### BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

# RE: THE YORK WATER COMPANY DOCKET NO. R-2022-3031340

### DIRECT TESTIMONY OF CONSTANCE E. HEPPENSTALL

Line

<u>No.</u>								
1	Q.	Please state your name and business address.						
2	A.	My name is Constance E. Heppenstall My business address is 1010 Adams						
3		Avenue, Audubon, Pennsylvania.						
4	Q.	By whom are you employed?						
5	A.	I am employed by Gannett Fleming Valuation and Rate Consultants, LLC.						
6	Q.	Please describe your position with Gannett Fleming Valuation and Rate						
7		Consultants, LLC, and briefly state your general duties and						
8		responsibilities.						
9	A.	My title is Senior Project Manager, Rate Studies. My duties and						
10		responsibilities include the preparation of accounting and financial data for						
11		revenue requirement and cash working capital claims, the allocation of cost						
12		of service to customer classifications, and the design of customer rates in						
13		support of public utility rate filings.						
14	Q.	Have you presented testimony in rate proceedings before a regulatory						
15		agency?						
16	A.	Yes. I have testified before the Pennsylvania Public Utility Commission ("PA						
17		PUC" or the "Commission"), the Arizona Corporation Commission, the						
18		Kentucky Public Service Commission, the Virginia State Corporate						

Commission, the Missouri Public Service Commission, the Hawaii Public Service Commission, the West Virginia Public Service Commission, the Indiana Utility Regulatory Commission, the California Public Utilities Commission, and the New Jersey Board of Public Utilities concerning revenue requirements, cost of service allocation and rate design. A list of cases in which I have testified is attached to my testimony.

### 7 Q. What is your educational background?

A. I have a Bachelor of Arts in Economics from the University of Virginia,

Charlottesville, Virginia and a Master of Science in Industrial Administration

from the Tepper School of Business at Carnegie-Mellon University,

Pittsburgh, Pennsylvania.

#### Q. Would you please describe your professional affiliations?

13 A. I am a member of the American Water Works Association, the National
14 Association of Water Companies, and the Pennsylvania Municipal Authorities
15 Association.

#### 16 Q. Briefly describe your work experience.

A. I joined the Valuation and Rate Division of Gannett Fleming, Inc. as a Rate Analyst in August 2006 and was promoted to my current position in 2012. Prior to my employment at Gannett Fleming, Inc., I was a Vice President of PriMuni, LLP where I developed financial analyses to test proprietary software in order to ensure its pricing accuracy in accordance with securities industry's conventions. From 1987 to 2001, I was employed by Commonwealth Securities and Investments, Inc. as a public finance professional where I created and implemented financial models for public

finance clients in order to create debt structures to meet clients' needs.

From 1986 to 1987, I was a public finance associate with Mellon Capital

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#### 4 Q. What is the purpose of your testimony in this proceeding?

5 A. The purpose of my testimony is to explain The York Water Company's ("York
6 Water" or the "Company") cost of service allocation study and proposed rate
7 design set forth in Exhibit No. FVIII, 2 and 3.

#### WATER COST OF SERVICE ALLOCATION STUDY

#### Q. Please describe Exhibit No. FVIII.

A. Exhibit No. FVIII, titled "Cost of Service Allocation Study as of February 29, 2024 and Proposed Customer Rates," is the report on the water cost of service study prepared for York Water. It sets forth the results of the study based on the estimated conditions during the twelve months ended February 29, 2024.

The information in the exhibit includes a description of the methods used in the study, the allocation of cost of service, and the factors on which the allocations were based.

# Q. Do you have any comments regarding the water cost of service included in your study?

Yes. The cost of service I prepared for purposes of this case continues to include a portion of the revenue requirement associated with York Water's wastewater operations with its total water operations revenue requirement, as authorized by amendments to the Public Utility Code made by Act 11 of 2012. The manner in which a portion of the Company's wastewater revenue

requirement has been allocated to the water revenue requirement for purposes of this case is explained in the Company's Statement Nos. 103 and 103W, which are the direct testimonies of Matthew Poff. Using the revenue requirement developed by the Company, as described by Mr. Poff, I prepared the cost of service study set forth in Exhibit No. FVIII. The cost of service study allocates among the water customer classes: (1) the entire revenue requirement of the Company's water operations; and (2) the portion of the revenue requirement of the Company's wastewater operations that will not be recovered from wastewater customers under the Company's proposed wastewater rates, which I will refer to, collectively, as the cost of service or total revenue requirement.

#### Q. What was the purpose of the water cost of service allocation study?

13 A. The purpose of the study was to allocate the total cost of service to the
14 several customer classifications. The study provides a basis for determining
15 the extent to which the revenues to be derived from each customer
16 classification are aligned with the cost of serving that classification.

#### Q. What method of water cost allocation was used in the study?

18 A. The base-extra capacity method, as described in the 2017 and prior editions
19 of the Water Rates Manual published by the American Water Works
20 Association, was used to allocate the costs.

#### Q. Why did you use that method?

A. The base-extra capacity method is a recognized method which allocates the cost of providing water service to customer classifications in proportion to the classification's use of commodity, facilities, and services. It is generally

accepted as a sound method for cost allocation and has been accepted by this Commission, including in the Commission's recent Final Order in Aqua Pennsylvania, Inc.'s 2021 base rate case, which was entered on May 16, 2022, at Docket Nos. R-2021-3027385, *et al.* 

#### 5 Q. Is this method described in Exhibit No. FVIII?

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6 A. Yes. It is described on pages 3 and 4 of the exhibit.

# Q. Please outline the procedure which you followed in the cost allocationstudy.

The allocation of costs to customer classifications is presented in Schedule D, pages 10 through 13 of Exhibit No. FVIII. The items of cost, which include operating expenses, depreciation expenses, taxes and income available for return, are identified in column 1 of Schedule D. The cost of each item, shown in column 3, is allocated to the several customer classifications based on the allocation factor referenced in column 2. The development of the allocation factors is presented in Schedule E.

Referring to some of the larger cost items, purchased electric power and treatment chemicals were allocated to customer classifications on the basis of average daily consumption because they tend to vary with the amount of water consumed. Pumping and water treatment costs were allocated partly on the basis of average consumption and partly on the basis of maximum day extra demand (i.e., the difference between maximum day and average day demand), inasmuch as the function of the associated facilities is generally to meet maximum day requirements. Transmission mains and maximum day booster pumping stations are allocated on the

basis of average consumption, maximum day extra demand, and fire protection demands. Costs associated with distribution mains and storage facilities were allocated partly on the basis of average consumption, partly on the basis of maximum hour extra demand, and partly on the demand for fire protection service because these facilities are designed to meet maximum hour and fire demand requirements. Fire demand costs were allocated between public and private fire service in proportion to the relative potential demands on the system by hydrants and fire services for each classification. The basis for the allocation of fire demand costs between public and private fire service is presented in Schedule G in Exhibit No. FVIII.

Costs associated with meters and services were allocated in proportion to the original cost of the meters and services serving each classification. Capital and maintenance costs associated with fire hydrants were allocated between the gravity and repumped service areas on the basis of the number of hydrants owned and maintained by the Company in each area. Costs for meter reading, billing, and customer accounting and collecting were allocated on the number of meters and number of bills for each classification. Administrative and general costs were allocated on the basis of the allocated direct costs excluding those costs requiring little administrative and general expense.

Annual depreciation accruals were allocated on the basis of the function of the facilities represented by the depreciation expense for each depreciable plant account. Certain taxes and return were allocated based on the results of allocating the original cost measure of value.

1	Q.	What were the sources of the total cost of service data set forth in the
2		third column of Schedule D?

A. The operating expenses, taxes, and income available for return were based on data prepared by York Water for submission to the Commission in support of the Company's Supplement No. 130 to Tariff Water-Pa. P.U.C. No.143.

The total operating expense in the amount of \$23,786,617 presented in Schedule D of Exhibit No. FVIII is the pro forma amount shown in Exhibit No. FIII-2 of the supporting data filed with the tariff.

The depreciation expense of \$12,960,982 by plant account, shown on Schedule D of Exhibit No. FVIII, was developed from the detail presented in Exhibit No. FVI, supplemented by additional account detail obtained from the Company's books and records. The total amount also is the pro forma amount shown in Exhibit No. FV-1 of the supporting data filed with the tariff.

The taxes and income available for return, shown Schedule D of Exhibit No. FVIII, comport with the data shown for the same items in Exhibit No. FV-1 of the supporting data filed with the tariff.

The original cost less depreciation data shown in Schedule E of Exhibit No. FVIII were calculated from data presented in Exhibit No. FVI, supplemented by some additional detail.

# Q. What is the source of the amount of unrecovered wastewater cost of service to be recovered from water rates?

A. Schedule H of Exhibit No. FVIII, sets forth the calculation of the portion of wastewater cost of service that will not be recovered from proposed

wastewater rates. This amount is determined by subtracting the total proposed wastewater revenues from the total wastewater cost of service. The unrecovered amount or \$2,670,856 will be transferred to the water cost of service as part of the revenue requirement to be recovered from water rates.

#### Q. Please explain Schedule H.

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Α. Schedule H shows the total proposed wastewater cost of service on line 1 of 7 \$28,289,886 which comes from Exhibit No. FI-2W. Line 2 shows the 8 9 calculation of the wastewater revenues under existing rates of \$4,162,264. Line 4 shows the proposed wastewater revenues of \$5,619,009, based on a 10 35% increase to the present rates. The amount of unrecovered wastewater 11 cost of service is shown on Line 6 by subtracting the total proposed 12 wastewater revenue of \$5,619,009 from the wastewater cost of service of 13 \$8,289,886 (Line 1), or \$2,670,877. 14

#### Q. How was the \$2,670,877 allocated to water customers?

A. Since most wastewater customers are residential and commercial, the
unrecovered wastewater cost of service is allocated to water customers in
the Residential and Commercial – Gravity and Residential and Commercial Repumped classifications, based on their respective water cost of service as
shown in Factor 18. The allocation is shown on the next to the last line of
Schedule D.

Q. Refer to Schedule E of Exhibit No. FVIII and explain how you determined the maximum day and maximum hour factors entered in column 3.

- A. The maximum day and maximum hour factors were based on relative customer classification demands estimated for the system. The estimates are unchanged from past studies and are supported by results of field studies conducted by our firm in the Company's service area, as well as studies for other Pennsylvania water utilities.
- 6 Q. Please explain the allocation of public fire costs.
- A. Pursuant to Section 1328 of the Public Utility Code, public fire hydrant rates are limited to 25% of the public fire cost of service. Consequently, the remaining 75% has become the permanent responsibility of the other customer classifications. These unrecovered costs have been reallocated to the other classes on Schedule D, using 5/8-inch meter equivalents.
- Q. Why did you use 5/8-inch meter equivalents to reallocate the unrecovered public fire costs?
- A. Section 1328 states that the unrecovered portion of the public fire cost of service shall be included in the fixed or service charge of the remaining classes. Allocating these costs based on 5/8-inch meter equivalents is consistent with the customer charge cost recovery and also recognizes that customers with larger-sized meters tend to have higher property values.

### **DESIGN OF WATER RATES**

- Q. Are you responsible for the design of the rate structure proposed by
  York Water in Tariff Water-Pa. P.U.C. No. 14, Supplement No. 143?
- 22 A. Yes.

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23 Q. Is the proposed rate structure presented in Exhibit No. FVIII?

- 1 A. Yes. A comparison of the present and proposed base rates is presented in Schedule I of Exhibit No. FVIII.
- Q. What are the appropriate factors to be considered in the design of therate structure?
- Α. In preparing a rate structure, one should consider the allocated costs of 5 6 service, the impact of radical changes from the present rate structure, the understandability and ease of application of the rate structure, community 7 and social influences, and the value of service. General guidelines should 8 9 be obtained from management to determine the extent to which each of these criteria is to be incorporated in the rate structure to be designed, 10 inasmuch as the pricing of a commodity or service ultimately should be a 11 function of management. 12

## 13 Q. Were guidelines provided to you by management?

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- 14 A. Yes, after discussing the results of the cost of service allocation study with management, they provided me with the following guidelines:
  - Increase public fire hydrant rates, if necessary, to recover 25% of the cost of service, in accordance with Section 1328 of Public Utility Code; and
  - Increase all remaining customer charges and consumption charges to move revenues by classification toward the indicated cost of service and so that total revenues recover the total cost of service.
- Q. Do the proposed rate schedules of Tariff Water-Pa. P.U.C. No. 14,
  Supplement No. 143 comply with the guidelines?

- A. Yes, as shown on Schedule A of Exhibit No. FVIII, the revenues under proposed rates in column 6 result in revenues that are closely aligned with the allocated cost of service shown in column 2.
- 4 Q. Were public fire hydrant rates increased?
- A. Yes. The existing public fire hydrant rates were increased to recover approximately 25% of the cost of service in the gravity service area and 25% in the repumped service area.
- Q. How does the proposed rate design take into account some of the otherfactors that you noted above?
- 10 A. The proposed rate design produces a revenue distribution that is closely
  11 aligned with cost of service for all classes and also recovers the total cost of
  12 service.
- Q. Are the proposed customer charges supported by an analysis of customer costs?
- 15 A. Yes. Refer to the schedules provided in the Appendix of Exhibit No. FVIII.
  16 The schedules show the unit costs per month for a 5/8-inch meter totaling
  17 \$30.76, with direct costs totaling \$20.71, which equals the proposed 5/8-inch
  18 customer charge of \$20.71 per month.

#### WASTEWATER COST OF SERVICE ALLOCATION STUDY

20 Q. Please describe Exhibit No. FVIII-WA.

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A. Exhibit No. FVIII-WA, titled "Cost of Service Allocation Study as of February 29, 2024, and Proposed Customer Rates," is the report on the wastewater cost of service study prepared for York Water. It sets forth the results of the

study based on the estimated conditions during the twelve months ended February 29, 2024.

The information in the exhibit includes a description of the methods used in the study, the allocation of cost of service, and the factors on which the allocations were based.

# Q. Do you have any comments regarding the wastewater cost of service included in your study?

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Yes. The wastewater cost of service I prepared for purposes of this case includes a credit from York Water's water operations, as authorized by amendments to the Public Utility Code made by Act 11 of 2012. Using the revenue requirement developed by the Company, as described by Mr. Poff, I prepared the cost of service study set forth in Exhibit No. FVIII-WA. The cost of service study allocates among the wastewater customer classes the entire revenue requirement of the Company's wastewater operations. The amount credited from the water operations is shown on Schedule A as a deduction to the wastewater revenue requirement.

# Q. What was the purpose of the wastewater cost of service allocation study?

A. The purpose of the study was to allocate the total cost of service to the several customer classifications. The study provides a basis for determining the extent to which the revenues to be derived from each customer classification are aligned with the cost of serving that classification.

#### Q. What method of cost allocation was used in the study?

A. I used the functional cost allocation methodology described in "Financing and Changes for Wastewater Systems", Manual of Practice No. 27, published by the Water Environment Federation ("Manual of Practice No. 27"). This method allocated the cost of providing wastewater service to customer classifications in proportion to each classifications' use of the service provider's facilities and services. Costs are assigned to cost components using predominant operational purposes as cost-causative factors. The functional cost method is generally accepted as a sound method for allocating the cost of wastewater service.

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# 10 Q. What procedures did you use to apply the cost allocation methodology for wastewater operations?

Each element of the cost of service is allocated to customer classifications according to the functional categories of flow, infiltration and inflow ("I&I"), customer facilities, and customer accounting. The functional costs are allocated to customer classifications based on the amount of flow contributed to the system, the amount of I&I allocated to each class, and the number of customers.

### Q. Have you summarized the results of your cost allocation study?

Yes. The results are summarized in columns 1, 2, 3, and 4 of Schedule A in Exhibit No. FVIII-WA. Column 2 sets forth the total allocated pro forma cost of service for each customer classification identified in column 1. Column 3 presents the total Act 11 revenues proposed to be transferred to the water cost of service study, and equals the difference between the cost of service and revenues under proposed rates. Column 4 shows the revised total

allocated pro forma cost of service for each customer classification identified in column 1. Column 5 presents each customer classification's cost responsibility as a percent of the total cost. The cost of service by class in column 2 was developed in Schedule D. The factors that allocate the functional costs to customer classes are presented in Schedule E. The factors that allocate the cost of service to the cost functions are shown in Schedule F of each study.

- Q. Have you compared these cost responsibilities with the proportionate revenue under existing rates for each customer classification?
- 10 A. Yes. A comparison of the allocated cost responsibilities and the percentage
  11 revenue under existing rates can be made by comparing columns 5 and 7 of
  12 each Schedule in Exhibit No. FVIII-WA. The revenues in column 8 are
  13 simply the revenues that would be required to move toward (or approximate)
  14 the cost of service in column 4, and the increase or decrease from present
  15 revenues is shown in column 10, with the percentage increase or decrease
  16 in column 11.

#### **DESIGN OF WASTEWATER RATES**

- Q. Are you responsible for the design of the rate structure proposed by York Water in Tariff Wastewater-Pa. P.U.C. No. 1, Supplement No. 14?
- 20 A. Yes.

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- 21 Q. Is the proposed rate structure presented in Exhibit No. FVIII-WA?
- 22 A. Yes. A comparison of the present and proposed base rates is presented in 23 Schedule F of Exhibit No. FVIII-WA.

- Q. What are the appropriate factors to be considered in the design of the rate structure?
- Α. In preparing a rate structure, one should consider the allocated costs of 3 service, the impact of radical changes from the present rate structure, the 4 understandability and ease of application of the rate structure, community 5 6 and social influences, and the value of service. General guidelines should be obtained from management to determine the extent to which each of 7 these criteria is to be incorporated in the rate structure to be designed, 8 9 inasmuch as the pricing of a commodity or service ultimately should be a function of management. 10
- 11 Q. Were guidelines provided to you by management?
- 12 A. The guidelines were to consolidate rates across rate zones and mitigate the
  13 increase to the West York rates which are Flat Rate 2 and
  14 Consumption Charge 2.
- Do the proposed rate schedules of Tariff Wastewater-Pa. P.U.C. No. 1,

  Supplement No. 14 comply with the guidelines?
- 17 A. Yes, as shown on Schedule A of Exhibit No. FVIII-WA, the revenues under 18 proposed rates in column 8 result in revenues moving toward the allocated 19 cost of service shown in column 4. Also, the increase to West York rates 20 was capped at 2X the average increase or 70%.

#### WASTEWATER COST OF SERVICE ALLOCATION STUDY EXLCUDING WEST

#### 2 <u>MANHEIM AQUISITION</u>

- 3 Q. Please describe Exhibit No. FVIII-WB.
- A. Exhibit No. FVIII-WB, titled "Cost of Service Allocation Study as of February 29, 2024, and Proposed Customer Rates Excluding West Manheim," is the wastewater cost of service study, excluding the West Manheim acquisition, prepared for York Water, as required in the Company's West Manheim acquisition order. It sets forth the results of the wastewater cost of service study and rate design if the costs related to the West Manheim acquisition are excluded.
- 11 Q. Does this conclude your direct testimony?
- 12 A. Yes, it does.

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### CONSTANCE E. HEPPENSTALL – LIST OF CASES TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client/Utility	<u>Subject</u>
1.	2010	AZ CC	W-01303A-09-0343 and SW-01303A-09-0343	Arizona American Water Company	Rate Consolidation
2.	2010	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Revenue Requirements
3.	2012	PA PUC	R-2012-2311725	Hanover Borough	Cost of Service/Revenue
					Requirements
4.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Revenue Requirements
5.	2013	PA PUC	R-2013-2350509	City of DuBois – Bureau of Water	Revenue Requirements
6.	2013	PA PUC	R-2013-2390244	City of Bethlehem – Bureau of Water	Revenue Requirements
7.	2014	PA PUC	R-2014-2418872	City of Lancaster – Bureau of Water	Revenue Requirements_
8.	2014	PA PUC	R-2014-2428304	Hanover Borough	Revenue and Revenue Requirements
9.	2015	KY PSC	Case No.2015-000143	Northern Kentucky Water District	Cost of Service
10.	2016	PA PUC	R-2016-2554150	City of DuBois – Bureau of Water	Cost of Service/Revenue
4.4	0040	47.00	MO 04000A 40 0445	EDOOD Meter Administration	Requirements
11.	2016	AZ CC	WS-01303A-16-0145	EPCOR Water Arizona, Inc.	Cost of Service/Rate Design
12.	2017	MO PSC	WR-2017-0285	Missouri-American Water Company	Cost of Service/Rate Design
13.	2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
14.	2017	VA SCC	PUR-2017-00082	Aqua Virginia, Inc	Cost of Service
15. 16.	2017 2017	AZ CC HI PUC	WS-01303A-17-0257	EPCOR Water Arizona, Inc	Cost of Service/Rate Design
10. 17.	2017	HI PUC	2017-0446 2017-0447	Hana Water Systems, LLC – North	Cost of Service/Rate Design Cost of Service/Rate Design
18.	2017	PA PUC	2018-200208	Hana Water Systems, LLC – South SUEZ Water Pennsylvania	3
19.	2018	KY PSC	2018-00208	Water Service Corp of KY	Revenue Requirements Cost of Service/Rate Design
20.	2018	WV PSC	18-0573-W-42t	West Virginia American Water Co.	Cost of Service
21.	2018	IN IRC	50208	Indiana American Water Company	Cost of Service/Demand Study
22.	2018	KY PSC	2018-00291	Northern Kentucky Water District	Cost of Service/Rate Design
23.	2018	KY PSC	2018-0358	Kentucky American Water	Cost of Service/Rate Design
24.	2019	PA PUC	2019-3006904	Newtown Artesian Water Co.	Revenue Reqmts./Rate Design
25.	2019	PA PUC	2019-3010955	City of Lancaster – Sewer Fund	Rev. Reqmts./Cost of Service/Rates
26.	2020	PA PUC	2020-3017206	Philadelphia Gas Works	Cost of Service
27.	2020	PA PUC	2020-3019369	Pennsylvania American Water Co.	Cost of Service/Rate Design
28.	2020	PA PUC	2020-3019371	Pennsylvania American Water Co.	Cost of Service/Rate Design
29.	2020	PA PUC	2020-3020256	City of Bethlehem	Rev. Regmts./Cost of Service/Rates
30.	2020	CA PUC	A2101003	San Jose Water Company	Rate Design
31.	2020	VA SCC	PUR-2020-00106	Aqua Virginia, Inc.	Cost of Service
32.	2021	OH PUC	21-0595-WW-AIR	Aqua Ohio, Inc	Cost of Service
33.	2021	OH PUC	21-0596-ST-AIR	Aqua Ohio, Inc	Cost of Service
34.	2021	PA PUC	R-2021-3026116	Hanover Borough	Cost of Service
35.	2021	NJ BPU	WR21071007	Atlantic City Sewerage Co.	Rev. Reqmts./Cost of Service/Rates
36.	2021	PA PUC	R-2021-3027385	Aqua Pennsylvania	Cost of Service/Rate Design
37.	2021	PA PUC	R-2021-3027386	Aqua Pennsylvania	Cost of Service/Rate Design
38.	2021	PA PUC	R-2021-3026682	City of Lancaster – Bureau of Water	Cost of Service/Rate Design
39.	2021	NV PUC	21-12025	Great Basin Water Company	Cost of Service/Rate Design
40.	2022	PA PUC	R-2021-3030218	UGI Utilities, Inc. – Gas Division	Cost of Service
41.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Rev. Req./Rate Design
42.	2022	PA PUC	R-2022-30316732	Pennsylvania American Water	Cost of Service