#### BEFORE THE

#### PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

CONSTANCE E. HEPPENSTALL

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

REGARDING COST OF SERVICE ALLOCATION

February 2024

1	Q.	Please state your name and address.			
2	A.	My name is Constance E. Heppenstall. My business address is 1010 Adams			
3		Avenue, Audubon, Pennsylvania.			
4					
5	Q.	By whom are you employed?			
6	A.	I am employed by Gannett Fleming Valuation and Rate Consultants, LLC			
7		("Gannett Fleming").			
8					
9	Q.	Please describe your position with Gannett Fleming, and briefly state your			
10		general duties and responsibilities.			
11	A.	My title is Senior Project Manager, Rate Studies. My duties and responsibilities			
12		include the preparation of accounting and financial data for revenue requirement			
13		and cash working capital claims, the allocation of cost of service to customer			
14		classifications, and the design of customer rates in support of public utility rate			
15		filings.			
16					
17	Q.	Have you presented testimony in rate proceedings before a regulatory			
18		agency?			
19	A.	Yes. I have testified before the Pennsylvania Public Utility Commission			
20		("Commission" or "PUC"), the Kentucky Public Service Commission, the Arizona			
21		Corporation Commission, the Missouri Public Service Commission, the Virginia			
22		State Corporation Commission, the Hawaii Public Utility Commission, the West			

1		Virginia Public Service Commission, the New Jersey Board of Public Utilities, the					
2		Indiana Utility Regulatory Commission, the Public Utilities Commission of Ohio,					
3		the Nevada Public Utility Commission, and the California Public Utility					
4		Commission concerning revenue requirements, cost of service allocation, rate					
5		design and revenue requirements. A list of cases in which I have testified is					
6		attached to my testimony.					
7							
8	Q.	What is your educational background?					
9	A.	I have a Bachelor of Arts degree from the University of Virginia, Charlottesville,					
10		Virginia and a Master of Science in Industrial Administration from the Carnegie-					
11		Mellon University Tepper School of Business, Pittsburgh, Pennsylvania.					
12							
13	Q.	Would you please describe your professional affiliations?					
14	A.	I am a member of the American Water Works Association ("AWWA"), the					
15		Pennsylvania Municipal Authorities Association and the National Association of					
16		Water Companies.					
17							
18	Q.	Briefly describe your work experience.					
19	A.	I joined the Valuation and Rate Division of Gannett Fleming (formerly Gannett					
20		Fleming, Inc.) in August 2006, as a Rate Analyst. Prior to my employment at					
21		Gannett Fleming, I was a Vice President of PriMuni, LLP where I developed					
22		financial analyses to test proprietary software to ensure its pricing accuracy in					

accordance with securities industry 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 to create debt structures to meet clients' needs. From 1986 to 1987, I was a public finance associate with Mellon Capital Markets.

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

A. My testimony is in support of the cost of service allocation and rate design study conducted under my direction and supervision for Veolia Water Pennsylvania, Inc. (the "Company" or "Veolia").

Α.

#### Q. Have you prepared exhibits presenting the results of your study?

Yes. Exhibit No. CEH-1 presents the results of the allocation of pro forma Veolia and Bethel Water Operations cost of service as of October 31, 2025, and the proposed rate design. Also, responses to Rate Structure and Cost of Service Filing Requirement No. RS1 are found in the Appendix to Exhibit No. CEH-1. Exhibit No. CEH-2 presents the results of the allocation of pro forma Mahoning Water Operations cost of service as of October 31, 2025. Exhibit No. CEH-3 presents the results of the allocation of pro forma Mahoning Wastewater Operations cost of service as of October 31, 2025. Also, responses to Rate Structure and Cost of Service Filing Requirement No. RS1 are found in the Appendix to Exhibit No. CEH-3. Exhibit No. CEH-4 presents the pro forma

Columbia County Wastewater operations cost of service or revenue requirements as of October 31, 2025, as compared to revenue under present and proposed rates. In addition, Exhibit No. CEH-4 shows the total wastewater cost of service (Mahoning and Columbia County Wastewater Operations) and revenues under present and proposed rates. A separate cost of service study was not performed for this area as all the customers are non-residential, and as the purpose of a cost of service study is to allocate costs by customer class, a cost of service study was not necessary.

Α.

#### VEOLIA AND BETHEL WATER OPERATIONS COST OF SERVICE ALLOCATION

#### Q. Briefly describe the purpose of your cost allocation study.

The purpose of the study was to allocate the total cost of service, which is the total revenue requirement, to the several customer classifications. In the study, the total costs were allocated to the residential, commercial, industrial, large industrial, public authority, sales for resale, private fire protection and public fire protection classifications in accordance with generally accepted principles and procedures. The cost of service allocation results in indications of the relative cost responsibilities of each class of customers. The allocated cost of service is one of several criteria appropriate for consideration in designing customer rates to produce the required revenues.

1	Q.	Have you prepared an exhibit presenting the results of your studies?
2	A.	Yes. The results of my allocation of the pro forma cost of service as of October
3		31, 2025, and proposed customer rates to produce the pro forma revenue
4		requirement as of that date are presented in Veolia Exhibit No. CEH-1.
5		
6	Q.	Please describe the method of cost allocation that was used in your study.
7	A.	The base-extra capacity method, as described in the 2017 and prior editions of
8		the Water Rates Manual published by the American Water Works Association
9		(AWWA), was used to allocate the pro forma costs. It is a recognized method for
10		allocating the cost of providing water service to customer classifications in
11		proportion to each classification's use of the commodity, facilities, and services.
12		It is generally accepted as a sound method for allocating the cost of water
13		service and has been accepted by this Commission for that purpose. It is the
14		method that was used by the Company and accepted by this Commission in the
15		Company's prior rate cases.
16		
17	Q.	Is the method described in Exhibit No. CEH-1?
18	A.	Yes. It is described on pages I-2 to I-4 of the exhibit.
19		
20	Q.	Please describe the procedure followed in the cost allocation study.
21	A.	Each identified classification of cost in the pro forma cost of service was
22		allocated to the customer classifications using appropriate allocation factors.

This allocation is presented in Schedule D on pages II-5 through II-9 of Exhibit No. CEH-1. The items of cost, which include operation and maintenance expenses, depreciation expense, 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 allocation factors referenced in column 2. The development of the allocation factors is presented in Schedule E of the exhibit.

I will use some of the larger cost items to illustrate the principles and considerations used in the cost allocation methodology. Purchased water, purchased electric power and treatment chemicals are examples of costs that tend to vary with the amount of water consumed and are thus considered base costs. They are allocated to the several customer classifications in direct proportion to the average daily consumption of those classifications through the use of Factor 1. The development of Factor 1 is shown in Schedule E of Exhibit No. CEH-1.

Other source of supply, water treatment and transmission costs are associated with meeting usage requirements in excess of the average, generally to meet maximum day requirements. Costs of this nature were allocated to customer classifications partially as base costs, proportional to average daily consumption, partially as maximum day extra capacity costs, in proportion to maximum day extra capacity, and, in the case of certain pumping stations and transmission mains, partially as fire protection costs, through the use of Factors 2

and 3. The development of the allocation factors, referenced as Factors 2 and 3, is shown in Schedule E of Exhibit No. CEH-1.

Costs associated with storage facilities and the capital costs of distribution mains were allocated partly on the basis of average consumption and partly on the basis of maximum hour extra demand, including the demand for fire protection service, because these facilities are designed to meet maximum hour and fire demand requirements. The Large Industrial class was excluded from Factor 4 since this class is served from transmission mains only. The development of the factors, referenced as Factors 4 and 5, used for these allocations is shown in Schedule E of Exhibit No. CEH-1. Fire demand costs were allocated to public and private fire protection service and general service in proportion to the relative potential demands on the system by hydrants, fire services, and commercial service lines sized to provide both fire protection and general service, as presented on Schedule G of Exhibit No. CEH-1.

Costs associated with the operation and maintenance of mains were allocated on combined bases of maximum day and maximum hour extra capacity because these facilities serve both functions. The relative weightings of Factor 3 (maximum day) and Factor 4 (maximum hour) for the operation and maintenance of mains were based on footage of mains, serving maximum day and maximum hour functions. The development of these weighted factors, referenced as Factor 6, is presented in Schedule E of Exhibit No. CEH-1.

Costs associated with meters and services facilities were allocated to customer classifications in proportion to the capital costs of the sizes and quantities of meters and services serving each classification. The development of factors for meters and services, referenced as Factor 8 and Factor 9, is presented on Schedule E of Exhibit No. CEH-1. Costs for customer accounting, billing and collecting were allocated on the basis of the number of customers for each classification, and costs for meter reading were allocated on the basis of metered customers. The development of these factors, referenced as Factor 12 and Factor 13, is presented in Schedule E of Exhibit No. CEH-1.

Administrative and general costs were allocated on the basis of allocated direct costs excluding those costs, such as purchased water, power, and chemicals which require little administrative and general expense. The development of factors for this allocation, referenced as Factor 14, is presented in Schedule E of Exhibit No. CEH-1. Annual depreciation accruals were allocated on the basis of the function of the facilities represented by the depreciation expense for each depreciable plant account. The original cost less depreciation of utility plant in service was similarly allocated for the purpose of developing factors, referenced as Factor 18, for allocating items such as income taxes and return. The development of Factor 18 is presented in Schedule E of Exhibit No. CEH-1.

1	Q.	What was the source of the total cost of service data set forth in column 3					
2		of Schedule D of Veolia Exhibit No. CEH-1?					
3	A.	The pro forma costs of service are set forth in Exhibit GRH-1.					
4							
5	Q.	Refer to Schedule E, pages II-11 through II-15 of Exhibit No. CEH-1, and					
6		explain the source of the system maximum day and maximum hour ratios					
7		used in the development of factors referenced as Factors 2, 3 and 4.					
8	A.	The ratios were based on a review of experienced Company data. The					
9		maximum day ratio of 1.3 times the average day approximates the ratio of					
10		maximum daily send-out experienced by the Company in past years. The					
11		system maximum hour ratio of 1.8 times the average hour was estimated based					
12		on the relationship of system maximum hour ratios to maximum day ratios.					
13							
14	Q.	How are the customer class extra capacity factors determined?					
15	A.	The customer class extra capacity factors were primarily based on the customer					
16		class demand study conducted for the last rate case.					
17							
18	Q.	What factors were considered in estimating the maximum day extra					
19		capacity and maximum hour extra capacity demands used for the customer					
20		classifications in the development of Factors 2, 3 and 4?					
21	A.	The estimated demands were based on judgment which considered field studies					
22		of actual customer class demands conducted for the Company, field					

1		observations of the service areas of the Company, field studies of similar service
2		areas in Pennsylvania, and generally-accepted customer class maximum day
3		and maximum hour demand ratios.
4		
5	Q.	Please describe the reallocation of public fire costs.
6	A.	The cost of service study reallocates the unrecovered portion of public fire
7		protection to the residential, commercial, industrial and public classifications.
8		This was done pursuant to Section 1328 of the Pennsylvania Public Utility Code,
9		which states that public fire hydrant rates may only recover 25% of the cost of
10		service and the unrecovered portion should be recovered in the other classes'
11		fixed charges.
12		
13	Q.	How did you allocate the unrecovered portion of public fire service?
14	A.	Based on the requirement that these costs are to be recovered in fixed charges, I
15		allocated the unrecovered public fire costs using Factor 20, which is based on
16		the meter equivalents of the residential, commercial, industrial, large industrial
17		and public classifications.
18		
19	Q.	Have you summarized the results of your cost allocation study?
20	A.	Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Veolia
21		Exhibit No. CEH-1. Column 2 sets forth the total allocated pro forma cost of
22		service as of October 31, 2025 for each customer classification identified in

1		column 1. Column 3 presents each customer classification's cost responsibility						
2		as a percent of the total cost.						
3								
4	Q.	Have you compared these cost responsibilities with the proportionate						
5		revenue under existing rates for each customer classification?						
6	A.	Yes. A comparison of the allocated cost responsibilities and the percentage						
7		revenue under existing rates can be made by comparing columns 3 and 5 of						
8		Schedule A of Veolia Exhibit No. CEH-1. A similar comparison of the percentage						
9		cost responsibilities (relative cost of service) and the percentage of pro forma						
10		revenues (relative revenues) under proposed rates can be made by comparing						
11		columns 3 and 7 of Schedule A of Exhibit No. CEH-1.						
12								
13		MAHONING WATER OPERATIONS COST OF SERVICE ALLOCATION						
14	Q.	Please describe Exhibit No. CEH-2, the Mahoning Water Operations Cost of						
15		Service Study.						
16	A.	The Company was required to perform a cost of service study for Mahoning						
17		Water Operations as part of the order approving the sale dated December 20,						
18		2018. This cost of service study was performed in the same manner as the						
19		Veolia Water Operations cost of service study previously described.						

1	M	AHONING WASTEWATER OPERATIONS COST OF SERVICE ALLOCATION
2	Q.	Please describe the overall cost of service allocation methodology for the
3		Company's Mahoning Wastewater Operations as shown in Exhibit No.
4		CEH-3.
5	A.	The Company was required to perform a cost of service study for Mahoning
6		Wastewater Operations as part of the order approving the sale dated December
7		20, 2018.
8		The purpose of the study is to allocate the total cost of service, which is
9		the total revenue requirement, to the several customer classifications. In the
10		studies, the total costs are allocated to the residential and non-residential
11		customer classifications in accordance with generally accepted cost of service
12		principles and procedures.
13		
14	Q.	Have you prepared an exhibit presenting the results of your studies?
15	A.	Yes. The results of my allocations of the pro forma cost of service as of October
16		31, 2025, and proposed customer rates to produce the pro forma revenue
17		requirements for each division as of that date are presented in Exhibit No. CEH-3
18		
19	Q.	Please describe the method of cost allocation that was used in your
20		studies.
21	A.	I used the functional cost allocation methodology described in "Financing and
22		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 water service.

Α.

## 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 and relative size of customers.

Α.

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

Yes. The results are summarized in Schedule A in Exhibit No. CEH-3. Column 2 of Schedule A sets forth the total allocated pro forma cost of service for each customer classification identified in column 1. Column 3 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 B. The factors used to

1		allocate the cost of service by function to customer class are shown in Schedule
2		C. The cost of service by function, reflected in Schedule B, was developed in
3		Schedule D. The factors that allocate the cost of service to the cost functions are
4		presented in Schedule E.
5		
6	Q.	Have you compared these cost responsibilities with the proportionate
7		revenue under existing rates for each customer classification?
8	A.	Yes. A comparison of the allocated cost responsibilities and the percentage
9		revenue under existing rates can be made by comparing columns 3 and 5 of
10		Schedule A in Exhibit No. CEH-3. The revenues in column 6 are simply the
11		revenues that would be required to move toward (or approximate) the cost of
12		service in column 3, and the increase or decrease from present revenues is
13		shown in column 8, with the percentage increase or decrease in column 9.
14		
15		COLUMBIA COUNTY WASTEWATER OPERATIONS
16	Q.	Please describe the Schedules A and A-1 of Exhibit No. CEH-4 for the
17		Company's Columbia County Wastewater Operations.
18	A.	As stated previously in my direct testimony, as the purpose of a cost of service
19		study is to allocate costs by customer class, a separate cost of service study was
20		not performed for this area as all the customers are non-residential. Schedule A
21		shows a comparison of the cost of service (or revenue requirement) for Columbia
22		County Wastewater Operations as compared to revenues under present and

1		proposed rates. A revenue contribution was applied from Mahoning to mitigate
2		the increase to the Columbia County Wastewater customers. See testimony of
3		Veolia Witness Greg R. Herbert. Schedule A-1 shows the entire wastewater cost
4		of service and revenues under present and proposed rates.
5		
6	Q.	Does this complete your direct testimony?
7	A.	Yes, it does. However, I reserve the right to supplement my testimony as
8		additional issues and facts arise during the course of the proceeding. Thank
9		you.

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

	<u>Year</u>	<u>Jurisdictio</u> n	<u>Docket</u> No.	Client Utility	<u>Subject</u>
1.	2010	ÄZ 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 Reqmts
3.	2012	PA PUC	R-2012- 2311725	Hanover Borough	Cost of Service/Revenue Reqmts
4.	2012	PA PUC	R-2012- 2310366	City of Lancaster – Sewer Fund	Revenue Reqmts
5.	2013	PA PUC	R-2013- 2350509	City of DuBois – Bureau of Water	Revenue Reqmts
6.	2013	PA PUC	R-2013- 2390244	City of Bethlehem – Bureau of Water	Revenue Reqmts
7.	2014	PA PUC	R-2014- 2418872	City of Lancaster – Bureau of Water	Revenue Reqmts
8.	2014	PA PUC	R-2014- 2428304	Hanover Borough	Revenue and Revenue Reqmts
9.	2015	KY PSC	Case No.2015- 000143	Northern Kentucky Water District	Cost of Service
10.	2016	AZ CC	WS-01303A- 16-0145	EPCOR Water Arizona, Inc.	Cost of Service/Rate Design
11.	2016	PA PUC	R-2016- 2554150	City of DuBois – Bureau of Water	Cost of Service/Revenue Reqmts
12.	2017	AZ CC	WS-01303A- 17-0257	EPCOR Water Arizona, Inc	Cost of Service/Rate Design
13.	2017	HI PUC	2017-0446	Hana Water Systems, LLC – North	Cost of Service/Rate Design
14.	2017	HI PUC	2017-0447	Hana Water Systems, LLC – South	Cost of Service/Rate Design
15.	2017	MO PSC	WR-2017- 0285	Missouri-American Water Company	Cost of Service/Rate Design
16.	2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
17.	2017	VA SCC	PUR-2017- 00082	Aqua Virginia, Inc	Cost of Service
18.	2018	IN IRC	50208	Indiana American Water Company	Cost of Service/Demand Study
19.	2018	KY PSC	2018-00208	Water Service Corp of KY	Cost of Service/Rate Design
20.	2018	KY PSC	2018-00291	Northern Kentucky Water District	Cost of Service/Rate Design
21.	2018	KY PSC	2018-0358	Kentucky American Water	Cost of Service/Rate Design
22.	2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue Reqmts
23.	2018	WV PSC	18-0573-W- 42t	West Virginia American Water Co.	Cost of Service
24.	2019	PA PUC	R-2019- 3006904	Newtown Artesian Water Co.	Revenue Reqmts./Rate Design
25.	2019	PA PUC	R-2019- 3010955	City of Lancaster – Sewer Fund	Rev. Reqmts./Cost of Service/Rates
26.	2020	CA PUC	A2101003	San Jose Water Company	Rate Design
27.	2020	PA PUC	R-2020- 3017206	Philadelphia Gas Works	Cost of Service
28.	2020	PA PUC	R-2020- 3019369	Pennsylvania American Water Co.	Cost of Service/Rate Design
29.	2020	PA PUC	R-2020- 3019371	Pennsylvania American Water Co.	Cost of Service/Rate Design
30.	2020	PA PUC	R-2020-	City of Bethlehem	Rev. Reqmts./Cost of Service/Rates

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

	<u>Year</u>	<u>Jurisdictio</u>	<u>Docket</u>	Client Utility	<u>Subject</u>
		<u>n</u>	<u><b>No.</b></u> 3020256		
31.	2020	VA SCC	PUR-2020- 00106	Aqua Virginia, Inc.	Cost of Service
32.	2021	NJ BPU	WR21071007	Atlantic City Sewerage Co.	Rev. Reqmts./Cost of Service/Rates
33.	2021	NV PUC	21-12025	Great Basin Water Company	Cost of Service/Rate Design
34.	2021	PA PUC	R-2021- 3026116	Hanover Borough	Cost of Service
35.	2021	PA PUC	R-2021- 3027385	Aqua Pennsylvania	Cost of Service/Rate Design
36.	2021	PA PUC	R-2021- 3027386	Aqua Pennsylvania	Cost of Service/Rate Design
37.	2021	PA PUC	R-2021- 3026682	City of Lancaster – Bureau of Water	Cost of Service/Rate Design
38.	2021	PUCO	21-0595-WW- AIR	Aqua Ohio, Inc	Cost of Service
39.	2021	PUCO	21-0596-ST- AIR	Aqua Ohio, Inc	Cost of Service
40.	2022	KY PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
41.	2022	PA PUC	R-2021- 3030218	UGI Utilities, Inc. – Gas Division	Cost of Service
42.	2022	PA PUC	R-2022- 3031704	Borough of Ambler	Rev. Req./Rate Design
43.	2022	PA PUC	R-2022- 30316732	Pennsylvania American Water	Cost of Service
44.	2022	PA PUC	R-2022- 3031340	York Water Company	Cost of Service/Rate Design
45.	2022	PA PUC	R-2022- 3032806	York Water Company	Cost of Service/Rate Design
46.	2022	PUCO	22-1094-WW- AIR	Aqua Ohio Inc.	Cost of Service
47.	2022	PUCO	22-1096-ST- AIR	Aqua Ohio Inc.	Cost of Service
48.	2023	NJBPU	WR23050292	Middlesex Water Company	Cost of Service/Rate Design
49.	2023	PA PUC	R-2023- 3037933	Philadelphia Gas Works	Cost of Service
50.	2023	PA PUC	R-2023- 3043189	Pennsylvania American Water Co.	Cost of Service
51.	2023	PA PUC	R-2023- 3043190	Pennsylvania American Water Co.	Cost of Service
52	2024	NJ BPU	WR24010057	Aqua New Jersey, Inc.	Cost of Serice