PHILADELPHIA WATER DEPARTMENT
REBUTTAL STATEMENT NO. 1

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 2019-2021

Rebuttal Testimony

of

Black & Veatch Management Consulting, LLC, and

Erin Williams and David Katz, Philadelphia Water Department

on behalf of

The Philadelphia Water Department

Topics Addressed:

Rate Period and Rate Making Principles

Revenue Projections

Revenue Requirement Projections

Rate Model

Overall Proposal

Dated: May 4, 2018

REBUTTAL TESTIMONY OF BLACK & VEATCH MANAGEMENT CONSULTING, LLC, AND ERIN WILLIAMS AND DAVID KATZ, PHILADELPHIA WATER DEPARTMENT

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAMES AND POSITIONS FOR THE RECORD.

A1. Our names are Brian Merritt, Dave Jagt, Prabha Kumar, and Ann Bui of Black & Veatch Management Consulting LLC (Black & Veatch) and Erin Williams and David Katz of the City of Philadelphia Water Department (Water Department). On behalf of the Water Department, we proffer our collective rebuttal to Mr. Lafayette Morgan's testimony.

Q2. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A2. Yes. Ms. Williams provided testimony in PWD Statement No. 6. Black & Veatch provided testimony in PWD Statements No. 9A and 9B. Mr. Katz is supporting rebuttal testimony with regard to the SMIP/GARP Program. His resume is attached as Schedule R1-1.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A3. In this rebuttal, we provide our response to some of the concerns and criticisms that Mr. Lafayette Morgan has expressed in his direct testimony on behalf of the public advocate. We specifically address the following areas of Mr. Morgan's testimony:

- Rate Period and Rate Making Principles

- Revenue Projections
- Revenue Requirement Projections
- Rate Model
- Overall Recommendations

II. RATE PERIOD AND RATE MAKING PRINCIPLES

Q4. DO YOU AGREE WITH MR. MORGAN'S ASSERTIONS THAT FY 2021 IS "TOO FAR OUT INTO THE FUTURE;" AND "COST OF SERVICE FOR THAT PERIOD IS PURELY SPECULATIVE AND VIOLATES WELL SETTLED PRINCIPLES OF RATE MAKING?"

A4. No. We disagree with Mr. Morgan's assertions. Rate making is inherently prospective. PWD sets rates on a cash basis using fully projected future test years. As such, FY 2021 represents a fully projected test year. This FY 2021 period is not "purely speculative" and projecting revenues and revenue requirements for a future test period in no way violates well-settled principles of rate making. The manuals of rate-making practices published by both AWWA and WEF allow for multi-year rate projections. Moreover, the Pennsylvania Public Utilities Commission (Pennsylvania PUC) allows for multi-year rate requests. Finally, there are several recent examples of municipal-owned utilities adopting multi-year rate increases.

The majority of PWD's costs are known within reason as the vast majority of the operation and maintenance (O&M) and infrastructure management related capital needs are already identified. Specifically, PWD has a reliable knowledge of the nature and magnitude of human resources, purchase of services from outside vendors, materials and supplies, and equipment needs that are required to provide safe and reliable water, sewer and stormwater service to its customers. The exact cost and magnitude of the level of these expenses may vary to a limited extent from year to year within a three-year rate period but not generally significantly enough to be deemed “speculative.”

PWD plans its capital improvements well in advance of execution taking in to consideration multiple factors including regulatory mandates, asset criticality and condition, risk of failure, service reliability, and other best asset management practices. Given the extent of PWD’s existing assets and planned improvements, the level of investment required over the next three years are well known and understood by PWD staff. Escalation factors that are reasonably aligned with known data sets, and based on experience and judgment are used in capital expenditure projections.

Adjustments (i.e. increases in planned expenditures) reflect hiring needs as determined by PWD management staff responsible for delivering their respective programs. While the timing of individual activities may shift slightly, PWD will realize the vast majority of the expenses associated with them within the three-year rate period.

In some instances these projections may underestimate potential costs due to unanticipated shifts in City policy that cause unexpected cost increases, actual cost increases that may be above expected inflation, and/or other market forces that could drive PWD costs beyond current projections. If these types of cost fluctuations occur, PWD will be able to manage costs within available budgets and/or leverage available balances in the rate stabilization fund and residual fund to meet FY 2021 requirements.

Q5. CAN YOU PROVIDE A FEW EXAMPLES OF MUNICIPAL UTILITIES THAT HAVE ESTABLISHED RATES FOR THREE OR MORE CONSECUTIVE YEARS?

A5. Yes. The following municipalities/utilities have established rates for three or more consecutive years:

Entity	Period	No. of Years
Allegheny County Sewer Authority (Allegheny County, PA)	FY 2018 - 2021	4 Years
Blue Springs, MO	FY 2017 - 2019	3 Years
Board of Commissioners for Charleston Water System, SC	FY 2014 - 2016	3 Years
Board of Public Utilities (Wyandotte County, KS)	FY 2010 - 2013	4 Years
Cincinnati Stormwater Management Utility	FY 2019 - 2022	4 Years
Harford County, MD	FY 2016 - 2021	6 Years
Napa (City of), CA	FY 2011 - 2015	5 Years
Northeast Ohio Regional Sewer District (NEORSD)	FY 2012 - 2016	5 Years
Pico Rivera (City of), CA	FY 2013 - 2017	5 Years
Santa Ana (City of), CA	FY 2015 - 2019	5 Years
St. Louis Metropolitan Sewer District (MSD)	FY 2017 - 2020	4 Years
Seattle, WA	FY 2016 - 2018	3 Years

In California, utilities may set rates for up to 5-years, and multi-year rate increases are commonly adopted.

It is important to note that a utility can always change a series of rate increases if future analysis shows that it is warranted, and the utility follows a proper rate change process. Absent that, multi-year rate increases provide financial stability and are a financial management indicator that is "credit positive" as far as the rating agencies are concerned. In addition, the adoption of multi-year rates provides customers with increased certainty about their future bills.

Q6. DO YOU AGREE WITH MR. MORGAN'S CONTENTION THAT RATE INCREASES SHOULD BE LIMITED TO A TWO YEAR RATE PLAN?

A6. We strongly disagree. As noted in the prior responses, the adoption of multi-year rates (beyond two-years) is an acceptable practice founded in standard rate-making principles and recognized throughout the industry as evidenced by the communities that have done just that.

In addition, adoption of only a two-year rate plan will severely limit PWD's ability to evaluate alternative rate structure options ahead of the next rate proceeding. The Alternative Rate Structure Analysis will take approximately 18 to 24 months to complete. Further, Black & Veatch's work on the current FY 2019 to FY 2021 rate proceeding commenced in April 2017. Assuming that the current proceedings finish by the end of July of 2018 and the Board does adopt rates for the next three years, work for the next rate proceeding would need to begin by mid-2020. For PWD to consider an alternative rate structure as part of the next proceeding, work on the required analysis would need to commence immediately following the close of current proceedings.

Q7. MR. MORGAN STATES THAT PWD DOES NOT ADHERE TO "ACCEPTED RATEMAKING PRACTICES OR STANDARDS IN DEVELOPING ITS COST OF SERVICE." IS THIS TRUE?

A7. No. This statement is completely incorrect. PWD does adhere to accepted ratemaking practices and standards in developing its cost of service, as outlined in the manuals of practice for rate-making in the water and wastewater utility industry. In fact, members of Black & Veatch staff have been active participants in the development of these manuals of practice for over the past 50 years.

Also, with the use of any guidance document or manual, it is important to recognize the keyword "guidance." The AWWA and WEF manuals explicitly recognize the need to consider the specific circumstances of the systems and services provided. Moreover, AWWA and WEF did not develop these documents with the intent that readers follow the guidance blindly, or without question. It is the stated intention of these industry organizations that readers use the documents as described (i.e. as guidance). The AWWA and WEF manuals themselves explicitly recognize the need to consider the specific circumstances of the systems and services provided.

PWD is a municipally owned utility and is not subject to PUC regulations or legislation. Furthermore, PWD is not an investor-owned utility. Any over-performance is either reinvested into the utility, leveraged to manage future rate increases and/or to maintain necessary liquidity. As demonstrated by the testimony of Melissa LaBuda (PWD Statement 2) has shown, PWD is far from being an outlier with regard to any financial metrics. If Mr. Morgan's statement were true, PWD's reserves and current credit rating would be well beyond those of peer communities.

Q8. DO YOU AGREE WITH MR. MORGAN'S CONTENTION THAT RATES MUST BE BASED SOLELY ON "KNOWN AND MEASURABLE" CONDITIONS?

A8. "Known and Measurable" is a standard typically utilized in PUC proceedings, generally for investor-owned and regulated utilities[1]. As noted in the AWWA M1 Manual, a municipally-owned utility may define its own policies and/or best financial performance targets when developing revenue requirement projections for the test-year periods.

AWWA recognizes that *"Generally, government-owned utilities are free to set their own policies regarding test-year periods. However, investor-owned utilities and those government-owned utilities that are under the jurisdiction of utility commissions are subject to particular legislative and regulatory practices that must be followed. These practices vary from jurisdiction to jurisdiction."*

As previously stated, PWD uses fully projected test years in establishing rates that incorporate (i) any known changes to O&M expenditures as part of a normal budgeting best practice, and (ii) reasonable assumptions that are based on historical actual experience. PWD's approach in using a fully projected rate period is consistent with the rate-making practices outlined in the AWWA and

[1] In some states, such as Wisconsin and Rhode Island, municipally-owned utilities are PUC-regulated and as such may use "known and measurable" approach for projecting the test year O&M expenses.

WEF manuals of practice and wholly reasonable. In this context, Section 13-101 of the City code fully contemplates that rates will be established for a prospective period (reasonable number of years) and can include an allowance for unforeseen expenditures. Section 13-100 permits PWD to establish rates and charges that include allowances related to unforeseen expenses, <u>reasonably</u> anticipated costs increases and decreases in revenues.

III. REVENUE PROJECTIONS

Q9. MR. MORGAN ARGUES THAT THE COLLECTION FACTORS USED IN PROJECTING REVENUE RECEIPTS ARE FROM A "PERIOD THAT IS STALE." DO YOU AGREE?

A9. No, we disagree with Mr. Morgan's statement. The collection factors that we determined and used in the revenue projections are valid and appropriately reflects the receipt of payments over multiple years, for a given fiscal year billings. For instance, payments for FY 2012 billings are received in FY 12, FY 13, FY 14 and beyond. Similarly, payments for FY 2013 billings are received in FY 13, FY 14, and FY 15 and beyond. To deem these critical historical periods as "stale", reflects Mr. Morgan's lack of understanding that payments received over three periods (Billing Year, Billing Year plus 1, and Billing Year plus 2 and beyond) actually reflect "one set" of payment patterns. As explained in response to PA-VI-28, PWD prudently uses a five-year average for just the "Billing Year"; a four-year average for the "Billing Year plus 1" and three-year average for "Billing Year plus 2 and beyond", as this approach not only effectively uses data that is available on actual payment patterns but also reflects potential payment volatility that could occur due to customer's economic conditions and other factors.

Q10. DO YOU AGREE WITH THE THREE-YEAR AVERAGE APPROACH TO DETERMINING COLLECTION FACTOR THAT MR. MORGAN HAS USED IN HIS ANALYSIS?

A10. We do not agree with the three-year average approach to determining the collection factor that Mr. Morgan used in his analysis. It appears that Mr. Morgan only utilized collection data from the most recent three year period including Fiscal Years 2016 to FY 2014 billings. His approach has two fundamental flaws: (i) His approach of using the most recent three years of available data does not provide sufficient data to reliably determine "payment pattern", and (ii). His use of the most recent three years of data actually provides only one set of complete payment pattern, (complete payment pattern for just FY 2014 billings). In addition, as illustrated in the following table, we believe it is appropriate to include the data from years immediately preceding the most recent three years, as historical experience demonstrates that PWD continues to receive payments on bills that are outstanding for more than three years.

	Non-Stormwater Only Billings		
Fiscal Year	Billing Year	Billing Year Plus 1	Billing Year Plus 2 and Beyond
2016	86.84%	NA	NA
2015	87.03%	8.24%	NA
2014	86.17%	8.61%	1.00%
2013	84.80%	9.80%	1.69%
2012	84.67%	9.67%	1.99%

Notes:
– NA = Not Available

IV. REVENUE REQUIREMENT PROJECTIONS

Q11. DO YOU AGREE WITH MR. MORGAN'S CONCLUSION THAT BUDGETING FOR A GIVEN FISCAL YEAR IS TO "MEET A SPECIFIC OBJECTIVE," AND PWD'S SPECIFIC OBJECTIVE IS TO MEET DEBT SERVICE COVERAGE RATIOS STATED IN BOND INDENTURES? DO YOU AGREE THAT PWD'S BUDGETING FOCUS IS JUST TO MEET A SINGLE OBJECTIVE?

A11. No, we do not. PWD's highest priority is to ensure current systems are operating at the highest possible levels to meet customer demands with safe and reliable water and wastewater services that comply with regulatory requirements. First and foremost, the Department develops its budget to meet the operational and capital needs of the utility in a fiscally responsible manner while recognizing resource limitations and being mindful of rate-payer impacts. Compliance with debt covenants and reserves policies are also important considerations, but are not the <u>sole</u> focus of the budget as Mr. Morgan erroneously claims. It is also the Department's goal to increase the use of internally-generated funds, thereby reducing the use of debt financing.

Q12. MR. MORGAN STATES THAT THE RATE BOARD SHOULD NOT APPROVE HIGHER RATES SOLELY FOR THE PURPOSE OF TARGETING DEBT SERVICE COVERAGE ABOVE THE LEGAL MINIMUM (1.20X) -- CLEARLY INFERRING THAT THIS IS THE DEPARTMENT'S OBJECTIVE. DO YOU AGREE WITH THE PREMISE OF THE ABOVE STATEMENT?

A12. No. PWD must meet many required regulatory mandates and comply with a number of regulatory and financial requirements. The cost drivers for the current rate proceeding are (1) rising workforce costs, (2) fringe costs shifting from capital to operating, and (3) continued costs related to the consent order. Black & Veatch's direct testimony (PWD Statement No. 9A) and Ms. Melissa LaBuda's direct testimony (PWD Statement No. 2) provide detailed information regarding the key rate case drivers. Finally, as noted in response to Q11, the Department's goal is to increase the use of internally-generated funds, thereby reducing the use of debt financing. Consequently, PWD uses revenues from the debt service coverage element to help pay for capital.

Q13. DO YOU AGREE WITH MR. MORGAN'S RECOMMENDATIONS TO AMORTIZE CERTAIN O&M EXPENSES? PLEASE EXPLAIN.

A13. No, we do not agree. Amortizing one-time O&M expenses for rate recovery is a frequent practice applicable to PUC regulated entities. However, within municipal rate-making, it is not usual for utilities to amortize one-time O&M expenses, generally because any timing difference between paying for an actual expense and recovering for that expense may lead to a revenue shortfall. Instead, municipal agencies normalize total anticipated O&M costs of a service or activity through their budgeting process such that the total O&M costs for a certain service or activity can in effect be recovered over multiple years, when that normalized cost is projected as a recurring cost. Amortizing one-time O&M expenses may be appropriate if they are part of a capital activity – for example, an engineer may charge his time to O&M while working on a feasibility study. If the study supports a capital project, then the utility can capitalize the engineer's time as part of the capital project. Mr. Morgan does not identify any specific one-time O&M expenses in his testimony, beyond those noted in Q14 and Q15 below. As such, his general statement does not provide meaningful information for municipal rate-setting process.

As noted in Ms. LaBuda's Direct Testimony, PWD's establishes rates using a cash basis of accounting. Under this basis, expenditures are recognized and recorded as expenses at the time they are paid or encumbered. In other words, PWD cannot normalize or amortize expenses and must incur them at the time that they occur.

Q14. DO YOU AGREE WITH HIS APPROACH ON "NORMALIZING THESE COSTS OVER TWO YEARS?" PLEASE EXPLAIN.

A14. No, we do not agree. The line item in PWD's budget, which includes rate case expenses, does not represent a one-time expense. Rather this line item covers a multitude consulting services, which are already under contract and include updates to the City's 5-year plan; supporting revenue bond issuances; compliance filings; ongoing reporting as well as other financial plan and rate making-related activities.

Q15. MR. MORGAN OPINES THAT RATE CASE EXPENSES, AND TAP IMPLEMENTATION COSTS SHOULD BE AMORTIZED OVER TWO YEARS. DO YOU AGREE?

A15. No. The Department has incurred significant costs associated with designing and implementing a brand-new program. These startup costs should be recovered as incurred or the Department will face a revenue shortfall Moreover, TAP implementation costs are not complete and delaying full cost recovery for this important program may impact its success.

Q16. DO YOU AGREE WITH MR. MORGAN'S CONTENTION THAT ADDITIONAL SMIP/GARP EXPENSE COULD CONTRIBUTE TO HIGHER RATE STABILIZATION FUND BALANCES? PLEASE EXPLAIN?

A16. No. If PWD does not spend monies on SMIP/GARP, they could be redirected to other O&M expense needs and/or to fund capital improvements. However, it is highly unlikely that PWD will not spend the allotted budget within the rate period. As indicated in the testimony of Erin Williams (PWD Statement No. 6), PWD spent $1.7 million over its initially anticipated budget in FY 2017. The increase in costs is associated directly with program demand. In addition, the greened acres achieved via the SMIP/GARP program represent 31% of the total 5-year milestone. With increasing milestones over the next 5-year period, budget expenditures can be expected to increase to achieve the targets associated with the City’s Consent Order and Agreement (COA).

Q17. DO YOU AGREE WITH MR. MORGAN'S ASSERTIONS THAT (A) THE PROPOSED RATE INCREASE IS FULLY FUNDING ADDITIONAL SMIP/GARP PROJECTED EXPENDITURES DURING THE RATE PERIOD, AND THAT (B) NOT FUNDING ADDITIONAL SMIP/GARP COSTS PROVIDES AN INCENTIVE FOR PWD TO CONTROL COSTS?

A17. No. First, the proposed rate increase does not fully fund the increased SMIP/GARP expenditures. As outlined in PWD Statement No. 9A, PWD reviews its revenue and revenue requirements on a holistic basis. The financial plan includes a series of planned withdrawals from the Rate Stabilization Fund. Therefore the planned increase in SMIP/GARP program expenses will be funded by a combination of rate revenues and existing fund balances.

Secondly, not funding SMIP/GARP does not incent PWD to control costs. The opposite is true. As stated in Erin Williams Direct Testimony, SMIP/GARP provides cost savings in that the "cost of constructing green stormwater infrastructure is lower for projects on private land than for projects constructed by the City on public land." Another benefit to PWD and its customers is that the long-term operation and maintenance of the green stormwater infrastructure remains the responsibility of the private property owner.

It bears emphasis that relying on future cost savings and efficiencies in areas not already known to PWD would not allow for effective planning and may potentially delay project implementation by not taking advantage of the current demand for the program.

PWD's greened acre requirements remain the same regardless of funding allocated to the SMIP/GARP program. As alluded to above, not funding SMIP/GARP would require PWD to pursue additional greened acres on public property, which will cost more to construct. In addition, PWD would be responsible for the long-term operation and maintenance expenses, ultimately adding to O&M expenses. In other words, all else being equal, not funding SMIP/GARP at the level of requested additional expenditures will very likely result in future increased costs to PWD ratepayers.

Q18. DO YOU AGREE WITH MR. MORGAN'S RECOMMENDATION THAT THE BOARD NOT APPROVE AN INCREASE TO THE GARP BUDGET OF $10MM PER YEAR AND THAT THE DEPARTMENT RELY ON POTENTIAL PERFORMANCE VARIANCES FROM RATE CASE TO FUND THE PROGRAM?

A18. No. We do not agree. The GARP program is not something that is merely optional or discretionary. It is not a program that can or should be conditioned on "potential performance variances."

GARP is absolutely critical to the Water Department for three reasons:

First, GARP is essential to meeting our state and Federal CSO Consent Orders. Our Consent Order and Agreement with the Commonwealth of Pennsylvania requires us to, among other things, meet targets for what is known as "Total Greened Acres." Total Greened Acre is the number of acres within the City that we must control the stormwater runoff from to achieve our ultimate goal of an 85% reduction in our CSO discharges. Our goal for 2021 requires us to achieve 2,148 total greened acres. Without the GARP program, we would be unable to achieve this goal resulting in the violation of our state and Federal Consent Orders.

Second, GARP is critical to controlling the costs necessary in complying with our Consent Orders. We create greened acres in three ways. First, all new development is required to meet our stormwater regulations which require the management of stormwater on site thereby producing greened acres. However, the number of acres produced in this manner falls far short of our required goals. Hence, we have two other methods.

The Department can build green infrastructure in the street and manage the runoff from streets, or the Department can utilize the GARP program to manage large volumes of stormwater on commercial and industrial sites. After almost seven years of experience in attempting to meet our Consent Order mandates it has become abundantly clear that GARP is by far and away the least expensive, most efficient, most timely and simplest way to produce greened acres. Failure to implement GARP will result in increased costs and therefore higher rates to our customers.

Third, GARP provides relief to our most highly impacted industrial and commercial customers. Many of these customers saw their stormwater bills dramatically increase from 10 to 100 times when the Department moved to a land-based method of allocating stormwater costs. GARP provides rate relief to these customers while at the same time providing the Department with its most economical method of producing greened acres.

Therefore, GARP provides the Department and its ratepayers with multiple benefits. From any perspective upon which you choose to view GARP, albeit environmental, regulatory, fiscal, etc. it simply makes good common sense to fund GARP fully.

Q19. DO YOU AGREE WITH THE ESCALATION FACTOR CHANGES THAT MR. MORGAN IS RECOMMENDING? PLEASE DISCUSS EACH CHANGE HE HAS PROPOSED.

A. Power

B. Gas

C. Class 200

D. Chemical Cost

E. Capacity to Pay Energy Cost

F. Transfers (Mr. Morgan is including Transfers to Residual Fund)

A19. No. We disagree with Mr. Morgan's changes to the escalation factors. Mr. Morgan's suggestion is based on his flawed premise that only a two-year rate period is acceptable and that if the Board approves a three-year period that escalation factors in the third year should be zero. He also attempts to justify his recommendation by falling back on the "known and measurable" standard, which again has no bearing in municipal rate-setting. Again, PWD is not subject to the rules and regulations of the Pennsylvania PUC. Further, as noted in response to Question No. 8, Section 13-101 of the Philadelphia Code permits a reasonable allowance for unforeseen expenses in setting rates.

The escalation factors utilized in the analysis, as explained PWD Statement No. 9A Schedule BV-E5: WP-1 - Financial Plan - Revenue and Revenue Requirement Assumptions are based upon PWD's recent experience and take into account reasoned judgment of both PWD and City staff as well as Black & Veatch's opinion as PWD's Cost of Service consultant.

Power and Gas

With regard to both Power and Gas, the escalation factors used reflect the opinion of the City's Office of Sustainability, Energy Office, which coordinates energy purchases across City departments. Per the Energy Office's recommendations, we did not apply any escalation factors to power costs in FY 2019, and FY 2020 and gas costs in FY 2020. To assume that the City will experience no increase in either power or natural gas expenses after FY 2020 is unreasonable, and fails to recognize the Energy Office's expertise and experience in coordinating purchases for the City. As the Energy Office has already accounted for current hedges and the Energy Office's recent experience in dealing with the energy markets, the escalation factors should be considered as reasonable projections as they are based upon the Energy Manager's experience and provide a reasonable estimate for rate-making purposes.

General Costs and Other Class 200 Expenses

The cost of service analysis does not use the general escalation of 3.15% that Mr. Morgan references in his testimony. PWD Statement No. 9A Schedule BV-E5: WP-1 Financial Plan - Revenue and Revenue Requirement Assumptions details the escalation factors used in the analysis. Appendix 4 of the document merely presents the overall escalation in total costs that PWD has experienced between FY 2014 and FY 2016. Projected future test years use the escalation factors for individual costs codes. The escalation factor utilized for other Class

200 costs, which are primarily consulting services, is 3.3% and <u>does not</u> include the SMIP/GARP costs. Please note that the 3.3% assumption is consistent with PWD's historical two-year average increase experience as presented in Appendix 4.

Chemical Costs

Mr. Morgan's review of chemical cost escalation factors does not appear to recognize the responses to discovery questions PA-IV-12, PA-IV-22 and PA-IX-18, which detail PWD's recent experience in procuring chemicals for FY 2018 and FY 2019, not the budgeting process. Paraphrasing the responses:

The annual increases of 6.8% and 3.7% for FY 2019 and FY 2020 respectively, is based upon PWD's recent experience and unit costs provided during the <u>procurement process</u>. PWD's chemical contracts are on a two-year cycle. For FY 2019, all chemical costs are known except for activated carbon, which was estimated using the <u>previous bid information and current market conditions</u>. The contracted price for ferric chloride, the chemical that represents 30% of the chemical budget for water treatment increased 31.29% in January 2018. This increase will impact FY 2019 and half of FY 2020. The estimated cost used for FY 2020 comes from PWD's recent experience and unit costs provided during the procurement process that just occurred in the summer/fall of 2017. A nominal annual escalation of 1% for FY 2021 through FY 2023 based upon a review of the overall consumer price index and PWD's recent experience.

Similar to the power and gas costs, Mr. Morgan does not appear to recognize the respective expertise of PWD Operations staff in establishing the cost escalation factors based upon both their “known and measurable” experience or their professional judgment as the entity responsible for procuring chemicals needed to treat both source water and wastewater.

In addition, Mr. Morgan does not recognize the impact that variations in quality of source water may have on treatment costs. To assume that PWD will experience no increase in chemical costs given recent experience and ignoring the opinion of PWD staff is unreasonable.

Capacity to Pay Energy Costs

Mr. Morgan’s recommendations that PWD’s budget be adjusted to eliminate “capacity to pay for energy cost due to weather-related events and also to account for energy not purchased in advance” does not recognize the following points:

1) the application of actual to budget factor applied for energy costs, and
2) that rates may be established with allowances related to unforeseen expenses.

The purpose of the actual to budget factors is to account for differences in budgeted costs and actual expenditures. As presented in Appendix 3 PWD Statement No. 9A Schedule BV-E5: WP-1 Financial Plan - Revenue and Revenue Requirement Assumptions, we applied an actual to budget factor 75.62% to budgeted power costs. In other words, the projected expense utilized to establish rates and charges reflects a reduction from the budgeted of nearly 25%. The "capacity to pay for energy costs" adjustment was included in prior budgets and PWD has already accounted for the actual spending expected in PWD's actual to budget factors. Mr. Morgan's recommendation essentially would double count the difference in actual expenditures versus the budget by reducing the initial budget amount further than necessary. The power expense used for projected future test years is already reduced by nearly $6.5 to $7.0 million when compared to the estimated budget.

Transfers

Mr. Morgan assumes that the Transfers represented in Class 800 as presented in Appendix 4 include transfers to Residual Fund for further transfer to the Capital Account. The historical experience presented in Appendix 4 does not include the Residual Fund transfer for further transfer to the Capital Account. The total expenses used to derive the escalation factor of 2.47% range from $6.24 million to $8.10 million. The transfer to the Residual Fund for further transfer to the Capital Account is on the order of $28 million dollars. As such, the basis for Mr. Morgan's proposed escalation factor is incorrect.

Q20. DO YOU AGREE WITH THE DEBT SERVICE INTEREST RATE CHANGES THAT MR. MORGAN IS RECOMMENDING?

A20. Yes, we agree with the debt service interest rate changes that Mr. Morgan recommends for the projected FY 2019 to FY 2021 rate period. The proposed 5.25% interest rate assumption is reasonable for the projected bond issuances during FY 2019 to FY 2021. However, Mr. Morgan's recommendations regarding FY 2017 and FY 2018 are not applicable. The projected debt service associated with bonds issued in FY 2017 and FY 2018 reflects the actual debt service schedules associated with the Water and Wastewater Revenue Bonds Series 2017A and the Water and Wastewater Revenue Refunding Bonds Series 2017B.

Q21. DO YOU AGREE WITH MR. MORGAN'S RECOMMENDATION THAT THE CAPITAL ACCOUNT DEPOSIT BE MAINTAINED AT 1%?

A21. No, we do not agree with Mr. Morgan's recommendation on maintaining the Capital Account Deposit at 1%. Mr. Morgan is correct that prior rate cases have reflected the Capital Account Deposit Amount at 1% of the depreciated value of system property, plant, and equipment. <u>However</u>, the 1989 General Ordinance defines the Capital Account Deposit Amount as 1% "or such <u>greater amount</u> (emphasis added) as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make renewals, replacements, and improvements in order to maintain adequate water and wastewater service to areas served by the System." Please refer to PWD Statement 9A Schedule BV-E5: WP-3 "Fiscal Year 2019 Capital Account Deposit" which supports a Capital Account Deposit Amount based on 1.5%.

As noted in Schedule BV-E5, the General Water and Wastewater Revenue Bond Ordinance of 1989 states that the "*Capital Account Deposit Amount means an amount equal to one percent (1%) of the depreciated value of property, plant and equipment of the System or such greater amount as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make* *renewals, replacements, and improvements in order to maintain adequate water and wastewater service to the areas served by the System."*

The amount of one percent of the depreciated value should be considered a <u>minimum</u>. As noted in the ordinance, greater amounts are allowable based on the certification of a Consulting Engineer.

As summarized in Schedule BV-E5: WP-3:

- The average annual capital expenditure during the period of FY 2010 through FY 2016 is 1.62 times that of annual capital expenditure during FY 2004 through FY 2009. Commensurate with this increase in average annual capital expenditure, the adjusted level of annual Capital Account Deposit Amount would be approximately 1.56 percent of the FY 2016 depreciated value of property, plant, and equipment of the water and wastewater assets.
- PWD's annual capital spending has increased significantly since FY 2010.
- The annual level of the Capital Account Deposit Amount has consistently stayed set at one percent of Net Capital Assets. While the amount of Capital Account Deposit Amount has increased over the years, the percentage of Capital Account Deposit Amount, relative to the total annual capital spending levels, has decreased.
- Adjusting the recommended Capital Account Deposit Amount to approximately 1.5 percent of Net Capital Assets would better align the Capital Account Deposit Amount to the enhanced levels of capital

spending that are occurring and are likely to continue during the foreseeable future.

It should be noted that increasing the Capital Account Deposit Amount from 1.0% to 1.5% does not increase the annual System revenue requirement. The level of revenues needed to fund the Capital Account Deposit Amount based on 1.5% is less than the level of revenues necessary to meet the General Ordinance covenant and insurance covenant requirements. Furthermore, the increase in the Capital Account Deposit is accompanied by a corresponding decrease in the Transfer to the Residual Fund. The change is shown as a shift of approximately $12 million between lines 27 and 31 of Table C-1 between FY 2018 and 2019, where the total requirements of lines 27 and 31 would remain roughly the same.

V. RATE MODEL

Q22. MR. MORGAN ASSERTS THAT THE "ACCURACY OF PWD'S RATE MODEL IS A LONGSTANDING PROBLEM." DO YOU AGREE?

A22. No, we disagree with Mr. Morgan's assertion.

Due to the nature of fully projected test years, actual results will vary from the projections. Unlike private utilities, where profits are paid as dividends to system investors, PWD deposits any historical over-performance which result in surplus revenues into the rate stabilization fund which is then utilized to offset system revenue increases.

	2012	2013	2014	2015	2016	2017
Total Revenues						
Rate Decision	584,320	598,532	637,774	662,139	667,931	696,256
Actual	591,681	606,730	643,019	676,846	678,906	720,645
Variance	7,361	8,198	5,245	14,707	10,975	24,389
Percent Variance	1.3%	1.4%	0.8%	2.2%	1.6%	3.5%[a]
Operating Expense						
Rate Decision	390,033	417,619	427,730	429,937	452,179	479,063
Actual	375,085	399,316	410,797	426,767	432,857	480,257
Variance	(14,948)	(18,303)	(16,933)	(3,170)	(19,322)	1,194
Percent Variance	(3.8%)	(4.4%)	(4.0%)	(0.7%)	(4.3%)	0.2%

Notes:

a. A significant portion of the variance in the FY 2017 revenue projection is due to an $11.0 million release from the debt service reserve as a result of the debt service savings provided by a refunding. The variance excluding the one-time release would be $13,389 or 1.9%

As documented in the record of the rate proceeding for the FY 2017 and FY 2018 Rates, PWD and the Water, Sewer and Stormwater Rate Board made significant efforts to establish reasonable projections for the basis of the FY 2017 and FY 2018 rates. The lower variances experienced in FY 2017 reflect these efforts.

PWD believes that more rigorous financial management, as implemented during recent years, promises to yield lower variances going forward.

Q23. DO YOU AGREE WITH MR. MORGAN'S ASSERTION THAT THERE ARE "THOUSANDS OF ASSUMPTIONS" IN THE RATE MODEL?

A23. We do not agree with Mr. Morgan's assertion that there are "thousands of assumptions" in the Rate Model. We concur that the Rate Model is complex in order to reflect the operations of a municipally owned multiple system utility with over $700 million in annual revenues. However, the records of this current and prior rate proceedings document that the assumptions in the model which provide the foundation of PWD rate requests are thoroughly reviewed and documented by PWD, the Rate Board, and participating interveners.

VI. OVERALL PROPOSAL

Q24. DO YOU AGREE WITH MR. MORGAN'S PROPOSED RECOMMENDATION THAT THE RATE BOARD SHOULD NOT APPROVE ANY RATE INCREASES AND THAT PWD SHOULD USE THE RATE STABILIZATION FUND (RSF) TO COVER ANY ADDITIONAL REVENUE REQUIREMENTS FOR FY 2019 AND FY 2020?

A24. No we disagree. Mr. Morgan's recommendation rests on his basic premise and assumption that a $110 million in the RSF is adequate for PWD's financial resiliency.

Mr. Morgan is fundamentally wrong in his basic premise regarding the RSF annual fund balance. As explained in PWD Rebuttal Statement No. 2, a $110 million fund balance in the RSF does not meet PWD's short term or long term liquidity needs. Hence, PWD’s Deputy Commissioner for Finance and PWD’s Financial Advisors have recommended a target balance of $150 million.

Mr. Morgan also opines that PWD can use the RSF on an ongoing basis to fund ongoing O&M expenses. Mr. Morgan’s assertion is neither a financial best practice nor the intended purpose of the RSF. Moreover, use of the RSF to cover ongoing O&M expenses can only continue until such time that the fund balance reaches the recommended target RSF level. If the RSF were to be drawn down well below the recommended target level to simply cover ongoing expenses, then the resulting fund balance will neither be sufficient to meet PWD’s liquidity needs nor provide the critical funding capacity to help mitigate future rate increases.

In short, when making his recommendations, Mr. Morgan fails to consider either (i) PWD's long term responsibility to provide safe and reliable service or (ii) PWD's obligation to manage future rate volatility for its customers. As shown in Table C-1 (PWD Statement No. 9A), in the proposed financial plan, the projected revenue adjustments needed are already at 6.8% for FY 2022 and FY 2023. While these two fiscal years are beyond the proposed rate period, it is important to also consider what the rate impact would be immediately following the proposed rate period, when establishing rates and charges. We note that these additional revenue adjustments are in addition to for the proposed revenue increases in FY 2019 through FY 2021. Without any adjustments in FY 2019 and FY 2021, it is likely that PWD would need to draw the RSF below acceptable, fiscally responsible levels consequently further accelerating the risk for significant increases (i.e., double-digit) beyond the rate period to meet future revenue requirements.

Q25. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY IN THIS MATTER?

A25. Yes, it does. However, Black & Veatch notes that it has discovery requests outstanding and that it reserves the right to supplement its rebuttal testimony or otherwise respond (on the record) upon receipt of responses the outstanding discovery requests.

David A. Katz was appointed as a Deputy Water Commissioner for the City of Philadelphia's Water Department (PWD) in June 2001. As the Deputy Water Commissioner for Compliance, Mr. Katz is involved in all aspects of environmental permitting, negotiation and compliance under all federal, state and local environmental laws. Mr. Katz's major duties include:

1. Negotiating and resolving all issues regarding PWD's Wastewater Plants NPDES permits;

2. Negotiating all Consent Orders and Agreements with all regulatory agencies including the City's Long Term Control Plan;

3. Negotiating the City's NPDES Storm Water permit;

4. Handling all TMDL related issues including PCBs, sediment, nutrients, etc.

5. Working with state regulatory authorities, both under the Clean Water Act and Safe Drinking Water Act, to ensure fair, equitable and scientifically sound new regulations are passed.

6. Negotiating and addressing any issues that arise under PWD's Federal Title V and state air permits.

7. Working with PWD's wholesale customers in negotiating their contracts, resolving any disputes that arise, and ensuring their financial contribution to PWD's LTCP.

8. Creating and ensuring the success of PWD's SMIP/ GARP program to ensure compliance with PWD's LTCP.

9. Working with businesses to address their rate issues, especially regarding storm water billing.

10. Assisting with any PWD rate related matters that arise.

Mr. Katz previously served as the General Counsel to the Water Department since April 1992. He holds a B.S. in Economics from the Wharton School, University of Pennsylvania and a J.D. from the Washington College of Law, American University.