

PHILADELPHIA WATER DEPARTMENT
REBUTTAL STATEMENT NO. 1R

BEFORE THE
PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD

In the Matter of the Philadelphia Water Department's Proposed Change in Water, Wastewater, and Stormwater Rates and Related Charges	Fiscal Years 2026 – 2027
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Rebuttal Testimony
on behalf of
the Philadelphia Water Department
to
Public Advocate Witness
Lafayette K. Morgan, Jr.

Dated: May 16, 2025

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q1. PLEASE STATE YOUR NAMES AND POSITIONS.

A1. My name is Lawrence Yangalay. My position with the Philadelphia Water Department (“PWD” or the “Department”) is Deputy Commissioner of Finance.

Testifying with me are: Charles Mathews, who is a Director of Public Financial Management; Peter Nissen, who is the Managing Director of Acacia Financial Group, Inc.; Ann Bui, Dave Jagt and Brian Merritt who are members of the Black & Veatch Management Consulting, LLC (“Black & Veatch” or “B&V”) team; Stephen J. Furtek who is the General Manager of the Department’s Engineering and Construction Division and Vahe Hovsepien who is the Water Engineering Assistant Manager of the Department’s Engineering and Construction Division; and Benjamin Jewell, who is the First Deputy Commissioner for the Philadelphia Water Department.

Q2. HAVE ANY WITNESSES ON THIS PANEL PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A2. Yes. I provided testimony and schedules in PWD Statement 2A. Charles Mathews and Peter Nissen provided testimony and schedules in PWD Statement 2B. Stephen J. Furtek and Vahe Hovespien provided testimony and schedules in PWD Statement 3. Benjamin Jewell provided testimony and schedules in PWD Statement 4A. Black & Veatch provided direct testimony and schedules in PWD Statement 7.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A3. In this rebuttal, we provide the Department’s response to adjustments, recommendations, and criticisms of Lafayette K. Morgan, Jr. in his direct testimony (“PA St. 1”) submitted on behalf of the Public Advocate (“Advocate”, “PA” or “Public Advocate”). Please also note that the Advocate and Mr. Morgan are hereafter referred to interchangeably.

Q4. PLEASE IDENTIFY THE SCHEDULES THAT ACCOMPANY THIS REBUTTAL TESTIMONY.

A4. The following schedules accompany our rebuttal testimony.

Schedule 1R-1: Precipitation Trends by Fiscal Year

Schedule 1R-2: Class 800 Transfers – Aggregate Escalation Factor Comparison

II. NEED FOR RATE RELIEF

Q5. DOES THE PUBLIC ADVOCATE CONCLUDE THAT THE DEPARTMENT DOES NOT NEED RATE RELIEF?

A5. No. Broadly speaking, the Public Advocate witness, Lafayette Morgan concludes that the Department needs rate relief for FY 2026 and FY 2027. The differences between the Department’s recommendation on additional revenues and the Public Advocate’s recommendation can be summarized as follows:

Participant Proposals for Additional Revenues (Dollars in Thousands)			
	PWD	Public Advocate	Difference
	Schedule BV-1, Table C-1A, Lines 4-5	Schedule LKM-1 Lines 4a and 5a ¹	
Incremental Additional Revenues			
FY 2026	\$73,630	\$53,216	\$20,414
FY 2027	\$58,858	\$49,384	\$9,474
Total Additional Revenues			
	Schedule BV-1, Table C-1A, Line 9	Schedule LKM-1 Line 9a ²	
FY 2026	\$73,630	\$53,216	\$20,414
FY 2027	\$148,795	\$114,416	\$34,379

Q6. DOES THE DEPARTMENT AGREE WITH THE CONCLUSIONS OF THE MR. MORGAN?

A6. No. As explained in Section II through IX of this rebuttal testimony, the Advocate's proposals are unsupported and should be rejected.

Q7. DOES THE DEPARTMENT BELIEVE THAT THE PUBLIC ADVOCATE'S PROPOSALS, IF ACCEPTED, WOULD BE GOOD FOR PWD OR ITS CUSTOMERS?

A7. No. Taken as a whole, the Public Advocate's proposals in PA St. 1 will leave the Department underfunded, potentially compromising both the level of service provided to customers and the Department's financial standing.

¹ Per Schedule LKM-1 5/13/25 Errata.

² Per Schedule LKM-1 5/13/25 Errata.

1 In the following sections of this testimony, we criticize the Public Advocate's approach
2 for several reasons. Most prominently, however, the Public Advocate's use of
3 unsupported or ill-conceived adjustments to historical data in projecting revenues for the
4 rate period (FY 2026 and FY 2027) leads to its erroneous finding that less rate relief is
5 needed than requested by the Department.

6 7 **III. FINANCIAL REQUIREMENTS**

8
9 **Q8. DOES THE PUBLIC ADVOCATE CONTEST ANY OF THE FINANCIAL**
10 **REQUIREMENTS AND GOALS SET FORTH IN THE DEPARTMENT'S**
11 **FINANCIAL PLAN?**

12 **A8.** No. Mr. Morgan does not question any of the targeted financial metrics previously
13 approved by the Rate Board in its 2018 Rate Determination. Mr. Morgan's testimony also
14 tracks the Department's recommendations regarding financial requirements and goals.

15
16 For example, the Financial Plan (Schedule FP-1) calls for debt service coverage of 1.27
17 times for FY 2026 and 1.30 times for FY 2027. See Schedule BV-1, Table C-2, line 5.
18 The Public Advocate recommends a debt service coverage of 1.27 times for FY 2026 and
19 1.30 times for FY 2027. (Schedule LKM-1, Line 25a).

20 21 **IV. OPERATING REVENUES**

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Q9. THE PUBLIC ADVOCATE RECOMMENDS AN ADJUSTMENT TO THE DEPARTMENT'S PROJECTED OPERATING REVENUES. PLEASE RESPOND.

A9. Mr. Morgan recommends several changes to the projection of the Department's revenues. (PA St. 1 at 10-11; Schedule LKM-1 at Lines 1a, 2a, 3a, 10a, 11a). The impact of these adjustments increases both revenue under existing rates projections as well as other revenues, and in turn reduces the required revenue adjustments.

The differences between the operating revenues recommended by the Department and the Public Advocate are summarized in the table below.

Participant Proposals for Revenues Under Existing (Dollars in Thousands)			
	PWD	Public Advocate	Difference Increase/ (Decrease)
	Schedule BV-1, Table C-1A, Line 3	Schedule LKM-1 Line 3a	
FY 2025	\$889,717	\$892,805	+\$3,088
FY 2026	\$903,462	\$907,177	+\$3,715
FY 2027	\$899,377	\$903,488	+\$4,111

Participant Proposals for Other Revenues (Dollars in Thousands)			
	PWD	Public Advocate	Difference Increase/ (Decrease)
	Schedule BV-1, Table C-1A, Line 11	Schedule LKM-1 Line 11a	
FY 2026	\$29,726	\$39,774	\$10,047
FY 2027	\$29,624	\$39,942	\$10,317

**Q10. DO YOU AGREE WITH THE PUBLIC ADVOCATE’S CHANGES TO
OPERATING REVENUE PROJECTIONS?**

A10. No. We do not agree with Mr. Morgan’s proposed changes to operating revenue projections.

Please note that the exact adjustment made by Mr. Morgan and their revenue impacts in dollars are not delineated separately in his direct testimony. The way in which they are presented would make it appear that they are all separate adjustments, when in fact some are interrelated.

Mr. Morgan presents his adjustments³ in the following order:

1. Use of “3-Year Average Growth Rate for Volume Escalation Factors”
2. Use of “3-Year Average Growth for Other Sewer Revenues”
3. Use of “3-Year Average [Account] Growth for Miscellaneous Revenues”
4. Use of “3-Year Average Billed Volume Per Account”
5. Use of “1-year Average Level of Usage for Wholesale Sewer Customers”

His presentation gives the reader the impression that these are all separate adjustments, when in fact several are interrelated and influence the overall projections. Factors related to the billed volume growth and the average billed volume per account are utilized in combination to develop overall billed volume projections. These factors should be considered and evaluated, not just on an individual basis, but how relative to how they impact projections in total. In addition, “Other Sewer Revenues” and “Usage for

³ Morgan Adjustments 1, 4 and 5 are captured in the comparison of Revenue Under Existing Rates, and Adjustments 2 and 3 are captured in the comparison of Other Revenues presented in the prior response.

Wholesale Sewer Customers” are also related to billed volume projections, with the former being derived from the projected billings under existing rates.

For the benefit of the Rate Board, we’ve ordered Mr. Morgan’s adjustments as follows:

- Billed Volume Related Revenue Adjustments to Revenues Under Existing Rates:
 - Average Usage Per Account
 - Growth in Usage Per Account
 - Wholesale Sewer Usage (i.e., billed volumes)
- Other Revenue Adjustments:
 - Other Sewer Revenue Adjustments
 - Miscellaneous Revenue Adjustments

The above presentation groups the adjustments to align with the presentation shown in both Tables C-1A and Schedule LKM-1. Billed Volume Related Revenue Adjustments to Revenues Under Existing Rates are included in aggregate on Lines 1a and 2a in LKM-1 as well as the overall total for revenues under existing rates presented on Line 3a. Other Revenue Adjustments are included in aggregate on Line 11a – Other Operating Revenue in Schedule LKM-1.

We also note, that while not clearly stated in his direct testimony, Mr. Morgan’s adjustments to miscellaneous revenues, as presented Schedule LKM-1 at Lines 11a, also include revenue adjustments proposed by Mr. Colton⁴ in his direct testimony in this rate proceeding. We will discuss the adjustments, proposed by Mr. Colton, and as presented in Schedule LKM-1 in a separate section of this testimony.

⁴ See PA Statement 3 – Direct Testimony of Roger D. Colton on Behalf of the Philadelphia Public Advocate.

Q11. THE PUBLIC ADVOCATE RECOMMENDS PROJECTING THE RATE YEAR VOLUME BASED ON THE THREE-YEAR AVERAGE OF THE ANNUAL GROWTH RATE. (PA ST. 1 AT 10). PLEASE RESPOND.

A11. We disagree with this recommendation. Mr. Morgan proposes using the three-year average of the annual growth rate in usage per account in lieu of the three-year average growth over the three-year historical period.

Mathematically, the factor that represents the actual average growth over the historical three-year period is the three-year average growth over the three-year historical period and not the average of the annual change during those three years.

In applying these factors to historical data as a test of accuracy, the application of the Department's approach (average growth over the historical three-year period) to the historical data always results in a calculated projection equal to the actual values.

- For example, when the three-year average growth from FY 2021 to FY 2024 for the total system usage per account of (0.50%) is applied to the actual FY 2021 usage per account for total system of 10.70 Mcf per account the calculated projection of FY 2024 usage per account is 10.54 Mcf per account which is equal to the actual FY 2024 total system usage per account.
- However, the application of the Public Advocate's approach (three-year average of the annual change), which is (0.48%) for system total, to the actual FY 2021 usage per account results in a calculated projection of FY 2024 usage per account of 10.55 Mcf per account.

This simple test of the proposed approach illustrates that with the three-year historical period we are utilizing for the projection basis, the Public Advocate's approach to developing an average growth factor for the usage per account understates the average decrease in account usage experienced over this period.

The table below presents a comparison of the Volume per Account Growth Factors proposed by the Public Advocate and PWD.

Volume per Account Growth			
	Public Advocate	PWD	DELTA
Senior Citizens			
5/8" Meter	-0.99%	-1.00%	0.01%
> 5/8" Meter	23.53%	13.85%	9.68%
General Service (Residential)			
5/8" Meter	-1.00%	-1.00%	0.00%
> 5/8" Meter	-10.04%	-10.06%	0.02%
General Service (Commercial)			
5/8" Meter	-0.65%	-0.71%	0.05%
> 5/8" Meter	0.33%	0.30%	0.03%
General Service (Industrial)			
5/8" Meter	-0.76%	-0.91%	0.15%
> 5/8" Meter	-3.54%	-3.68%	0.13%
General Service (Public Utilities)			
5/8" Meter	24.69%	19.67%	5.02%
> 5/8" Meter	3.55%	3.04%	0.51%
PHA	1.29%	0.14%	1.15%
Charities & Schools	8.47%	7.92%	0.55%
Hospital/University	7.77%	7.33%	0.43%
Hand Billed	-6.62%	-6.85%	0.23%
Scheduled	-14.30%	-16.03%	1.73%
Fire Service	0.00%	0.00%	0.00%

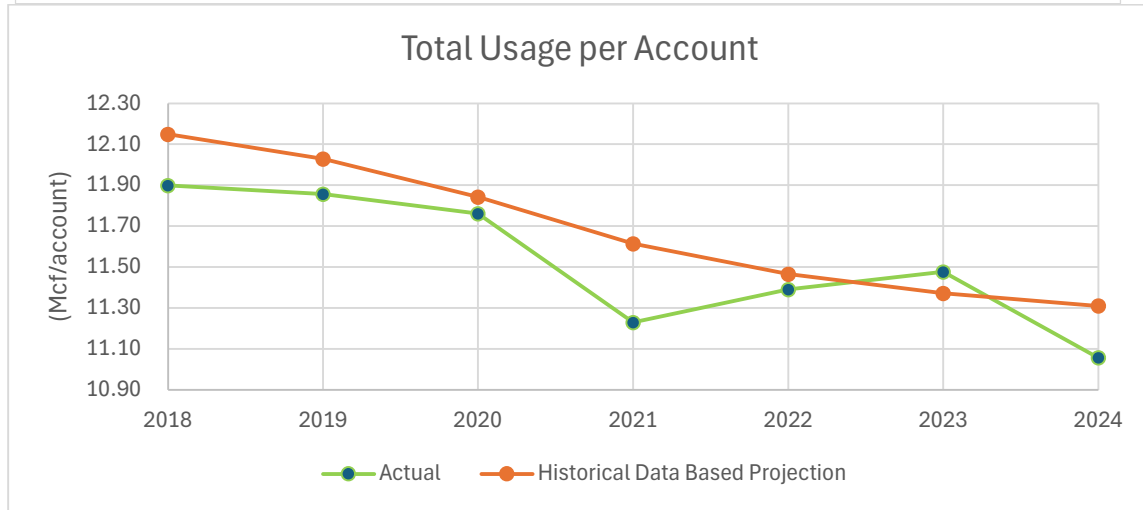
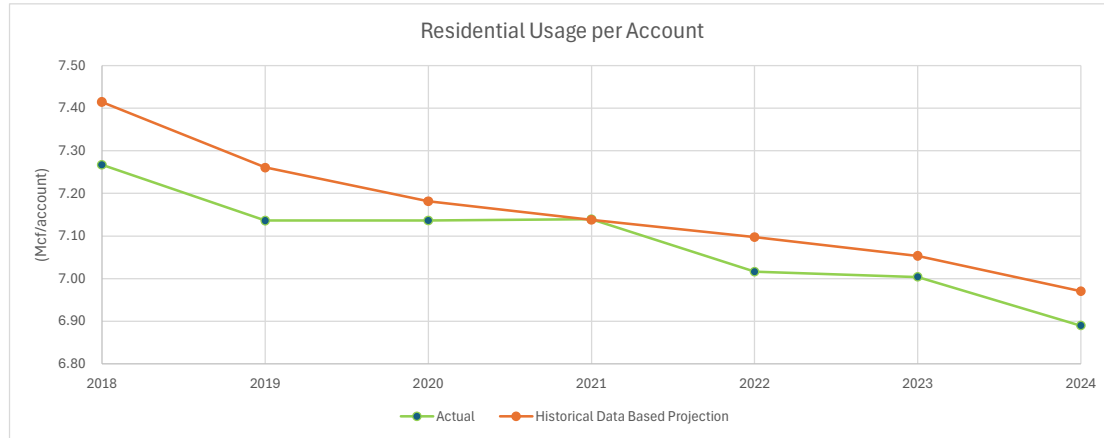
Mr. Morgan is recommending growth factors that are optimistic and reflect: a) a slower decline in billed volumes per account than the Department would expect; and b) higher overall billed volumes than proposed by the PWD.

Q12. THE PUBLIC ADVOCATE RECOMMENDS CHANGES TO THE PROJECTION BASIS FOR THE “WATER CUSTOMER BILLED VOLUME PER ACCOUNT.” PA ST. 1 AT 11). PLEASE RESPOND.

A12. We disagree with Mr. Morgan’s recommendation to establish the projection basis for the water customer billed volume per account based on the three-year average during FY 2022 to FY 2024.

PWD’s usage per account has a long-term declining trend. The use of a historical average as the basis for the projections understates the continued declining trend in usage per account over the 3-year period and results in overstated projections of usage per account which yield overstated projections of billed volumes, billings and revenues.

To test the reasonableness of Mr. Morgan’s projection basis assumption, the Department applied his projection basis to historical actual data and compared the calculated projection of usage per account using his approach to the actual usage per account over the historical period. The following graphs illustrate the results from this analysis for the residential usage and total usage per account.



As illustrated in these graphs, the projection of the usage per account based on the Public Advocate's proposed projection basis (historical three-year average usage per account adjusted based on the three-year average of the annual change in usage per account) overstates actuals in all but one year during the historical period of FY 2018 to FY 2024.

It should be noted that the Advocate's projection basis was reflected in the 2023 Rate Determination and contributed, in part, to the lower revenues the Department collected relative to the revenue projections in the 2023 Rate Determination⁵.

⁵ Please refer to PWD St. 2A, Schedule FP-1, Page FSP-4 FY 2024 Revenues were \$34.3 million below projections from the 2023 Rate Determination. As presented on FSP-12 of the same schedule, FY 2025 revenues are expected to be \$36.8 million lower than the projections from the 2023 Rate Determination.

The table below compares Mr. Morgan's recommendation for Billed Volume Per Account (3-Year Average) vs. the Water Department's recommendation based on the most recent actual experience.

Billed Volume Per Account (MCF) Comparison			
	Public Advocate	PWD	DELTA
Senior Citizens			
5/8" Meter	5.61	5.55	0.06
> 5/8" Meter	11.62	16.32	-4.70
General Service (Residential)			
5/8" Meter	6.26	6.21	0.05
> 5/8" Meter	28.81	25.79	3.02
General Service (Commercial)			
5/8" Meter	10.04	9.75	0.29
> 5/8" Meter	141.01	138.85	2.16
General Service (Industrial)			
5/8" Meter	12.03	11.56	0.47
> 5/8" Meter	136.02	129.31	6.71
General Service (Public Utilities)			
5/8" Meter	7.66	8.42	-0.76
> 5/8" Meter	82.97	91.91	-8.94
PHA	28.12	25.52	2.60
Charities & Schools	77.03	76.59	0.44
Hospital/University	819.74	827.5	-7.76
Hand Billed	1908.81	1671.99	236.82
Scheduled	4.62	4.5	0.12
Fire Service	0.26	0.12	0.14

In all but three categories, Mr. Morgan is recommending to use higher Billed Volume Per Accounts figures when compared to the Water Department's recommendations. When considering the Water Department's recent experience, we are concerned that use of Mr.

1 Morgan's approach will again lead to over-estimation of revenues under existing rates
2 and understate the Department's need for rate relief.
3

4 **Q13. THE PUBLIC ADVOCATE RECOMMENDS CHANGES TO THE**
5 **PROJECTIONS FOR WASTEWATER/SEWER REVENUES FROM**
6 **WHOLESALE CUSTOMERS. (PA ST. 1 AT 11). PLEASE RESPOND.**

7 A13. Mr. Morgan recommends revising the projection of Wholesale wastewater revenue to
8 reflect a projection of billed volumes based on the most recent fiscal year wholesale
9 billed volume. We disagree with his recommendation.
10

11 **Q14. DID THE ADVOCATE EXPLAIN WHY HE RECOMMENDED A ONE-YEAR**
12 **AVERAGE TO PROJECT WHOLESALE BILLED VOLUMES, AS OPPOSED**
13 **TO A THREE-YEAR AVERAGE?**

14 A14. Not really. In his testimony, Mr. Morgan simply states that he "believe[s] the three-year
15 average understates wholesale sewer usage." (PA St. 1 at 11). He does not explain any
16 reasons supporting his "belief." He then recommends using only the FY 2024 level of
17 usage in determining wholesale sewer revenues.
18

19 Mr. Morgan notes elsewhere in his testimony (i.e., in the description of his adjustment to
20 use 3-year averages Other Sewer Revenues), that such an adjustment was made as a
21 "matter of consistency." He takes a similar approach and states that he applies the "3-year
22 average growth" for his proposed adjustments to Miscellaneous Revenues (Other, State &
23 Federal Grants, Permits Issued by L&I (L&I) and Miscellaneous (Employee Benefit +
24 Procurement)). We will discuss the merits of these adjustments in separate responses
25 presented later in this section. We mention them here as this appears to be Mr. Morgan's

1 lone point of departure for application of 3-year based average factors in the development
2 of his proposed revenue adjustments. He believes the 3-year average to be “understated”
3 and proposed the use of the FY 2024 level of usage instead.
4

5 Mr. Morgan’s recommendation appears to be an exception to his usual premise of
6 consistency. And he offers no explanation for this outlier recommendation, other than to
7 say in response to discovery that use of the 3-year average should be considered on a
8 case-by-case basis. PWD submits that absent record support, this recommendation should
9 fail.
10

11 **Q15. WHY ARE YOU PROPOSING TO USE THE MOST RECENT THREE-YEAR**
12 **AVERAGE TO PROJECT WHOLESALE SEWER REVENUES INSTEAD OF**
13 **MR MORGAN'S RECOMMENDATION TO SIMPLY USE THE FY2024 LEVEL**
14 **OF USAGE?**

15 A15. We believe the use of a three-year average to estimate wholesale wastewater billed
16 volumes is appropriate in this case to minimize the error associated with selecting any
17 one individual year of data. This is especially important given the variability of
18 precipitation year to year - and the fact that precipitation can enter the sewer system as a
19 component of inflow and infiltration (I&I) impacting total sewer volumes. A review of
20 precipitation data (as measured at the Philadelphia International Airport) shows that the
21 total precipitation was higher in FY 2024 than both FY 2022 and FY 2023 and also
22 11.3% higher than the long-term average annual precipitation total (FY 2001-FY 2024)⁶.
23 Therefore, we believe averaging the most recent three-years is an appropriate estimate
24
25

⁶ Please refer to Schedule 1R-1 for additional information.

1 and avoids using a single value that is influenced by higher-than-average precipitation in
2 FY 2024.

3
4 **Q16. THE PUBLIC ADVOCATE RECOMMENDS CHANGES TO THE PROJECTION**
5 **FOR “OTHER WATER AND SEWER REVENUES.” (PA ST. 1 AT 10-11).**
6 **PLEASE RESPOND.**

7 A16. Mr. Morgan’s testimony states that, *“For the Other Water revenues, PWD used the growth*
8 *rates base[d] on the three year average of both Other Water and Other Sewer Revenues.*
9 *However, for the Other Sewer Revenues, PWD used only the Sewer growth rates. I believe*
10 *the methodology used to project these revenues should be consistent.”*

11
12 Based upon a review of the response to PWD-PA-SET II Question 1- Response
13 Attachment 3, the “growth factor” Mr. Morgan is referring to is not a growth factor but
14 rather a ratio applied to billings to estimate revenues from penalties. Mr. Morgan
15 misidentifies these factors and how they are utilized in the other revenue projections. As
16 stated in PWD St. 7, Schedule BV-2 Section 1.4.1, Table 1-5, penalties are estimated as
17 percentage “of billings under existing rates based upon the average of actual penalties as
18 a percentage (or ratio) of billings for FY 2022 and FY 2024.” In the financial plan
19 projections, the ratios applied to Water and Sewer are based upon the allocation of
20 penalties and are 1.39% and 1.38%, respectively. While the overall ratio of penalties to
21 billings amounts to 1.39%, there is slight difference in the ratios applied to each system
22 related to the allocation of miscellaneous revenues.

23
24 Mr. Morgan recommends applying a “1.39% growth rate” to both the water and sewer
25 revenues under existing rates to estimate penalties. As previously stated, these are not

1 growth factors but rather a percentage applied to billings to estimate penalty revenues.
2 While we disagree with description of Mr. Morgan’s adjustment in his direct testimony,
3 as it is in error, as well as his suggestion that his recommendation needs to be applied as a
4 “matter of consistency,” we do agree with Mr. Morgan’s statement that the “adjustment is
5 relatively minor” as noted on PA St. 1 at 10, Line 25. PWD withholds its objection to this
6 adjustment given its de minimis impact. Please note, however, that we believe it is
7 erroneous⁷.
8

9 **Q17. THE PUBLIC ADVOCATE RECOMMENDS CHANGES TO THE PROJECTION**
10 **FOR “MISCELLANEOUS REVENUE; OTHER; STATE & FEDERAL**
11 **GRANTS,” “PERMITS ISSUED BY L&I” AND “MISCELLANEOUS**
12 **(EMPLOYEE BENEFIT + PROCUREMENT).” (PA ST. 1 AT 11). PLEASE**
13 **RESPOND.**

14 A17. We disagree with Mr. Morgan’s recommendation and proposed revision.
15

16 In PA St. 1 at 13 Lines 6 to 9, Mr. Morgan states *“The next adjustment I made involves*
17 *Miscellaneous Revenue; Other; State & Federal Grants; Permits Issued by L&I (L&I);*
18 *and Miscellaneous (Employee Benefit + Procurement). For these accounts PWD*
19 *projected the revenues based on the 2023/2024 (one-year) growth. I disagree with this*
20 *approach and have used a three-year average instead.* “
21

22 First, Mr. Morgan’s description of the basis for PWD’s other operating revenue
23 projections are incorrect. Mr. Morgan describes the projections as based upon one-year
24 growth. This is incorrect, the basis for these revenues is detailed in PWD St. 7, Schedule
25

⁷ Note - Based upon our review of Mr. Morgan's workpapers we not completely align/confirm his adjustment.

1 BV-2 Section 1.4.1. The Water Department’s projections for Miscellaneous Revenue;
2 Other; State & Federal Grants; Permits Issued by L&I (L&I); and Miscellaneous
3 (Employee Benefit + Procurement) were based upon 2-year average actuals for [FY
4 2023] and FY 2024.

5
6 This was further explained in response PA-XI-4 noting “*The 2-year average reflects*
7 *current policies, practices and performance as it relates to miscellaneous revenues*
8 *overall. The same assumption was used in the prior rate proceeding.*”

9
10 Second, while Mr. Morgan states that he has used the three-year average instead of the
11 “one-year growth.” Based upon review of PWD-PA-SET II Question 1- Response
12 Attachment 3, Mr. Morgan is actually utilizing the 4-year average of the actual revenues
13 from FY 2024- FY 2021 associated with Miscellaneous Revenue; Other; State & Federal
14 Grants; Permits Issued by L&I (L&I); and Miscellaneous (Employee Benefit +
15 Procurement). Again this is not a growth rate but an average of actuals. The column
16 heading for the values referenced by Mr. Morgan indicates FY 2024 – FY 2021. In
17 addition, the actual calculation and source data a visible by tracing the formulas in the
18 active excel model.

19
20 Similar to the adjustment for other sewer revenues (i.e. penalties), it is important to note
21 that while Mr. Morgan has described his adjustments in his direct testimony, and his
22 workpaper / supporting calculations are present in PWD-PA-SET II Question 1-
23 Response Attachment 3, he has not fully carried forward these adjustments into his
24 version of the Rate Board’s Simple Model provided in PWD-PA-SET II Question 1-
25 Response Attachment 2 and the updated version of the “PA Modified Board Simple

Model Revised” issued following discovery to Mr. Morgan’s 5/13/2025 Errata. Based upon a review of the tab entitled “C-3 Receipts Existing Rates” in the aforementioned attachment, Mr. Morgan appears to have only made an edit to Line 8a – Other under the Other Income portion of this table. This line feeds into Line 11a Other Operating Revenue as presented in Schedule LKM-1.

As stated previously, Mr. Morgan’s adjustments to Other Operating Revenue as presented on Line 11a of Schedule LKM-1 include adjustments proposed by Mr. Colton in PA. St. 3. The adjustments proposed by Mr. Colton, and included by Mr. Morgan in his Other Operating Revenues, amount to approximately \$9.45 Million per year in FY 2026 and FY 2027. Mr. Colton’s proposed adjustments are discussed in greater detail in Section IX of this rebuttal testimony.

In order to understand the impact of the adjustments to other revenues proposed by Mr. Morgan, we present the table below which isolates Mr. Colton’s adjustments from other revenue adjustments shown in Schedule LKM-1.

Breakdown of Public Advocate - Other Revenues Adjustments (Dollars in Thousands)			
	Overall Increase in Other Revenue Projections	Colton Adjustments as Included in Schedule LKM-1 Line 10a	Remaining Morgan Adjustments
FY 2026	\$10,047	\$9,449	\$598
FY 2027	\$10,317	\$9,449	\$868

1 The overall increase in Other Revenue Projections is taken from the comparison of PWD
2 projections to those presented in Schedule LKM-1, as presented earlier in this testimony.

3 The above table nets Mr. Colton's proposed adjustment from the Public Advocate's
4 overall recommended adjustments to Other Revenue adjustments. The remaining portion
5 are associated with the adjustments Mr. Morgan made to Other Revenue as included in
6 LKM-1 Line 11a.

7
8 If the Public Advocate indicates via discovery responses that the above statement is not
9 true or Mr. Morgan issues additional errata related on this subject, we reserve the right to
10 amend this rebuttal testimony.

11
12 **V. CAPITAL IMPROVEMENT PROGRAM**

13
14 **Q18. DID THE PUBLIC ADVOCATE PROPOSE ANY ADJUSTMENTS TO THE**
15 **DEPARTMENT'S PROJECTED CAPITAL IMPROVEMENT PROGRAM,**
16 **WHICH IS SUMMARIZED IN SCHEDULE BV-1, TABLE C-7?**

17 A18. No.

18
19 **VI. EXPENSE ADJUSTMENTS**

20
21 **Q19. DID THE PUBLIC ADVOCATE PROPOSE ANY ADJUSTMENTS TO THE**
22 **DEPARTMENT'S PROJECTED OPERATION AND MAINTENANCE**
23 **EXPENSES, WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6?**

24 A19. Yes. Based upon a review of the documents provided in response to PWD-PA-SET-II
25 Question #1 Response Attachments 2 and the updated version of the "PA Modified Board

1 Simple Model Revised” issued following discovery to Mr. Morgan’s 5/13/2025 Errata,
2 the Advocate has made an adjustment to Personal Services as presented in Line 1a of
3 Table C-6. Mr. Morgan, in his testimony, also made an adjustment to SMIP/GARP
4 related expenses as well as the escalation factors utilized in the projection calculations
5 associated within individual cost categories; those adjustments will be addressed in a later
6 section of this rebuttal testimony.

7
8 Mr. Morgan did not identify nor did he describe his proposed adjustment to Class 100
9 Personal Services in his original direct testimony. Mr. Morgan first acknowledges this
10 adjustment in PWD-PA-IV-33⁸. He states that in response to PWD’s information request
11 that “*During the preparation of this discovery response, Mr. Morgan became aware that*
12 *the full reduction of the one-time bonus was not removed from the cost of service.*” Mr.
13 Morgan issued his errata on 5/13/2025, which increased the overall amount of his Class
14 100 adjustment in FY 2026 and FY 2027.

15
16 For the Rate Board’s benefit, we summarize Mr. Morgan’s adjustment below.
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⁸ Mr. Morgan claims that based upon the response to PA-SET-IX 17 that one-time bonuses were not removed from cost of services. His claim is incorrect and based upon a misinterpretation of the Department’s discovery response.

**Public Advocate Adjustments — Adjustments
Operating Expenses
(Dollars in Thousands)**

Adjustment	FY 2025	FY 2026	FY 2027
Schedule LMK-1, Line 16a⁹ “Ongoing removal of one-time bonuses”	(\$ 2,647)	(\$ 3,360)	(\$ 3,477)

Based upon further review of the calculations utilized by Mr. Morgan and provided in PWD-PA-SET-V Question #1 Response Attachment entitled PA Modified Simple Model Revised, he has made an adjustment for one-time bonuses issued to Water Department employees in FY 2025.

As described in PWD Statement 7: Schedule BV-2 Section 1.4.3 – Table 1-8, one-time bonuses were included in the Financial Plan Projections in FY 2025 only. This was stated again in the Water Department’s response to discovery question PA-IX-17. As stated in PA-IX-17 (Part F), *“As noted in the response to item (A) above, response attachment [PA-IX-17] provides the supporting workpapers for the two components of the FY 2025 labor agreement adjustment. Component (2) associated with the FY 2025 one-time bonuses adjusts the salary expenses in FY 2025 only which eliminates the need to remove it from FY 2026 and FY 2027.”* PWD further explained in response to PA-IX-17 Part E, *“As noted in the response to item (A) above, response attachment [PA-IX-17] provides the supporting workpapers for how the FY 2025 one-time bonus was included in the*

⁹ Per Schedule LKM-1 5/13/25 Errata and documents provided in response to PWD-PA-VI-1. Line 16a of Mr. Morgan’s revised schedule reflects his proposed adjustment for one-time bonuses. Also refer to PA Modified Simple Model Revised, Table C-6 O&M Line 1a.

1 *current COS Study for test years 2026 and 2027 which includes a projection of FY 2025*
2 *for the purposes of projecting FY 2025 financial performance and FY 2026 beginning*
3 *fund balances*“ The point of the foregoing is that PWD has addressed this issue
4 repeatedly in the record.

5
6 O&M Adjustment 7 Input¹⁰ includes both the one time bonuses, applicable in FY 2025
7 only, as well as the increase in labor costs related to the 2025 labor agreement, which was
8 not included in the original FY 2025 budget. This adjustment was made to reflect the
9 influence of the labor agreement on personal expenses.

10
11 Again, to be clear, one-time bonuses in FY 2025 are not carried forward into FY 2026,
12 FY 2027 or beyond. They are included in FY 2025 expense projections only. These were
13 incorporated into the Financial Plan model under O&M Adjustment 7 in the O&M
14 Adjustments Tab of the active model¹¹. Review of the PA-IX-17 Response Attachment
15 shows the calculation supporting the O&M Adjustment 7 input¹². By reviewing the active
16 financial plan model and/or the workpapers (refer to the models provided in response to
17 PA-SET-I-2 or PWD Exhibit 6), the O&M Adjustment 7 input shows the incorporation of
18 the adjustments related to the labor agreement.

19
20 A summary from the Direct O&M Adjustments for O&M Adjustment 7 (showing the
21 removal of one-time bonuses in FY 2026 and FY 2027 are provided below.

22
23
24 ¹⁰ Note – As described in PWD Statement 7: Schedule BV-2 - Section 1.4.3, O&M adjustments reflect the
application of actual to budget factors as well as escalation factors, where applicable, based upon the respective
divisions and associated cost codes.

25 ¹¹ See also PWD Exhibit 6 Pages 305 to 307.

¹² Attachments provided in response to PWD-PA-SET-IV-1 confirm Mr. Morgan referenced the same workpapers,
which supported the development of the Water Department’s adjustment as noted here.

	FY 2025	FY 2026	FY 2027
PWD O&M Adjustment 7 – FY 2025			
Labor Agreement Adjustments	\$5,532,514	\$2,826,410	\$2,925,471

Source: PWD Exhibit 6 – Page 307.

The reduction in additional expenses in FY 2026 and FY 2027 illustrates the removal of the one-time bonuses from the adjustment input. O&M adjustments are added to the O&M projections after the baseline O&M expenses are projected by applying the actual to budget factors to the FY 2025 budget and applying the requisite escalation factors. O&M Adjustments are applied to individual Fiscal Years and are not carried forward in anyway. If there is no O&M adjustment in a given year, there is no impact to projected expenses.

As stated previously, one-time bonuses were only included in the Water Departments FY 2025 expense projections in the financial plan projections and not carried forward. In other words, they have already been removed from the projected FY 2026 and onward. Further, they are not included in cost of service nor the revenue requirements associated with the proposed rates.

Mr. Morgan's adjustment is erroneous and should be rejected.

VII. EXPENSE ESCALATIONS

Q20. DID THE PUBLIC ADVOCATE PROPOSE ANY ADJUSTMENTS TO THE ESCALATION FACTORS USED IN THE DEPARTMENT’S PROJECTED OPERATION AND MAINTENANCE EXPENSES, WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6?

A20. Yes. Mr. Morgan made five recommendations on expense escalations to reduce projected operations and maintenance expenses. (PA St. 1 at 11-14). The Advocate made a sixth recommendation related to the Department’s two stormwater management programs, which we will address in the next section of this rebuttal testimony.

Mr. Morgan did not provide a detailed breakdown of his adjustments by the applicable operating expense. We created the breakdown of his adjustment in the table below by adjusting the active Financial Plan Model that was provided to Mr. Morgan in response to PA-I-2 based upon his written narrative description and suggested escalation factors as presented in his direct testimony. If any of the figures below are presented in error, we request that Mr. Morgan correct them on the record.

The Advocate’s five recommendations related to the escalation factors are summarized in the table below:

Public Advocate Adjustments — Escalation Factors Operating Expenses (Dollars in Thousands)		
Adjustment	FY 2026	FY 2027
Schedule LMK-1, Line 16a Class 200 – Other: Utilize the PCE inflation projections from CBO (2.1% in FY 2026, 2.0% in FY 2027) for Services	(\$ 2,305)	(\$ 4,921)
Schedule LMK-1, Line 16a Class 300 - Utilize the PCE inflation projections from CBO (2.1% in FY 2026, 2.0% in FY 2027) for Materials and Supplies	(\$ 436)	(\$ 931)
Schedule LMK-1, Line 16a Class 800 – Transfers: Eliminate inflation projections Transfers	(\$ 270)	(\$ 550)
Schedule LMK-1, Line 16a Energy: Use escalation factor of 2.7% for both FY 2026 and FY 2027	(\$ 765)	(\$ 786)
Schedule LMK-1, Line 16a Gas: Use escalation factor of 1.7% for both FY 2026 and FY 2027	(\$ 0)	(\$ 219)

Note – there are additional adjustments to liquidated encumbrances as a result of changes to class 200 and class 300 expense projections. The basis of liquidated encumbrance

projections has not been contested on the record, and should be applied, as appropriate to the Rate Board's decision with respect to this class of expenses.

Q21. DO YOU AGREE WITH THE RECOMMENDED CHANGE TO OPERATING EXPENSES, CLASS 200 (SERVICES) — WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6, LINE 7 — FOR THE RATE PERIOD?

A21. No. We disagree with the escalation factor recommended by the Public Advocate for Class 200. The differences in the proposed escalation factors can be summarized as follows:

Comparison of Proposed Escalation Factors Class 200 (Services)		
	PWD	Public Advocate
	Schedule BV-1, Table C-6, Line 7	Schedule LKM
FY 2026	3.38%	2.1%
FY 2027	3.38%	2.0%

For Class 200 (Services), the escalation factors used for FY 2026 and FY 2027 were based upon the then-most recent annual inflation rate (October 2023 to October 2024) Consumer Price Index (CPI) for the Philadelphia Area¹³. PWD St. 7 Schedule BV-2 at 1-17. This inflation index was about 3.1%, as of February 2025¹⁴ and has remained above of 3% for the past 5-years. The CPI represents the spending habits of people living in

¹³ Note – Mr. Morgan claims in his testimony, PA Statement 1 at 13 Line 1, that “The source of the Department’s CPI factors was not disclosed.” This is incorrect. The source was provided in Appendix F of Schedule BV-2. The Public Advocate was also directed to the previously provided data sources in Response to PA-XI-3. As noted in Appendix F – the escalation factor is based upon the 12-month change in CPI data for the Philadelphia Area from the Bureau of Labor Statics data; the associated source Index and Series Id(s) are also noted in the appendix.

¹⁴ https://www.bls.gov/regions/mid-atlantic/news-release/consumerpriceindex_philadelphia.htm

1 urban areas, or about 90% of the US population. The CPI also provides area-specific
2 inflation rates. The latest CPI data shows that the Philadelphia-Camden-Wilmington, PA-
3 NJ-DE-MD Metro Area, inflation is higher at 3.1% compared to the US Overall inflation
4 rate of 2.8%.¹⁵

5
6 Mr. Morgan is recommending the use of the Congressional Budget Office (CBO) forecast
7 for Personal Consumption Expenditures (“PCE”)¹⁶ for Calendar Years 2026 and 2027 for
8 the projection of FY 2026 and FY 2027 expenses¹⁷ (for both Class 200 and 300).

9
10 During the 2023 Rate Proceeding, Mr. Morgan recommended the use of Federal Open
11 Market Committee (“FOMC”) Core Personal Consumption Expenditures (“PCE”). From
12 our review of CBO PCE information and as well as the Federal Reserve’s version of
13 PCE, we would note they provide similar figures and appear to have a similar basis. The
14 primary differences appear to be in the timing of inflation, with both eventually reaching
15 the Federal Reserve’s targeted inflation rate in the future. Mr. Morgan has not explained
16 why CBO is a better source when compared to the Federal Reserve figures. He states
17 CBO “*is a non-partisan and reputable source for economic data.*”¹⁸

18
19 It is our understanding that “*The building blocks of the PCE and CPI inflation*
20 *calculations are largely the same. Each index attempts to quantify changes in consumer*
21 *prices by tracking changes in the prices of a specific basket of goods and services each*
22 *month.*”¹⁹ But, there “are also differences in the scope of each index. The PCE report

23
24 ¹⁵ <https://usafacts.org/answers/what-is-the-current-inflation-rate/metro-area/philadelphia-pa/>

25 ¹⁶ See PA Statement 1, Page 12 at 10 to 13.

¹⁷ For both Class 200 Services and Class 300 Materials.

¹⁸ PA. St. 1 at 13 Lines 2 to 3.

¹⁹ <https://www.morningstar.com/markets/whats-difference-between-cpi-pce>

1 includes purchases made by urban and rural consumers, while the CPI report only tracks
2 spending in urban areas.”²⁰

3
4 For Class 200 (Services), the localized CPI (as used by B&V) is a better indicator than
5 the national PCE (as recommended by Mr. Morgan). In the Department’s operating
6 budget, “Class 200” refers to the purchase of “Services,” which encompasses expenses
7 related to consulting services, outside contractors, and other services not provided by the
8 Department's internal staff.

9
10 Class 200 expenses “includes operational costs associated with contracted services
11 including maintenance activities.” PWD St. 7 at 24. It also includes services provided
12 outside of City government, like planners, engineers, legal counsel, advertising,
13 information technology, training, communications, and consulting.²¹ As noted in PWD.
14 St. 4A at 8, Lines 7 to 8, “*An added pressure creating a greater need for contract*
15 *services is the difficulty in hiring new employees.*” Much of the outside support services
16 comes from local and regional vendors, service providers as well as engineering and
17 consulting firms. Cost for the services of these companies will be more reflective of more
18 localized inflation as opposed to that seen at the national level. Also note many contracts
19 that PWD has entered into include allowances for cost / pricing escalation with respect to
20 hourly rates, as well as supplies and materials.

21
22 PWD Statement 4 – Direct Testimony of the Operations Panel notes that several of the
23 Water Department’s services contracts include contractual price adjustments, which are
24 tied to directly to CPI or similar indices. These clauses will contribute to increases in

25
²⁰ <https://www.morningstar.com/markets/whats-difference-between-cpi-pce>

²¹ <https://philly-stat-360.phila.gov/pages/budget>

non-discretionary operating costs in FY 2026 and FY 2027. An example of this type of contract is the Biosolids Recycling Center Operation Service Agreement with Philadelphia Biosolids Services (PBS), a joint venture led by Synagro. The Ameresco Maintenance Agreement for our cogeneration facility is another example of a contract with an inflation adjustment clause. The above contracts constitute 14% of Class 200 (Contract Services) expenses. There are additional contracts with similar clauses.

Q22. DO YOU AGREE WITH THE RECOMMENDED CHANGE TO OPERATING EXPENSES, CLASS 300 (MATERIALS AND SUPPLIES) — WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6, LINE 10 — FOR THE RATE PERIOD?

A22. No. We disagree with the escalation factor recommended by the Public Advocate for Class 300.

The differences in the proposed escalation factors can be summarized as follows:

Comparison of Proposed Escalation Factors Class 300 (Materials and Supplies)		
	PWD	Public Advocate
	Schedule BV-1, Table C-6, Line 10	Schedule LKM
FY 2026	3.38%	2.1%
FY 2027	3.38%	2.0%

1 PWD’s proposed escalation factors are based upon the most recent 12-month period CPI
2 for the Philadelphia Area (“CPI-PA”) as of October 2024. Mr. Morgan again
3 recommends the use of PCE inflation projections from the CBO.
4

5 For Class 300 (Materials and Supplies), the Department’s escalation factors used for FY
6 2026 and FY 2027 were based upon the local CPI for the Philadelphia Area. PWD St. 7
7 at 1-17. However, the CBO uses assumptions on national unemployment, wages, and
8 salaries for their projections, that may differ from those locally observed²².
9

10 For Class 300 (Materials and Supplies), the localized CPI (as used by B&V) is a better
11 indicator than the national PCE (as recommended by Mr. Morgan). In the Department’s
12 operating budget, “Class 300” refers to the purchase of “Materials and Supplies,” which
13 encompasses expenses related to materials for PWD’s overall operations. The largest cost
14 center for materials within the Water Department is associated with the Operations
15 Unit,²³ where the majority of material costs are related to ongoing and maintenance and
16 repair for field operations. This includes items such as valves, sleeves, ductile iron pipe,
17 dressers, couplers, bands, and curb stops. This class of expenditures also encompasses
18 materials and supplies generally for the Department. Please note that Mr. Morgan’s
19 recommended escalation factors inappropriately utilize national indices of inflation that
20 do not accurately capture inflation experienced in the Philadelphia area.
21
22
23
24

25 ²² In previous proceedings, Mr. Morgan has proposed the use of Core PCE, as calculated by the Federal Reserve, which similarly utilizes national figures as opposed to more local data.

²³ See PWD St. 4A.

Q23. DO YOU AGREE WITH THE RECOMMENDED CHANGE TO OPERATING EXPENSES, CLASS 800 (INDEMNITIES AND TRANSFERS) — WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6, LINE 13 — FOR THE RATE PERIOD?

A23. No.

We disagree with the escalation factor recommended by the Public Advocate for Class 800. The differences in the proposed escalation factors can be summarized as follows:

Comparison of Proposed Escalation Factors Class 800 (Indemnities and Transfers)		
	PWD	Public Advocate
	Schedule BV-1, Table C-6, Line 13	Schedule LKM
FY 2026	3.38%	0.00%
FY 2027	3.38%	0.00%

For Class 800 (Indemnities and Transfers), the Department’s escalation factors used for FY 2026 and FY 2027 were based upon the CPI for the Philadelphia Area. PWD St. 7 at 1-17.

For Class 800 (Indemnities and Transfers), the localized CPI (as used by B&V) is a better indicator than no adjustment (as recommended by Mr. Morgan). In the Department’s operating budget “Class 800” generally refers to transfers of funds from the City's General Fund to other City funds, such as the Water Fund, and vice-versa.

1 Escalation using the CPI for the Philadelphia Area is reasonable for Class 800 because
2 Class 800 is primary used by the Department to “*account for various services provided*
3 *by other City Departments not included directly in the Water Fund budget.*” PWD St. 7
4 at 26.

5
6 Mr. Morgan’s position disregarding the escalation factor entirely for Class 800 expenses
7 is unreasonable. The PA witness explains that his position is based on his belief that
8 transfers “*are not always for goods and services*” that are “*directly linked to inflation.*”
9 PA St. 1 at 13. This is a false premise.

10
11 To clarify, in this context, PWD’s Class 800 Transfers costs are related to
12 interdepartmental expenses not directly funded by the Water Fund. As presented in Table
13 2-2 on Page 2-4 of PWD Statement 7: Schedule BV-2, Class 800 O&M Expenses are
14 “*O&M payment to the General Fund associated with the direct interdepartmental*
15 *services provided to the Water Department by other City Departments.*” Costs included
16 in Class 800 Transfers are fairly consistent year to year.

17
18 In FY 2024, the PWD’s total O&M Class 800 transfer expense was approximately \$11.79
19 million. The table below provides a breakdown of the FY 2024 Class 800 transfers
20 actuals and breaks down the interdepartmental expenses by their respective class codes²⁴.

21
22
23
24
25

²⁴ Source: PWD Finance

Description	Expense	Percent of Total
Class 100	\$8,944,376	75.9%
Class 200	\$1,339,639	11.4%
Class 300	\$977,488	8.3%
Class 400	\$528,334	4.5%
Total Class 800	\$11,789,837	

It's clear from the above table that the primary component of Class 800 expenses in FY 2024, were actually related to personnel expenses (i.e., salary and wage costs). The remainder of costs are made up of Class 200 – Services, Class 300 – Materials and Class 400 – Equipment. The Water Department proposed escalation factors to project Class 100 and 400 related expenses for FY 2026 and FY 2027. Mr. Morgan made no recommendations concerning Class 100 and 400 escalation factors. And while different from the Water Department's proposed escalation factors, Mr. Morgan nonetheless proposes escalation factors for Class 200 and 300. In other words, Mr. Morgan recognizes that an increase in costs is reasonable. As illustrated above, for each of these classes making up Class 800, Mr. Morgan recognized an escalation factor. Perforce, an escalation factor is also reasonably applied here for Class 800 expenses.

Schedule 1R-2 presents an aggregate escalation factor for Class 800 Expenses for FY 2026 and FY 2027 for comparison purposes. The "Aggregate Escalation Factors" are the weighted average of the escalation factors reflecting the distribution of the class level expenses that comprise the transfers. The results are summarized in the table below.

	FY 2026	FY 2027	Average
PWD Aggregate Escalation Factors	4.55%	3.41%	3.98%
PWD Recommended Escalation Factor	3.38%	3.38%	3.38%
Morgan Aggregate Escalation Factor	4.30%	3.14%	3.72%
Morgan Recommended Escalation Factor	0.00%	0.00%	0.00%

Based upon the above, PWD's recommended escalation factor of 3.38% is less than the Aggregate Escalation Factors in both years. Whereas the Aggregate Escalation Factor based upon Mr. Morgan's proposals for each respective class, shows that his recommendation to apply no escalation factor is unsupported.

With the foregoing in mind, the Water Department's recommended escalation factors of 3.38% for FY 2026 and FY 2027 are reasonable and should be approved by the Rate Board.

Q24. DO YOU AGREE WITH THE RECOMMENDED CHANGE TO OPERATING EXPENSES, GAS — WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6, LINE 5 — FOR THE RATE PERIOD?

A24. No.

We disagree with the escalation factor recommended by Mr. Morgan for natural gas. The differences in the proposed escalation factors can be summarized as follows:

Comparison of Proposed Escalation Factors Gas Expense		
	PWD	Public Advocate
	Schedule BV-1, Table C-6, Line 5	Schedule LKM
FY 2026	1.7%	1.7%
FY 2027	4.7%	1.7%

The Water Department recommends the use of the City’s Office of Sustainability, Division of Energy & Climate Solutions, escalation factors for gas expenses. Mr. Morgan recommends the lower of the two escalation factors for both FY 2026 and FY 2027.

The recommendation to use the lower escalation factor for both years is based on the Public Advocate’s view of the reasonableness of the Office of Sustainability’s prior projections of costs. (PA St. 1 at 13). Mr. Morgan states that the Office “*has not been a good predictor of gas and energy expenses for ratemaking purposes.*” (PA St. 1 at 13). To support that conclusion, he references the 2023 General Rate Proceeding. (PA St. 1 at 13). Mr. Morgan cites the “*During the FY 2023 and FY 2024 rate case, these costs were forecast to increase 1.5% annually during FY 2026 and FY 2027. But the Office of Sustainability is now forecasting that these will not increase.*”

The above statement is misplaced, however, for several reasons. First, FY 2026 and FY 2027 were not the subject of the 2023 Rate Proceeding. Second, escalation factors were not applied in the 2023 Rate Proceeding for FY 2024 and FY 2025, as the Water Department relied upon planned increases. Third, the Office Sustainability Memo was not relied upon by the Water Department in that proceeding.

1
2 In the 2023 General Rate Proceeding, Black & Veatch’s direct testimony states: “Black &
3 Veatch utilized planned budgetary increases in power and gas costs as provided by the
4 Water Department to estimate expenses in FY 2024. ... In conjunction with the budgetary
5 adjustment, the following escalation factors are assumed: Power: 0.0% in FY 2024 and
6 FY 2025, 1.5% thereafter. Gas: 0.0% in FY 2024 and FY 2025, 1.5% thereafter.”²⁵ 2023
7 PWD St. 7 at 22-23.

8
9 Mr. Morgan wrongly attributes the assumed escalation factors to the City’s Office of
10 Sustainability, even though that Office is not mentioned. Mr. Morgan then challenges
11 those assumptions as inaccurate. (PA St. 1 at 13).

12
13 Mr. Morgan states that in the 2023 General Rate Proceeding, Table 1-7 (Annual
14 Escalation Factors) showed projections of costs increasing by 1.5% for both FY 2026 and
15 FY 2027. He expresses displeasure that those projections (made in January 2023) for
16 FY 2026 and FY 2027 are no longer “accurate” (PA St. 1 at 13), and that the Office is
17 projecting costs increasing above levels in both FY 2026 and FY 2027. In doing so, he
18 expresses his expectation that then long-term projections (from January 2023) to the now
19 shorter-term projections (from February 2025) must be the same. That expectation is
20 unreasonable because it does not allow for any changes in market conditions.

21
22 Please note that Mr. Morgan accepts the Office’s projection for gas for FY 2026. That
23 suggests that he means agrees with the Office that the projected increase in gas should be
24 1.7%, as opposed to the now outdated projection of 1.5% (from January 2023). Also note

25

²⁵ <https://www.phila.gov/media/20250311151823/PWD-Statement-7-Direct-Testimony-and-Schedules-of-Black-and-Veatch-2023.pdf>

1 that this acceptance of the Office's projections runs counter to his argument questioning
2 the reasonableness of the Office's projections. The Office's projections must be
3 reasonable if Mr. Morgan is relying upon them. In addition, it should be pointed out that
4 Mr. Morgan fails to explicitly acknowledge that the prior and current gas projections for
5 FY 2026 are nearly the same. The then long-term projection (from January 2023) was for
6 an increase of 1.5% in gas for FY 2026. The now shorter-term projection (from February
7 2025) is for an increase of 1.7% for gas in FY 2027.

8
9 Mr. Morgan rejects the Office's projection for gas for FY 2027. Mr. Morgan does not
10 believe that Office's projected increase in gas should be 4.7% in FY 2027. Mr. Morgan
11 believes that the projection for FY 2027 should be 1.7%. But his testimony offers no
12 explanation for that belief. He does not point to a different index. Nor does he say that he
13 reviewed the data and projections which underlay the Office's projections.

14
15 The Office's projections were made in January 2025. Counter to Mr. Morgan's argument
16 for a lower escalation factor in FY 2027, the escalation factors were developed prior to
17 Philadelphia Gas Works (PGW) recent rate filing²⁶. In other words, the Office's
18 escalation factor likely understates the potential for increasing costs in FY 2027 as it does
19 not capture potential increases associated with PGW's rate request.

20
21 Mr. Morgan contentions as to the reasonableness of the Office of Sustainability's prior
22 projections of costs are further weakened by his recommendations on electricity
23 (discussed separately in greater detail below). In short, for electricity, Mr. Morgan
24 accepts the Office's projection for electricity for FY 2027. But Mr. Morgan rejects the
25

²⁶ Refer to PA PUC Docket No. R-2025-3053112.

1 Office's projection for electricity in FY 2026. He does so, even after accepting the
2 Office's projection for gas in FY 2026. Mr. Morgan does not explain why he believes the
3 Office's projections are reasonable regarding gas for FY 2026 and unreasonable for
4 electricity in FY 2026. He does not point to a different index. Nor does he say that he
5 reviewed the data and projections which underlay the Office's projections.

6
7 Mr. Morgan's recommendation is unreasonable. It may be unfair to say that Mr. Morgan
8 simply concluded that the lower projection made by the Office of Sustainability for either
9 FY 2026 or FY 2027 should apply for both years (FY 2026 and FY 2027). But the lack of
10 explanation in his testimony leaves the Board without a record basis to adopt his
11 recommendation.

12
13
14 **Q25. DO YOU AGREE WITH THE RECOMMENDED CHANGE TO OPERATING**
15 **EXPENSES, POWER (ENERGY) — WHICH ARE SUMMARIZED ON**
16 **SCHEDULE BV-1, TABLE C-6, LINE 4 — FOR THE RATE PERIOD?**

17 A25. No.

18
19 We disagree with the escalation factor recommended by the Public Advocate for power
20 (energy). The differences in the proposed escalation factors can be summarized as
21 follows:

Comparison of Proposed Escalation Factors Energy Expense		
	PWD	Public Advocate
	Schedule BV-1, Table C-6, Line 4	Schedule LKM
FY 2026	6.5%	2.7%
FY 2027	2.7%	2.7%

The Water Department recommends the use of the City's Office of Sustainability, Division of Energy & Climate Solutions, escalation factors for electricity expenses. Mr. Morgan recommends the lower of the two escalation factors for both FY 2026 and FY 2027.

We incorporate our prior responses regarding the reasonableness of the Office of Sustainability's prior projections of costs into this response. We also incorporate our comments regarding the use of actual to budget factors in the projection of operating expenses.

Mr. Morgan appears to question the Office of Sustainability's use of hedges. The Office utilizes hedges to provide City operations (including the Water Department) with pricing stability. With respect to the Office's projections and the use of hedges, 80% of the City's 2026 electricity have been purchased with the remaining 20% coming from the open market²⁷. Stated simply, FY 2026 costs are essentially locked in.

²⁷ Per the City's Office of Sustainability.

1 Mr. Morgan's recommendation does nothing to reflect the changes that have occurred in
2 the electric market. Specifically, the costs for capacity, which are part of the power
3 supply portion of bills, are increasing significantly. It was widely reported that, starting in
4 June 2025, consumers across the PJM Interconnection footprint will pay \$14.7 billion for
5 capacity in the 2025-26 delivery year, up from \$2.2 billion in the last auction. (2025/2026
6 Base Residual Auction Report, dated July 30, 2024).²⁸ That is about a six-fold increase.
7 The purpose of this capacity is to secure enough resources to meet reliability
8 requirements and the projected demand for all customers in the PJM region. These higher
9 capacity costs will affect everyone within the PJM region whether your electricity is
10 supplied by the utility or retail supplier. In fact, PECO Energy Company has announced
11 that its price for default service to residential customers is increasing, in June 2025, by
12 13.4%. (PUC Docket No. M-2025-3054593;²⁹ Energy Choice Matters, dated April 16,
13 2025).³⁰ That increase looks like it is primarily due to rising capacity costs from the PJM
14 Interconnection.

15
16 With the foregoing in mind, the Office of Sustainability's projection of a 6.5% in power
17 for FY 2026 is reasonable and should approved by the Rate Board.

18 VIII. SMIP AND GARP PROGRAMS

21 Q26. DID THE PUBLIC ADVOCATE PROPOSE ANY ADJUSTMENTS TO THE 22 DEPARTMENT'S PROJECTED OPERATION AND MAINTENANCE

23
24
25 ²⁸ <https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2025-2026/2025-2026-base-residual-auction-report.pdf>

²⁹ <https://www.puc.pa.gov/docket/M-2025-3054593>

³⁰ <http://www.energychoicematters.com/stories/20250416b.html>

EXPENSES, SIMP/GARP — WHICH ARE SUMMARIZED ON SCHEDULE BV-1, TABLE C-6, LINE 6 — FOR THE RATE PERIOD?

A26. Yes.

The Advocate's recommendation on SIMP/GARP are summarized in the table below:

Participant Proposals for Total Operating Revenues (Dollars in Thousands)			
	PWD	Public Advocate	Difference
	Schedule BV-1, Table C-1A, Line 6	Schedule LKM-1 Line 16a	
FY 2025	\$15,000	\$15,000	(\$0)
FY 2026	\$15,000	\$15,000	(\$0)
FY 2027	\$25,000	\$15,000	(\$10,000)

Q27. DO YOU AGREE WITH THE RECOMMENDATION?

A27. No.

Mr. Morgan's SMIP/GARP adjustment is short-sighted and unreasonable. SMIP/GARP expenditures are a part of the delivery mechanism to help PWD reach its 20-year milestone under the Consent Order and Agreement (COA). (PWD Exhibit 7).

Q28. PLEASE EXPLAIN.

A28. SMIP/GARP is part of the City's approach to compliance with the requirements of COA. (PWD Exhibit 7; see also PWD St. 3, 4A and 4B). The COA requires PWD to address combined sewer overflows (CSO) over a 25-year term ending in 2036. The COA requires

1 interim milestones at the end of the fifth, tenth, fifteenth and twentieth years. The final
2 milestone is at the end of the twenty-fifth year.

3
4 The 15-year milestone (in 2026) occurs during the Rate Period. That milestone requires,
5 among other things, a cumulative total of 3,812 greened acres. (PWD Exhibit 4 at 40;
6 PWD Exhibit 7 at Appendix I). To reach that milestone, the Department needed to add
7 1,664 greened acres between 2021 and 2026. It achieved that milestone.

8
9 It should be remembered that the SMIP/GARP budget was, historically, \$25.0 million per
10 year. The Department reduced the SMIP/GARP budget from \$20.0 million to \$15.0
11 million for FY 2021 in response to the pandemic. (2021 General Rate Proceeding, PWD
12 St. 7A at 22). The Department always planned to reinstate the full budget of \$25.0
13 million. The Department maintained a reduced amount of \$20.0 million in FY 2022,
14 reduced it to \$20.0 million again in FY 2024 and further reduced it to \$15.0 million in
15 FY 2025. Those reductions were intended to help manage the overall level of revenue
16 adjustments during those fiscal years, as well as manage lower than anticipated revenues,
17 while still allowing the Department to continue to make progress toward the 15-year
18 milestone (which ends in FY 2026). For FY 2026, the Department has requested, in this
19 proceeding, to maintain the reduced amount of \$15.0 million for SMIP/GARP. As
20 explained in PWD St. 4B, it is estimated that the current projects will be sufficient to
21 meet the 15-year milestone in a timely manner.

22
23 The 20-year milestone presents a different picture than the 15-year milestone. Looking
24 ahead to the 20th-year milestone (in 2031), the Department will need a cumulative total
25 of 6,424 greened acres. (PWD Exhibit 7 at Appendix I). That means that the Department

1 needs to add an additional 2,612 greened acres before 2031. That’s over 900 acres more
2 than the required acres in the previous milestone period.

3
4 The Department continues to review program cost and delivery to optimize the program
5 while satisfying the necessary regulatory requirements. PWD St. 3, 4A and 4B explain
6 that, in the Rate Period, expenditures can be expected to increase to achieve the milestone
7 targets associated with the COA.

8
9 The Department is reasonably projecting that it will spend \$15 million in FY 2026 and
10 will spend \$25 million in FY 2027 on SMIP/GARP. The spending in FY 2026 is working
11 towards the 15-year milestone and the 20-year milestone. The spending in FY 2027 will
12 be working towards the 20-year milestone.

13
14 Mr. Morgan simply recommends reduction of that projected expenditure in FY 2027 to
15 the level proposed for FY 2026. In doing so, Mr. Morgan simply states that “the timing is
16 not ripe for restoring the additional \$10 million of costs that would be passed on to
17 customers.” (PA St. 1 at 15). Neither Mr. Morgan nor any other witness testifying on
18 behalf of the Public Advocate does anything to explain or demonstrate that compliance
19 with the 20th-year milestone can be achieved if the spending levels for SMIP/GARP are
20 reduced to Mr. Morgan’s recommended level.

21
22 Mr. Morgan suggests that if the Department “is able to outperform its key metrics,
23 funding should be **released** to the SMIP/GARP programs.” (PA St. 1 at 15 (emphasis
24 added)). That suggestion is out of place in this proceeding. There is no authority for the
25 Rate Board to “release” funds to any expense or program. The Rate Board fixes and

1 regulates the Department's rates and charges. We understand that the Rate Board has not
2 been granted authority over the Department's operations.

3
4 As of June 30, 2024, the SMIP/GARP program has contributed 1,009 acres toward COA
5 compliance milestones (approximately 1/3 of the existing greened acres). In response to
6 PA-XI-2, the Water Department described the potential negative consequences of not
7 returning SMIP/GARP to its full budget. Those include the potential risk of missing
8 greened acre milestones. PWD further noted that the *“continued fluctuation in budget*
9 *leads to less certainty in potential grant awards and impacts the potential pipeline of*
10 *projects seeking support via the program.”*

11
12 Further, as presented in PWD St. 2, Schedule FP-1, Page FSP-4, FY 2024 Revenues were
13 \$34.3 million below projections from the 2023 Rate Determination. Based upon the most
14 recent FY 2025 revenue projections, FY 2025 are expected to be \$36.8 million lower than
15 the projections from the 2023 Rate Determination. The prior rate determination assumed
16 that \$20 Million would be directed to SMIP/GARP expenses in FY 2025. In order to
17 combat the shortfall in revenues, the Water Department reduced the FY 2025 budget for
18 SMIP/GARP to \$15 Million from the originally \$20 Million planned expense reflected in
19 the 2023 Rate Determination. This is one of the few interim tools the Water Department
20 can leverage in the event of revenue shortfalls³¹. This is a temporary measure.

21 Additionally, given current fund balances in the Rate Stabilization Fund (RSF), the Water
22 Department cannot simply rely on over-performance to fund SMIP/GARP. Further, in
23 PWD St. 2A, Page 7 Lines 16-18 “No. The Department cannot prudently make additional
24 cuts in expenditures and/or make additional withdrawals from financial reserves to
25

³¹ See also response to PA-XI-2(A).

eliminate the need for rate increases in FY 2026 and FY 2027.”

By holding the projected SMIP/GARP expenses to \$15 Million in FY 2026 and only proposing to restore the full program budget in FY 2027, PWD has already made a reasonable attempt to help manage rate impacts during the Rate Period, as it relates to SMIP/GARP. That said, the delay in budget restoration does not come with further compliance related risks as previously described. Based upon this, the Water Department’s original proposal to maintain a reduced SMIP/GARP budget in FY 2026 (at \$15 Million) and restore the program to its full budget in FY 2027 (\$20 Million) is reasonable. We would respectfully recommend that the Rate Board deny Mr. Morgan’s proposed adjustment and adopt the Water Department’s original proposal.

IX. ADJUSTMENTS FOR MR. COLTON PROPOSALS

Q29. DID PUBLIC ADVOCATE WITNESS ROGER COLTON PROPOSE ANY ADJUSTMENTS TO THE DEPARTMENT’S PROJECTED REVENUES OR PROPOSED EXPENSES?

A29. Yes. Mr. Colton proposes a series of revenue related adjustments in PA Statement 3.

These include proposed adjustments for:

- “Additional collectability of revenues associated with TAP discounts.”
- “Additional collections associated with PWD’s Raise Your Hand Program.”
- “Revenue preserved due to PWD’s Raise Your Hand Program.”

**Q30. DID MR. MORGAN INCORPORATE THE REVENUE CHANGES PROPOSED
BY MR. COLTON?**

A30. Yes. Based upon the documents provided in response to discovery PWD-PA-SET II Question 1³² and his response to PWD-PA-IV-34, Mr. Morgan has included Mr. Colton's proposed adjustments in his overall proposed adjustments to the Water Department's requested annual revenue increases. These adjustments are included in the Schedule LKM-1 Line 11a - Other Operating Revenue.

Mr. Morgan did not provide a detailed breakdown of the revenue adjustments in his direct testimony, as proposed by Mr. Colton, and reflected in Schedule LKM-1 as attached to his direct testimony. He did include a breakdown in response to PWD-PA-IV-34. We present a breakdown of the revenue adjustments below based upon our review of the models Mr. Morgan provided in response to PWD-PA-Set-II Response Attachments 1 to 4 and his aforementioned discovery response.

The adjustments proposed by Mr. Colton, and applied by Mr. Morgan in his Other Operating Revenues³³, amount to \$9.45 Million per year for FY 2026 and FY 2027, are summarized in the table below:

³² See PWD-PA-SET II Question 1 Response Attachments 2 and 3.

³³ See Pa St. 1, Schedule LKM-1, Line 11a - Other Operating Revenue.

Colton Adjustments including in Mr. Morgan's Analysis Operating Expenses (Dollars in Thousands)		
Adjustment	FY 2026	FY 2027
Schedule LMK-1, Line 11a "Upward Revenue adjustment to reflect the additional collectability of revenues associated with TAP discounts"	\$8,373	\$8,373
Schedule LMK-1, Line 11a "Upward Revenue adjustment to reflect additional revenue collection associated with PWD's Raise Your Hand program"	\$ 477	\$ 477
Schedule LMK-1, Line 11a "Upward Revenue adjustment to reflect revenue preserved due to PWD's Raise Your Hand program"	\$ 599	\$ 599
Total	\$9,449	\$9,449

**Q31. DID MR. MORGAN OFFER ANY RATIONALE FOR INCLUDING THE
ADJUSTMENTS PROPOSED BY MR. COLTON IN HIS
RECOMMENDATIONS?**

A31. No, he did not. Mr. Morgan offers no commentary or opinion on Mr. Colton's adjustments. Mr. Morgan has confirmed that he did not independently review Mr. Colton's suggestions³⁴.

³⁴ See response to PWD-PA-IV-34.

1 As Mr. Morgan has included Mr. Colton's adjustments in the basis of his recommended
2 reductions in the Water Department's request for additional revenues, but did not review
3 them, we recommend that the Rate Board consider the merits of Mr. Colton's
4 adjustments separately.

5
6 Based upon the above, the Water Department will address Mr. Colton's proposed
7 adjustment in separate rebuttal testimony in this rate proceeding. We do so to draw a
8 clear distinction in the recommendations and in an effort to have avoid any over-
9 statement of the Public Advocate's overall proposed adjustments. Therefore, we
10 recommend Mr. Morgan's adjustments and Mr. Colton's adjustments be clearly
11 delineated and presented separately.

12
13 **Q32. WHAT WOULD MR. MORGAN'S PROPOSED ADJUSTMENTS TO THE**
14 **DEPARTMENT'S REQUESTED REVENUES BE IF MR. COLTON'S**
15 **ADJUSTMENTS WERE EXCLUDED?**

16 A32. As Mr. Morgan has included Mr. Colton's adjustments in the basis of his recommended
17 reductions in the Water Department's revenue request, we present a comparison of the
18 proposed revenue adjustments and the Public Advocate's based upon the changes
19 proposed by Mr. Morgan and supported by his direct testimony.

Overall Public Advocate and Isolated Morgan Proposals for Additional Revenues (Dollars in Thousands)			
	PWD	Morgan Only	Difference
	Schedule BV-1, Table C-1A, Lines 4-5	Adjusted Schedule LKM-1 Lines 4a and 5a	
Incremental Additional Revenues			
FY 2026	\$73,630	\$62,665	\$10,965
FY 2027	\$58,858	\$47,285	\$11,573
Total Additional Revenues			
	Schedule BV-1, Table C-1A, Line 9	Adjusted Schedule LKM-1 Line 9a	
FY 2026	\$73,630	\$62,665	\$10,965
FY 2027	\$148,795	\$123,865	\$24,930

**Q33. DOES MR. COLTON PROPOSE ANY ADJUSTMENTS TO THE
DEPARTMENT'S PROJECTED EXPENSES?**

A33. Yes. Mr. Colton proposed that the cost of lien filing fees be removed from cost of service. He also requests that the Rate Board direct the Department to replace hardship grants related to UESF.

**Q34. DOES MR. MORGAN INCLUDE ANY ADJUSTMENTS TO THE
DEPARTMENT'S PROJECTED EXPENSES BASED UPON MR. COLTON'S
RECOMMENDATIONS?**

A34. Based upon a review of the workpapers provided in response to PA-II-1, we believe that he has not. Mr. Morgan did not mention the inclusion of Mr. Colton's adjustments in his original direct testimony and merely alluded to recommendations in other testimony.

As there are no specific expense side dollar adjustments included in Mr. Colton's testimony, we assume that Mr. Morgan has not included these expense side adjustments, as there are no proposed values to adjust. Mr. Morgan's discovery responses seem to confirm this. As previously noted, Mr. Morgan fully reflects Mr. Colton adjustments in the Other Revenue Adjustments in LKM-1.

If the Public Advocate provides a schedule of adjustments that includes specific expense side dollar adjustments or errata addressing such adjustments, we reserve the right to amend this rebuttal testimony.

X. CAPITAL IMPROVEMENT PROGRAM FINANCING

Q35. HAS MR. MORGAN MADE ANY ADJUSTMENTS THAT WOULD IMPACT THE DEPARTMENT'S PROJECTED FLOW OF FUNDS AND DEBT SERVICE RESERVE ACCOUNT AS PRESENTED IN SCHEDULE BV-1: TABLE C-8?

A35. No, he has not.

XI. DEBT SERVICE

Q36. HAS MR. MORGAN MADE ANY RECOMMENDATIONS THAT WOULD IMPACT THE DEPARTMENT'S EXISTING AND PROPOSED DEBT SERVICE PROJECTIONS AS PRESENTED IN SCHEDULE BV-1: TABLE C-9?

A36. No, he has not.

XII. INTEREST INCOME

Q37. HAS MR. MORGAN’S RECOMMENDED ANY CHANGES TO THE INTEREST RATES UTILIZED IN ESTIMATING, INTEREST INCOME AS SUMMARIZED IN TABLE C-3, LINES 16-19?

A37. No, he has not.

XIII. STORMWATER

Q38. OTHER THAN HIS PROPOSED ADJUSTMENT TO FY 2027 SMIP/GARP EXPENSES, HAS MR. MORGAN MADE ANY OTHER RECOMMENDATIONS REGARDING STORMWATER?

A38. No. Mr. Morgan has not made any further recommendations regarding stormwater, its associated cost recovery, or the responsibility of costs.

XIV. CONCLUSION

Q39. DOES THIS CONCLUDE THIS REBUTTAL TESTIMONY?

A39. Yes, it does.

**In the Matter of the Philadelphia Water
Department's Proposed Change in Water,
Wastewater and Stormwater Rates and Related
Charges**

Fiscal Years 2026-2027

Philadelphia Water Department

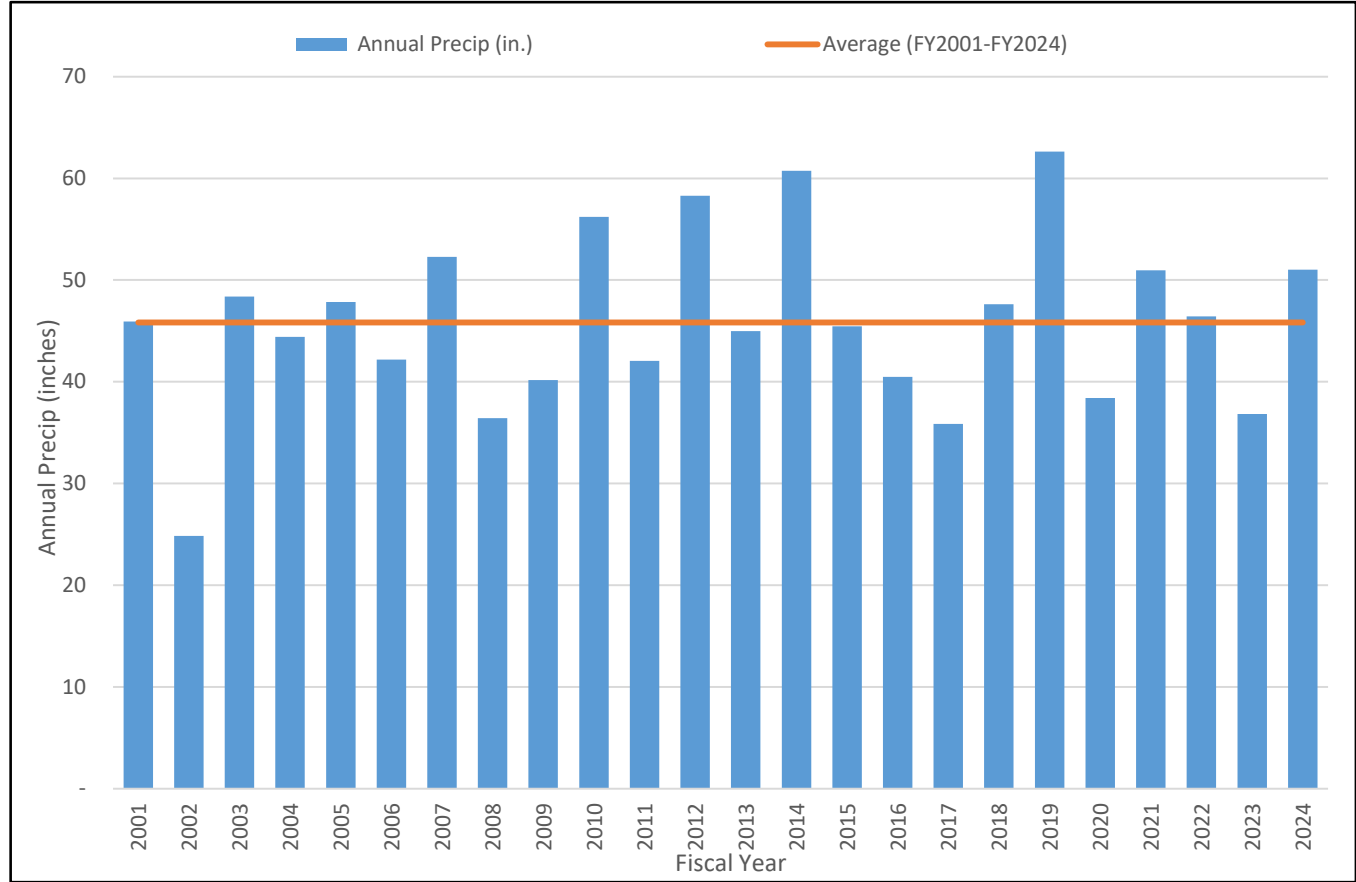
Rebuttal Statement No. 2

Schedules 1R-1 & 1R-2

Dated: May 2025

FY	Annual Precip (in.)	Average (FY2001-FY2024)
2001	45.92	45.85
2002	24.83	45.85
2003	48.37	45.85
2004	44.42	45.85
2005	47.85	45.85
2006	42.18	45.85
2007	52.27	45.85
2008	36.43	45.85
2009	40.16	45.85
2010	56.22	45.85
2011	42.05	45.85
2012	58.30	45.85
2013	44.97	45.85
2014	60.75	45.85
2015	45.46	45.85
2016	40.47	45.85
2017	35.86	45.85
2018	47.63	45.85
2019	62.64	45.85
2020	38.41	45.85
2021	50.95	45.85
2022	46.43	45.85
2023	36.82	45.85
2024	51.02	45.85
		FY2024 as % of long term average 111.3%

Source: <https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USW00013739/detail>



FY 2024	Class 800 Actuals		PWD		PWD		Morgan		Morgan	
			Class Level Escalation Factors		Aggregate Escalation Factors		Class Level Escalation Factors		Aggregate Escalation Factors	
	Expense		FY 2026	FY 2027	FY 2026	FY 2027	FY 2026	FY 2027	FY 2026	FY 2027
Class 100	\$ 8,944,376.00	75.9%	5.00%	3.50%	3.79%	2.66%	5.00%	3.50%	3.79%	2.66%
Class 200	\$ 1,339,639.00	11.4%	3.38%	3.38%	0.38%	0.38%	2.10%	2.00%	0.24%	0.23%
Class 300	\$ 977,488.00	8.3%	3.38%	3.38%	0.28%	0.28%	2.10%	2.00%	0.17%	0.17%
Class 400	\$ 528,334.00	4.5%	2.06%	2.06%	0.09%	0.09%	2.06%	2.06%	0.09%	0.09%
	\$ 11,789,837.00				4.55%	3.41%			4.30%	3.14%
			PWD Recommended Escalation Factors		3.38%	3.38%	Morgan Recommended Escalation Factors		0.00%	0.00%

Sources: FY 2024 Class 800 Transfer - Actuals provided by PWD staff
 PWD Escalation Factors by Class: Refer to PWD Statement 7: Schedule BV-2 - Section 1.4.2
 Morgan Escalation Factors by Class: Refer to PA Statement 1 - Direct Testimony of Lafayette K. Morgan, Jr.

FY 2023			PWD		PWD		Morgan		Morgan	
			Class Level Escalation Factors		Aggregate Escalation Factors		Class Level Escalation Factors		Aggregate Escalation Factors	
	Expense	% of Total	FY 2026	FY 2027	FY 2026	FY 2027	FY 2026	FY 2027	FY 2026	FY 2027
Class 100	\$ 2,436,127.00	53.2%	5.00%	3.50%	2.66%	1.86%	5.00%	3.50%	2.66%	1.86%
Class 200	\$ 809,309.00	17.7%	3.38%	3.38%	0.60%	0.60%	2.10%	2.00%	0.37%	0.35%
Class 300	\$ 887,935.00	19.4%	3.38%	3.38%	0.66%	0.66%	2.10%	2.00%	0.41%	0.39%
Class 400	\$ 443,011.00	9.7%	2.06%	2.06%	0.20%	0.20%	2.06%	2.06%	0.20%	0.20%
	\$ 4,576,382.00				4.11%	3.32%			3.64%	2.80%
			Recommended		3.38%	3.38%			0.00%	0.00%

Sources: FY 2023 Class 800 Transfer - Actuals provided by PWD staff
 PWD Escalation Factors by Class: Refer to PWD Statement 7: Schedule BV-2 - Section 1.4.2
 Morgan Escalation Factors by Class: Refer to PA Statement 1 - Direct Testimony of Lafayette K. Morgan, Jr.

The Aggregate Escalation Factors are the weighted average of the escalation factors reflecting the distribution of the class level expenses comprising transfers.