

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

DANE WATSON

REGARDING

DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. What is your name and business address?**

2 A. A. My name is Dane A. Watson. My business address is 101 E. Park Blvd. Suite
3 220, Plano, Texas 75074.

4

5 **Q. By whom are you employed and in what capacity?**

6 A. I am a Partner in Alliance Consulting Group (“Alliance”). Alliance provides
7 consulting and expert services to the utility industry.

8

9 **Q. Please summarize your educational background and other qualifications.**

10 A. I hold a Bachelor of Science degree in Electrical Engineering from the University
11 of Arkansas at Fayetteville and a Master’s Degree in Business Administration from
12 Amberton University.

13

14 **Q. Do you hold any special certification as a depreciation expert?**

15 A. Yes. The Society of Depreciation Professionals (“the Society”) has established
16 national standards for depreciation professionals. The Society administers an
17 examination and has certain required qualifications to become certified in this field.

18 I have met all requirements and am a Certified Depreciation Professional (“CDP”).

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. Please outline your experience in the field of depreciation.**

2 A. Since graduating from college in 1985, I have worked in the area of depreciation
3 and valuation. I founded Alliance in 2004 and am responsible for conducting
4 depreciation, valuation, and certain accounting-related studies for utilities in
5 various industries. My duties related to depreciation studies include the assembly
6 and analysis of historical and simulated data, conducting field reviews, determining
7 service life and net salvage estimates, calculating annual depreciation, presenting
8 recommended depreciation rates to utility management for its consideration, and
9 supporting such rates before regulatory bodies.

10 My prior employment from 1985 to 2004 was with Texas Utilities (“TXU”).
11 During my tenure with TXU, I was responsible for, among other things, conducting
12 valuation and depreciation studies for the domestic TXU companies. During that
13 time, I also served as Manager of Property Accounting Services and Records
14 Management in addition to my depreciation responsibilities.

15 I have twice been Chair of the Edison Electric Institute (“EEI”) Property
16 Accounting and Valuation Committee and have been Chairman of EEI’s
17 Depreciation and Economic Issues Subcommittee. I am a Registered Professional
18 Engineer in the State of Texas and a Certified Depreciation Professional. I am a
19 Senior Member of the Institute of Electrical and Electronics Engineers (“IEEE”) and
20 served for several years as an officer of the Executive Board of the Dallas Section
21 of IEEE as well as national and worldwide offices. I have served as President of
22 the SDP twice.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. Have you previously provided testimony in regulatory proceedings?**

2 A. Yes. In my 39-year career, I have conducted depreciation studies, filed written
3 testimony and/or testified in more than 300 cases before more than thirty-five
4 different state and regulatory agencies across the United States. I have also
5 appeared in international proceedings in North America. I conducted deprecation
6 studies for Veolia entities in different jurisdictions: Delaware in Docket 19-0615,
7 Idaho in SUZ-W-20-02, New Jersey in WR20110729, and New York in Case No.
8 23-W-0111. A list of my appearances is shown in Exhibit (DAW-1). I have also
9 appeared in Federal Energy Regulatory Commission Docket No. 02-7-00 as an
10 industry panelist on asset retirement obligations. A listing of my testimony
11 appearances is found in Exhibit (DAW-1).

12

13 **PURPOSE OF DIRECT TESTIMONY**

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

15 A. I sponsor and support the depreciation study performed for Veolia Water
16 Pennsylvania, Inc. (“Veolia Water Pennsylvania” or the “Company”) for water and
17 wastewater assets (“Veolia Water Pennsylvania, Inc. Water and Waste Water
18 Utility Depreciation Study”). The depreciation study, attached as Exhibit (DAW-2),
19 produces the depreciation rates used to determine the depreciation expense for
20 Veolia Water Pennsylvania assets included in this filing.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. Have you prepared any exhibits in connection with your testimony?**

2 A. Yes. I have prepared or supervised the preparation of the following exhibits:
3 Exhibit (DAW-1) is a listing of my appearances before various regulatory bodies;
4 and Exhibit (DAW-2) is the depreciation study for Veolia Water Pennsylvania.

5

6 **Q. What is the definition of depreciation used by public utilities?**

7 A. The most widely recognized utility accounting definition of depreciation is that of
8 the American Institute of Certified Public Accountants, which states:

9 Depreciation accounting is a system of accounting which aims to
10 distribute the cost or other basic value of tangible capital assets, less
11 salvage (if any), over the estimated useful life of the unit (which may
12 be a group of assets) in a systematic and rational manner. It is a
13 process of allocation, not of valuation.¹

14 Depreciation expense is systematically allocated to accounting periods over
15 the life of the properties. The amount allocated to any one accounting period does
16 not necessarily represent the loss or decrease in value that will occur during a
17 particular period. Thus, depreciation is considered an expense or cost to provide
18 for the loss in service value, rather than a loss or decrease in market value. The
19 utility accrues depreciation based on the original cost of all property included in
20 each depreciable plant account.

21 Public utilities maintain the depreciation reserve (also known as
22 accumulated depreciation) on a group basis, meaning that groups are created at
23 a plant account level. Depreciation expense is charged on a monthly basis to each

¹ Accounting Research Bulletin No. 43, Chapter 9, Paragraph 5 (June 1953).

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 group's depreciation reserve using the depreciation accrual rates approved by the
2 regulatory body. When an asset retires (before, after, or right at the average
3 service life), the full cost of the retirement is subtracted from the depreciation
4 reserve. Because the depreciation rate is based on an average life, the individual
5 asset is assumed to be fully depreciated at retirement. Any gross salvage for an
6 asset is added to the accumulated depreciation whereas any cost of removal is
7 deducted from the depreciation reserve. This methodology has been approved by
8 the Pennsylvania Public Utility Commission ("PUC") for Veolia Water
9 Pennsylvania, Inc. as well as other regulated entities under its jurisdiction. Thus,
10 in accounting for regulated entities, the full cost of depreciable property on
11 retirement, less the net salvage amount, if any, is charged to the depreciation
12 reserve.

13

14 **Q. Is there a standard approach to conducting a depreciation study?**

15 A. Yes. Generally, there are four phases in performing a depreciation study: data
16 collection, analysis, evaluation and calculation. Data collection entails the
17 gathering of historical investment and retirement activity including salvage and cost
18 of removal experience. Analysis involves the determination of mortality
19 characteristics using the data gathered in the first phase. Evaluation requires an
20 understanding of history and accounting practices and gives consideration to the
21 utility's plans and expectations. The calculation phase utilizes the information and

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 determinations made in the first three phases and results in the development of
2 recommended depreciation rates.

3

4 **Q. What are mortality characteristics?**

5 A. Mortality characteristics are the basic parameters that determine depreciation
6 rates. For this discussion, mortality characteristics include average service life,
7 lowa-type retirement dispersion curves, and net salvage allowance.

8

9 **Q. What is a retirement dispersion?**

10 A. Retirement dispersion merely recognizes that groups of assets have individual
11 assets of different lives, i.e., different assets may retire at differing ages.
12 Retirement dispersion is the spread of retirements by age around the average
13 service life for each group of assets. Standard dispersion patterns (i.e. survivor
14 curves, such as the standardized lowa Curves) are useful because they make
15 calculations of the remaining life of existing property possible and allow life
16 characteristics to be compared.

17

18 **Q. What is an observed survivor curve?**

19 A. An observed survivor curve is a plot, or graph of the retirement dispersion for a
20 specific company using its recorded retirement and survivor history as a function
21 of age. This observed curve is essentially a graphical representation of the
22 company's history.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. What is a standardized survivor curve?**

2 A. The standardized survivor curves are various retirement (dispersion) patterns
3 found across utilities and are useful in determining the life and remaining life for
4 the Company's assets. The observed survivor curve derived from the Company
5 history is matched to these known generalized curves, such as the lowa-type
6 curves, to provide an estimate of average service life.

7
8 **Q. What are the lowa-Type curves?**

9 A. The lowa-type curves were devised empirically by the Engineering Research
10 Institute at what is now Iowa State University to provide a set of standard definitions
11 of retirement dispersion. Through common usage, revalidation and regulatory
12 acceptance, these curves have become a descriptive standard for the life
13 characteristics of industrial property. The Engineering Research Institute collected
14 dated retirement information on many types of industrial and utility property and
15 devised empirical curves that matched the range of patterns found. A total of 18
16 curves were defined. There were six left-skewed, seven symmetrical and five
17 right-skewed curves, varying from wide to narrow dispersion patterns. The lowa-
18 curve naming convention allows the analyst to relate easily to the patterns. The
19 left-skewed curves are known as the "L series", the symmetrical as the "S series"
20 and the right-skewed as the "R series." A number identifies the range of
21 dispersion. A low number represents a wide pattern and a high number a narrow

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 pattern. The combination of one letter and one number defines a unique
2 dispersion pattern.

3

4 **Q. What analytical tool was used to help determine the life and dispersion**
5 **curves in this study?**

6 A. For types of property such as source of supply, pumping plant, mains, treatment
7 facilities, and general plant assets, actuarial analysis (retirement rate method) was
8 used based on the detailed accounting records. Actuarial analysis evaluates
9 historical asset retirement experience where vintage data is available and sufficient
10 retirement activity was present.

11

12 **Q. Is there a standard system of calculating depreciation rates for a utility?**

13 A. Yes. A depreciation system is comprised of a method, procedure and technique.
14 The predominant method utilized in the utility industry is straight-line. There are
15 two general procedures, average life group (broad) ("ALG") and equal life group
16 ("ELG") approved by the appropriate regulatory agencies. The PUC has adopted
17 the ELG procedure and remaining-life technique in recent cases and this
18 procedure and technique is utilized in this depreciation study. This methodology
19 was recently approved by the PUCP in Docket Number R-2018-3000834 for the
20 Pennsylvania water and wastewater assets on plant at December 31, 2017. At the
21 request of Veolia, this study uses the ELG depreciation procedure to group the
22 assets within each account. After an average service life and dispersion were

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 selected for each account, those parameters were used to estimate what portion
2 of the surviving investment of each vintage was expected to retire. The
3 depreciation of the group continues until all investment in the vintage group is
4 retired. ELG groups are defined by their respective account dispersion, life, and
5 salvage estimates. A straight-line rate for each ELG group is computed and
6 accumulated across each vintage. The resultant rate for each ELG group is
7 designed to recover all retirements less net salvage as each vintage retires. The
8 ELG procedure recovers net book cost over the life of each ELG group rather than
9 averaging many components. It also closely matches the concept of component
10 or item accounting found in accounting textbooks.

11

12 **VEOLIA WATER PENNSYLVANIA DEPRECIATION STUDY**

13 **Q. Did you prepare the Veolia Water Pennsylvania Depreciation Study?**

14 A. Yes. The study (shown as Exhibit (DAW-2)) analyzes the life for the property
15 groups associated with Veolia Water Pennsylvania assets at December 31, 2021.
16 Net salvage was incorporated using traditional net salvage, which will be discussed
17 more later in this testimony.

18

19 **Q. What property is included in the depreciation study?**

20 A. For water, there are five general classes, or functional groups: Source of Supply
21 Plant, Pumping Plant, Water Treatment Plant, Transmission and Distribution Plant,
22 and General Plant used to treat and deliver water. For wastewater, there are two

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 general classes, or functional groups: Collection, Treatment and Disposal Plant
2 and General Plant used to treat wastewater.

3
4 **Q. What definition of “depreciation” have you used for the purposes of**
5 **conducting a depreciation study and preparing your testimony?**

6 A. The term “depreciation,” as used herein, is considered in the accounting sense;
7 that is, a system of accounting that distributes the cost of assets, less net salvage
8 (if any), over the estimated useful life of the assets in a systematic and rational
9 manner. Depreciation is a process of allocation, not valuation. Depreciation
10 expense is systematically allocated to accounting periods over the life of the
11 properties. The amount allocated to any one accounting period does not
12 necessarily represent the loss or decrease in value that will occur during that
13 particular period. Thus, depreciation is considered an expense or cost, rather than
14 a loss or decrease in value. The Company accrues depreciation expense by
15 applying approved depreciation rates to the original cost of all property included in
16 each depreciable plant account. Upon retirement, the full cost of depreciable
17 property, less the net salvage amount, if any, is charged to the depreciation
18 reserve.

19
20 **Q. Please describe your depreciation study approach.**

21 A. I conducted the depreciation study in four phases for Veolia Water Pennsylvania
22 as described in the Detailed Discussion portion in my Exhibit (DAW-2). The four

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 phases are: Data Collection, Analysis, Evaluation, and Calculation. During the
2 initial phase of the study, I collected historical data to be used in the analysis. After
3 the data was assembled, I performed analyses to determine the life and net
4 salvage percentage for the different property groups being studied. As part of this
5 process, I conferred with field personnel, engineers, and managers responsible for
6 the installation, operation, and removal of the assets to gain their input into the
7 operation, maintenance, and salvage of the assets. The information obtained from
8 field personnel, engineers, and managerial personnel, combined with the study
9 results, were then evaluated to determine how the results of the historical asset
10 activity analysis, in conjunction with the utility's expected future plans, should be
11 applied. Using all of these resources, I then calculated the depreciation rate for
12 each account.

13

14 **Q. What depreciation system did you use to calculate the proposed**
15 **depreciation rates for Veolia Water Pennsylvania?**

16 A. I used the straight-line depreciation method, equal life group (ELG) procedure, and
17 remaining life technique to calculate the proposed depreciation and amortization
18 accrual amounts and rates for Veolia Water Pennsylvania. In the ELG Remaining
19 Life system, the annual depreciation rate for each group is computed by dividing
20 (1 – Net Salvage Percentage) by the Average Service Life of the equal life group.
21 The resulting annual accrual amounts of all depreciable property were computed
22 by multiplying the original cost of all account level depreciable property by each

VWPA STATEMENT NO. 5
 DIRECT TESTIMONY OF DANE WATSON
 REGARDING DEPRECIATION STUDY

1 account-level depreciation rate. The computations of the annual depreciation rates
 2 are shown in Exhibit (DAW-2), Appendix A.

3

4 **Q. Please summarize the results of your depreciation study.**

5 A. The study results in a total increase of \$0.6 million in annual depreciation
 6 expense compared to the depreciation rates currently in effect. Table 1 below
 7 summarizes the increase in annual accrual by utility function.

8

TABLE 1

Veolia Water Pennsylvania, Inc.
 Comparison of Proposed Depreciation Rates
 As of December 31, 2021

Water

Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Source of Supply	13,873,035	348,639	298,875	(49,764)
Pumping Equipment	17,109,183	600,205	862,587	262,382
Treatment Equipment	66,212,049	1,913,933	1,843,323	(70,611)
Transmission and Distribution	322,504,386	6,311,888	6,595,395	283,507
General	25,151,698	1,370,140	1,529,891	159,752
General Plant AR 15 Water Imbalance			180,571	180,571
	<u>444,850,351</u>	<u>10,544,805</u>	<u>11,310,642</u>	<u>765,837</u>

Sewer

Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Collection, Treatment and Disposal	5,499,333	427,078	254,631	(172,446)
General Plant	20,876	234	1,898	1,663
General Plant AR 15 Sewer Imbalance			538	538
Total Sewer	<u>5,520,209</u>	<u>427,312</u>	<u>257,067</u>	<u>(170,245)</u>
Total Veolia PA	<u>450,370,560</u>	<u>10,972,117</u>	<u>11,567,709</u>	<u>595,592</u>

9 Tables 2 and 3 show the depreciation rates in the study recommended for each
 10 account.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 2		
Account	Description	Proposed Rate
304.2	Structures and Improvements Supply	2.20%
305.2	Collecting and Impounding Reservoirs	1.93%
306.2	Lake River and Other Intakes	1.95%
307.2	Wells and Springs	2.06%
308.2	Infiltration Galleries and Tunnels	4.84%
310.2	Power Generation Equipment	6.92%
311.2	Electric Pumping Equipment	4.74%
311.2	Diesel Pumping Equipment	3.39%
311.4	Other Pumping Equipment	7.00%
304.3	Purification Structures & Improv	2.66%
320.3	Water Treatment Equ	2.37%
320.3	Water Treat Painting	10.00%*
320.3	Chemical treatment	4.97%
	*New Additions Only	
304.4	Structures and Improvements T&D	2.50%
330.4	Distribution Reservoirs and Standpipes	2.71%
331.4	Transmission and Distribution Mains	1.42%
333.4	Services	1.78%
334.4	Meters and Meter Installations	5.63%
335.4	Hydrants	1.81%
304.5	General Plant Office Buildings	2.91%
341.5	Transportation Equipment	18.04%
345.5	Power Operated Equipment	10.00%
340.50	Computer Hardware	20.00%
340.50	Computer Software	20.00%
340.50	Office Furniture and Fixtures	6.67%
340.50	Computer Software Lighthouse	12.50%
342.50	Stores Equipment	5.56%
343.50	Shop and Garage	5.00%
344.50	Tools & Work Equip	5.00%
344.50	Laboratory Furniture & Equipment	6.67%

VWPA STATEMENT NO. 5
 DIRECT TESTIMONY OF DANE WATSON
 REGARDING DEPRECIATION STUDY

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VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 2		
Account	Description	Proposed Rate
346.50	Communication Equipment	10.00%
347.50	Miscellaneous Equipment	6.67%

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 3		
Account	Description	Proposed Rate
354.4	Structures and Improvements	3.00%
360.2	Pump Station Force Mains	3.26%
361.2	Collection Sewers - Gravity	3.25%
371.4	Pumping Equipment	15.34%
380.4	Treatment and Disposal Equipment	3.71%
393.00	Tools & Work Equip	5.00%
396.00	Communication Equipment	10.00%

- Q. Are there accounts which have significant amounts of capital projected in the Future Test Year and Fully Projected Future Test Year?**
- A. Yes. Many accounts have large amounts of capital projected for future periods. In particular the Company plans increases in capital expenditures for Accounts 320.3, Water Treatment Painting and painting for assets in Account 330.4- Distribution Reservoirs and Standpipes. The tanks in the treatment function for Account 320.3 are currently fully accrued. As assets are added to that account, a rate of 10% based on the current life parameter is requested.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 For account 330.4, Distribution Reservoirs and Standpipes, tank painting is a
2 separate property unit in that account which currently makes up about 25% of the
3 investment at year end 2021. Tank painting expenditures for that account will be
4 recovered over the composite life for that account.

5

6 **Q. What factors influence the depreciation rates for an account?**

7 A. In the remaining-life depreciation system, the primary factors that influence the
8 depreciation rate for an account are: 1) the depreciable life of the account, and 2)
9 the net salvage for the account.

10

11 **Q. What factors influenced the proposed rates for Veolia in your depreciation
12 study?**

13 A. All of these factors influenced the proposed depreciation rates for Veolia Water.
14 The drivers of the increase in depreciation rates and resulting depreciation
15 expense are the additional investment added since the last depreciation study and
16 changes in the asset lives, and changes in net salvage proposals. For Veolia
17 Water Pennsylvania the life indications for the majority of the asset accounts
18 stayed the same. Of the 30 accounts analyzed, 5 accounts had longer lives, 7
19 accounts had shorter lives, 14 accounts remained unchanged and 4 accounts
20 lacked a life parameter so no comparison was possible. Of the 5 accounts that
21 had longer lives, the largest increases were Account 304.4 Transmission and

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 Distribution Structures and Improvements and Account 304.2 Pumping Structures
2 and Improvements, which had increases of 25 years and 10 years, respectively.
3 The largest accounts by plant balance, Account 343 Transmission and Distribution
4 Mains retained the same life and 345 Services increased the service life by 8 years.
5 Accounts with the greatest decreases in lives were Account 308.2 Infiltration
6 Galleries with a decrease of 19 years, and Accounts 304.3 Purification Structures
7 and Account 311.2 Electric Pumping Equipment - each had a decrease of 10
8 years.

9 For Veolia Water Pennsylvania Wastewater., the life indications for the
10 majority of the asset accounts stayed the same. Of the 7 accounts analyzed, 3
11 accounts had longer lives, 1 account had a shorter life, and 3 accounts had no life
12 parameter so no comparison was possible. The account with an increase in life
13 was Account 354.4 Structures and Improvements which moved from 18 years to
14 40 years. The account with the decrease in life was Account 371 Pumping
15 Equipment which had a decrease of 2 years.

16 These changes are addressed more fully in the Depreciation Study report
17 attached as Exhibit DAW-2 to this testimony.

18

19 **Q. What method did you use to analyze historical data to determine life**
20 **characteristics?**

21 A. I have used the same analysis methods to perform this depreciation study that
22 were used in the prior study for the 2019 rate case. In much the same manner as

VWPA STATEMENT NO. 5
 DIRECT TESTIMONY OF DANE WATSON
 REGARDING DEPRECIATION STUDY

1 human mortality is analyzed by actuaries, depreciation analysts use models of
 2 property mortality characteristics that have been validated in research and
 3 empirical applications. For those accounts where aged retirements were available,
 4 actuarial analysis was used; for accounts with limited historical retirements, I relied
 5 on professional judgement and information provided by Company subject matter
 6 experts. Further detail on these methods is found in the life analysis section of
 7 Exhibit (DAW-2).

8

9 **Q. HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR EACH**
 10 **ASSET GROUP?**

11 A. The establishment of appropriate average service lives for each account was
 12 determined by using the actuarial analysis method. Graphs and tables supporting
 13 the actuarial analysis along with the chosen Iowa Curves used to determine the
 14 average service lives for analyzed accounts are found in the Life Analysis section
 15 of Exhibit (DAW-2). A summary of the average service life and chosen Iowa curve
 16 for each account is shown in Tables 4 and 5.

17

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 4					
Acct	Description	Existing Average Life	Existing Iowa Curve	Proposed Average Life	Proposed Iowa Curve
Depreciated Accounts					
304.2	Source of Supply Structures and Improvements	55	R2	65	R1
305.2	Collection and Impounding Reservoirs	65	S1	85	R3

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 4					
Acct	Description	Existing Average Life	Existing lowa Curve	Proposed Average Life	Propos ed lowa Curve
Depreciated Accounts					
306.2	Lake, Rivers and Other Intakes	65	R2.5	60	R2
307.2	Wells and Springs	48	R2	52	R2.5
308.2	Infiltration Galleries and Tunnels	40	R2.5	21	L3
310.2	Power Generation Equipment	NA	NA	30	R2
311.2	Elec. Pumping Equipment	36	R0.5	26	R0.5
311.2	Oil Pumping Equipment	35	S2	30	R3
311.4	Pumping Equip	NA	NA	26	R0.5
304.3	Purification Structures & Improv	55	S1.5	45	R1
320.3	Water Treatment Equ	50	R1.5	50	R1.5
320.3	WaterTreatPainting	10	SQ	10	SQ
320.3	Chemical treatment	25	S0.5	21	L3
304.4	Structures and Improvements T&D	40	R3	65	R1
330.4	Distribution Reservoirs and Standpipes	45	R1.5	46	R4
331.4	Transmission and Distribution Mains	80	R3	80	R3
333.4	Services	60	S2.5	68	R3
334.4	Meters and Meter Installations	25	S1.5	22	L4
335.4	Hydrants	60	R4	65	R4
304.5	General Office Bldg	45	R2..5	45	R1.5
340.50	Computer Hardware	5	SQ	5	SQ
340.50	Computer Software	5	SQ	5	SQ
340.50	Office Furniture and Fixtures	15	SQ	15	SQ
340.50	Computer Software Lighthouse	8	SQ	8	SQ
341.50	Transportation Equip	7	L3	7	L3
342.50	Stores Equipment	NA	NA	18	R2
343.50	Shop and Garage	20	SQ	20	SQ

VWPA STATEMENT NO. 5
 DIRECT TESTIMONY OF DANE WATSON
 REGARDING DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 4					
Acct	Description	Existing Average Life	Existing lowa Curve	Proposed Average Life	Propos ed lowa Curve
Depreciated Accounts					
343.50	Tools & Work Equip	20	SQ	20	SQ
344.50	Laboratory Furniture & Equipment	15	SQ	15	SQ
345.50	Power Operated Equip Communication Equipment	NA	NA	10	L3
346.50	Communication Equipment	10	SQ	10	SQ
347.50	Miscellaneous Equipment	15	SQ	15	SQ

1

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 5					
Acct	Description	Existing Average Life	Existing lowa Curve	Proposed Average Life	Propos ed lowa Curve
Depreciated Accounts					
354.4	Structures and Improvements	17.99	L0	40	R2
360.2	Pump Station Force Mains	NA	NA	40	R2
361.2	Collection Sewers - Gravity	30.30	L0	40	R2
371.4	Pumping Equipment	17.99	L0	15	R2
380.4	Treatment and Disposal Equipment	17.99	L0	30	R2
393.00	Tools & Work Equip	NA	NA	20	SQ
396.00	Communication Equipment	NA	NA	10	SQ

2

3 **Q. What is net salvage?**

4 A. While discussed more fully in the study itself, net salvage is the difference between
 5 the gross salvage (what is received in scrap value for the asset when retired) and
 6 the removal cost (cost to remove and dispose of the asset). Salvage and removal

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 cost percentages are calculated by dividing the current cost of salvage or removal
2 by the original installed cost of the asset.

3 **Q. How did you determine the net salvage percentages for each asset group?**

4 A. I followed the methodology used in the PUCP's past orders, which have adopted
5 the position that an average of net salvage expense should be used to calculate
6 net salvage and included in the overall depreciation expense of the Company.
7 Therefore, while neither the Company nor Alliance agrees with this position, the
8 Company wished to avoid significant controversy on this issue and directed
9 Alliance to follow this methodology.

10 As a result, it was agreed to use an average of recent historical net salvage
11 experience. For water assets, the Company used a 5 year average from 2017-
12 2021 to make that computation. As a result, a net salvage amount of \$612,742
13 was developed and has been incorporated into the total annual accrual amount for
14 the Company as shown on Appendix B. Appendix D provides the calculation of
15 this net salvage accrual amount.

16 For wastewater assets, the Company used a 5 year average from 2017-
17 2021 to make that computation. As a result, a net salvage amount of \$0 was
18 developed and has been incorporated into the total annual accrual amount for the
19 Company as shown on Appendix B. Appendix D provides the calculation of the \$0
20 used for the annual net salvage accrual amount.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 **Q. Is this a reasonable method for determining net salvage rates?**

2 A. Yes. The method used to establish appropriate net salvage percentages for each
3 account was determined by using the same methodology that was approved in the
4 recent cases before the PUCP.² It is also the methodology commonly employed
5 throughout the industry and is the method recommended in authoritative texts.³
6

7 **CONCLUSION**

8 **Q. What account depreciation rates are you proposing, and how do they**
9 **compare with the current rates?**

10 A. The proposed depreciation rates for each account are listed previously in my
11 testimony in Tables 2 and 3. The current and proposed depreciation rates, and
12 my underlying calculations used to support my recommendations, are included in
13 Appendix B of Exhibit (DAW-2).
14

15 **Q. Do you have any concluding remarks?**

16 A. Yes. The depreciation study and analysis performed under my supervision fully
17 supports setting depreciation rates at the level I have indicated in my testimony
18 and underlying depreciation study. The Company should continue to periodically
19 review the annual depreciation rates for its property. In this way, all customers will

² See Docket Nos. R-2022-3031672 (Pennsylvania American Water) and R-2018-3000834, the Company's last depreciation study.

³ Public Utility Depreciation Practices, published by the National Associate of Regulatory Commissioners, 1996, p. 157-161, Also Depreciation Systems, by Drs. F.K, Wolf and W.C. Fitch, 1994, Iowa State Press, p. 51-55.

VWPA STATEMENT NO. 5
DIRECT TESTIMONY OF DANE WATSON
REGARDING DEPRECIATION STUDY

1 be charged for their appropriate share of the capital expended for their benefit. My
2 depreciation study describes the extensive analysis performed and the resulting
3 rates that are now appropriate for Company property. The Company's
4 depreciation rates should be set consistent with my recommendations in order to
5 allow recovery of the Company's total investment in property over the estimated
6 remaining life of the assets.

7

8 **Q. Does this conclude your direct testimony at this time?**

9 A. Yes, it does. However, I reserve the right to supplement my testimony as additional
10 issues and facts arise during the course of the proceeding.