG	2019	Ea.		\$ 11,970.00
Hydromatic AC Sub/Pump	2004	Ea.		1,687.00
Hydromatic AC Sub/Pump	2008	Ea.		7,362.00
Grinder Pump	2011	Ea.		1,436.00
Hydro Pump	2016	Ea.		6,300.00
Total Account 371.00				<u>\$ 28,755.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 393.00 - Tools, Shop Garage Equipment

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Radial Cutter	2011	Ea.	\$	5,873.00
Total Account 393.00			<u>\$</u>	<u>5,873.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 396.00 - Communication Equipment

Item	Year Installed	-----Quantity-----		Original Cost
		Unit	No.	
Six Sensaphone Sentinels	2019	Ea.	6 \$	10,210.00
Total Account 396.00				<u>\$ 10,210.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 354.30 - Structures and Improvements - SPP  
Contribution in Aid of Construction

Item	Year Installed	-----Quantity-----		Original Cost
		Unit	No.	
Pumping Station	1999	Lot		\$ 46,508.00
	2000	Lot		52,321.00
Total Account 354.30				<u>\$ 98,829.00</u>

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 360.10 - Collection Sewers - Force Mains  
Contribution in Aid of Construction

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Mains	1998	Ft	729	\$ 50,931.00
	1999	Ft	354	24,752.00
	2000	Ft	310	21,635.00
	2002	FT	2,247	168,140.21
 Total Account 360.10				\$ 265,458.21

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 361.10 - Collection Sewers - Gravity Mains  
Contribution in Aid of Construction

Item	Year Installed	-----Quantity----- Unit	No.	Original Cost
Mains	1998	Ft	4,599	\$ 321,370.00
	1999	Ft	2,235	156,184.00
	2000	Ft	1,954	136,513.00
	2002	Ft	8,131	\$ 608,661.73
Total Account 361.10				\$ 1,222,728.73

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Original Cost at October 30, 2024

Account 361.20 - Collection Sewers - Manholes  
Contribution in Aid of Construction

Item	Year	-----Quantity-----		Original Cost
	Installed	Unit	No.	
Manholes	1998	Ea.	64	\$ 52,699.00
	1999	Ea.	27	22,556.00
	2000	Ea.	41	39,531.00
Total Account 361.20			132	<u>\$ 114,786.00</u>

# Section 3

**Pennsylvania American Water Company**

Acquisition of the Sadsbury Township Municipal Authority Sewer Collection System

Summary of Original Cost, Calculated Depreciation Reserve  
and Depreciated Original Cost as of October 30, 2024  
Based Upon Broad Group/Remaining Life Procedure and Technique

<u>Acct. No.</u>	<u>Account Title</u>	<u>Original Cost</u>	<u>ASL/lowa Curve</u>	<u>Calculated Depreciation Reserve</u>	<u>Depreciated Original Cost 10/30/2024</u>
<b><u>Depreciable Plant</u></b>					
354.30	Structures and Improvements - SPP	98,829.00	55-S0	32,255.50	66,573.50
360.10	Collection Sewers - Force Mains	480,595.21	75-R3	148,723.12	331,872.09
361.10	Collection Sewers - Gravity Mains	2,580,234.73	80-R2.5	725,158.13	1,855,076.60
361.20	Manholes	114,786.00	50-S2	54,184.71	60,601.29
363.00	Services	3,378.00	47-R3	1,050.48	2,327.52
371.00	Pumping Equipment	28,755.00	30-S0.5	7,808.74	20,946.26
393.00	Tools, Shop and Garage Equipment	5,873.00	25-SQ	3,153.29	2,719.71
396.00	Communication Equipment	10,210.00	15-SQ	3,671.01	6,538.99
	Total Depreciable Plant	\$ 3,322,660.94		\$ 976,004.98	\$ 2,346,655.96
<b><u>Non-Depreciable Plant</u></b>					
353.00	WW Treatment Capacity	\$ 831,054.00		\$ -	\$ 831,054.00
	Total Non-Depreciable Plant	\$ 831,054.00		\$ -	\$ 831,054.00
	Total Plant	\$ 4,153,714.94		\$ 976,004.98	\$ 3,177,709.96
<b><u>Contribution in Aid of Construction</u></b>					
354.30	Structures and Improvements - SPP	\$ 98,829.00	55-S0	32,255.50	\$ 66,573.50
360.10	Collection Sewers - Force Mains	265,458.21	75-R3	79,552.19	185,906.02
361.10	Collection Sewers - Gravity Mains	1,222,728.73	80-R2.5	334,172.59	888,556.14
361.20	Manholes	114,786.00	50-S2	54,184.71	60,601.29
	Total CIAC	\$ 1,701,801.94		\$ 500,164.99	\$ 1,201,636.95
	<b>Total Net Plant in Service</b>	<b>\$ 2,451,913.00</b>		<b>\$ 475,839.99</b>	<b>\$ 1,976,073.01</b>

***Pennsylvania-American Water Co., Inc.***  
***Sadsbury Township***

***354.30 Structures and Improvements-SPP***

***Original Cost Of Utility Plant In Service***  
***And Development Of Calculated Depr Reserve as of October 30, 2024***  
***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 55 Survivor Curve: S0***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
1999	46,508.00	36.74	55.00	0.33196	15,439
2000	52,321.00	37.32	55.00	0.32142	16,817
<b><i>Total</i></b>	98,829.00				32,255.50

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township***

***360.10 Collection Sewers-Force Mains***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 75 Survivor Curve: R3***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
1998	143,993.00	50.00	75.00	0.33338	48,005
1999	56,528.00	50.89	75.00	0.32141	18,168
2000	111,934.00	51.80	75.00	0.30933	34,625
2002	168,140.21	53.62	75.00	0.28503	47,925
<b><i>Total</i></b>	480,595.21				148,723.12

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township***

***361.10 Collection Sewers-Gravity Mains***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 80 Survivor Curve: R2.5***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
1998	908,588.00	56.11	80.00	0.29866	271,358
1999	356,690.00	56.97	80.00	0.28791	102,696
2000	706,295.00	57.83	80.00	0.27709	195,705
2002	608,661.73	59.58	80.00	0.25531	155,399
<b><i>Total</i></b>	2,580,234.73				725,158.13

**Pennsylvania-American Water Co., Inc.**  
**Sadsbury Township**  
 361.20 Manholes

**Original Cost Of Utility Plant In Service**  
**And Development Of Calculated Depr Reserve as of October 30, 2024**  
**Based Upon Broad Group/Remaining Life Procedure and Technique**

*Salvage Value: 0% Average Service Life: 50 Survivor Curve: S2*

<i>Year</i>	<i>Original Cost</i>	<i>Expectancy</i>	<i>Avg. Service Life</i>	<i>Reserve Ratio</i>	<i>Calculated Reserve</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
1998	52,699.00	25.73	50.00	0.48550	25,585
1999	22,556.00	26.48	50.00	0.47045	10,611
2000	39,531.00	27.25	50.00	0.45504	17,988
<b>Total</b>	114,786.00				54,184.71

**Pennsylvania-American Water Co., Inc.**  
**Sadsbury Township**  
 363.00 Services

**Original Cost Of Utility Plant In Service**  
**And Development Of Calculated Depr Reserve as of October 30, 2024**  
**Based Upon Broad Group/Remaining Life Procedure and Technique**

*Salvage Value: 0% Average Service Life: 47 Survivor Curve: R3*

<i>Year</i>	<i>Original Cost</i>	<i>Expectancy</i>	<i>Avg. Service Life</i>	<i>Reserve Ratio</i>	<i>Calculated Reserve</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
2009	3,378.00	32.38	47.00	0.31098	1,050
<b>Total</b>	3,378.00				1,050.48

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township***

***371.00 Pumping Equipment***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 30 Survivor Curve: S0.5***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
2004	1,687.00	15.33	30.00	0.48889	825
2008	7,362.00	17.55	30.00	0.41487	3,054
2011	1,436.00	19.39	30.00	0.35369	508
2016	6,300.00	22.84	30.00	0.23862	1,503
2019	11,970.00	25.19	30.00	0.16027	1,918
<b><i>Total</i></b>	<b>28,755.00</b>				<b>7,808.74</b>

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township***

***393.00 Tools, Shop and Garage Eq***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 25 Survivor Curve: SQ***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
2011	5,873.00	11.50	24.83	0.53691	3,153
<b><i>Total</i></b>	5,873.00				3,153.29

**Pennsylvania-American Water Co., Inc.**  
**Sadsbury Township**  
 396.00 Communication Eq

**Original Cost Of Utility Plant In Service**  
**And Development Of Calculated Depr Reserve as of October 30, 2024**  
**Based Upon Broad Group/Remaining Life Procedure and Technique**

*Salvage Value: 0% Average Service Life: 15 Survivor Curve: SQ*

<i>Year</i>	<i>Original Cost</i>	<i>Expectancy</i>	<i>Avg. Service Life</i>	<i>Reserve Ratio</i>	<i>Calculated Reserve</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
2019	10,210.00	9.50	14.83	0.35955	3,671
<b>Total</b>	10,210.00				3,671.01

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township-CIAC***

***354.30 Structures and Improvements-SPP***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 55 Survivor Curve: S0***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
1999	46,508.00	36.74	55.00	0.33196	15,439
2000	52,321.00	37.32	55.00	0.32142	16,817
<b><i>Total</i></b>	98,829.00				32,255.50

**Pennsylvania-American Water Co., Inc.**  
**Sadsbury Township-CIAC**  
**360.10 Collection Sewers-Force Mains**

**Original Cost Of Utility Plant In Service**  
**And Development Of Calculated Depr Reserve as of October 30, 2024**  
**Based Upon Broad Group/Remaining Life Procedure and Technique**

*Salvage Value: 0% Average Service Life: 75 Survivor Curve: R3*

<i>Year</i>	<i>Original Cost</i>	<i>Expectancy</i>	<i>Avg. Service Life</i>	<i>Reserve Ratio</i>	<i>Calculated Reserve</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
1998	50,931.00	50.00	75.00	0.33338	16,980
1999	24,752.00	50.89	75.00	0.32141	7,955
2000	21,635.00	51.80	75.00	0.30933	6,692
2002	168,140.21	53.62	75.00	0.28503	47,925
<b>Total</b>	265,458.21				79,552.19

***Pennsylvania-American Water Co., Inc.***

***Sadsbury Township-CIAC***

***361.10 Collection Sewers-Gravity Mains***

***Original Cost Of Utility Plant In Service***

***And Development Of Calculated Depr Reserve as of October 30, 2024***

***Based Upon Broad Group/Remaining Life Procedure and Technique***

***Salvage Value: 0% Average Service Life: 80 Survivor Curve: R2.5***

<b><i>Year</i></b>	<b><i>Original Cost</i></b>	<b><i>Expectancy</i></b>	<b><i>Avg. Service Life</i></b>	<b><i>Reserve Ratio</i></b>	<b><i>Calculated Reserve</i></b>
<b><i>(1)</i></b>	<b><i>(2)</i></b>	<b><i>(3)</i></b>	<b><i>(4)</i></b>	<b><i>(5)</i></b>	<b><i>(6)</i></b>
1998	321,370.00	56.11	80.00	0.29866	95,980
1999	156,184.00	56.97	80.00	0.28791	44,968
2000	136,513.00	57.83	80.00	0.27709	37,826
2002	608,661.73	59.58	80.00	0.25531	155,399
<b><i>Total</i></b>	1,222,728.73				334,172.59

***Pennsylvania-American Water Co., Inc.***  
***Sadsbury Township-CIAC***  
*361.20 Manholes*

***Original Cost Of Utility Plant In Service***  
***And Development Of Calculated Depr Reserve as of October 30, 2024***  
***Based Upon Broad Group/Remaining Life Procedure and Technique***

*Salvage Value: 0% Average Service Life: 50 Survivor Curve: S2*

<i>Year</i>	<i>Original Cost</i>	<i>Expectancy</i>	<i>Avg. Service Life</i>	<i>Reserve Ratio</i>	<i>Calculated Reserve</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
1998	52,699.00	25.73	50.00	0.48550	25,585
1999	22,556.00	26.48	50.00	0.47045	10,611
2000	39,531.00	27.25	50.00	0.45504	17,988
<b><i>Total</i></b>	114,786.00				54,184.71

# Section 4



Northern Pump Station



Northern Pump Station



Northern Pump Station



Northern Pump Station



Meter Pit (Typical – 4)



Meter Pit (Typical – 4)



Southern Pump Station



Southern Pump Station



Southern Pump Station