PHILADELPHIA WATER DEPARTMENT
STATEMENT 2A

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

Direct Testimony

of

Lawrence Yangalay, Lawrence Rich

and Patricia Rogalski

on behalf of

The Philadelphia Water Department

Dated: February 2025

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q1. PLEASE STATE YOUR NAME AND POSITION WITH THE PHILADELPHIA WATER DEPARTMENT.

A1. My name is Lawrence Yangalay. My position with the Philadelphia Water Department, also referred to in this testimony as "PWD" or "the Department," is Deputy Commissioner of Finance.

Testifying with me from PWD's Finance division are Lawrence Rich who serves as the Assistant Deputy Commissioner of Finance and Patricia Rogalski who serves as the Fiscal Analyst III.

We may be joined at the technical hearings by Valarie J. Allen of the law firm Ballard Sphar who is the City's Bond Counsel and who prepared Schedule FP-2. In addition, we may also be joined at the technical hearings by the Department's financial advisors who prepared PWD Statement 2B and Schedule FA-1.

Q2. WOULD EACH OF YOU PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES, EXPERIENCE AND EDUCATIONAL BACKGROUND.

A2. Our respective backgrounds and experience are summarized below:

<u>Mr. Yangalay</u>

I am responsible for the Department's financial, accounting and budgetary functions, including overseeing the budget, accounting for financial activities, issuing financial reports, seeking grant funding and developing the debt issuance requirements. In connection with debt financings, I participate in meetings with rating agencies with respect to the credit ratings on Water and Wastewater System debt. I also lead the Department's efforts related to the PWD Financial Stability Plan and Cost of Service study for general rate proceedings.

I hold a Masters in Management with concentration in Public Administration from Wilmington University, a Masters in Accounting from Ohio State University and a Bachelor of Business Administration with a concentration in Accounting from the University of Liberia.

I started employment with the City of Philadelphia in 2005. I joined the Water Department in 2017 and served in positions of increasing responsibility as the Utility Financial Services Supervisor, Fiscal Officer and Utility Financial Services Manager. In 2021, I was appointed the Assistant Deputy Commissioner. I am currently the Deputy Commissioner. A more detailed overview of my relevant work experience is set forth in my attached resume which is marked as Schedule LY-1.

<u>Mr. Rich</u>

I am responsible for managing the Department's budgetary, grants, and wholesale functions. I am also responsible for submitting financial reports for the Department.

I hold a Bachelor of Science Degree in Business Administration from Drexel University in 2009.

I started employment with the City of Philadelphia in December 2011 at the Department of Aviation. I joined the Water Department in September of 2019 as Utility Financial

Services Supervisor. I was elevated to my current position in December 2023. A more detailed overview of my relevant work experience is set forth in my attached resume which is marked as Schedule LR-1.

Ms. Rogalski

I am responsible for managing the Department's analysis of program costs and data pertaining to the rate costing model. I am also responsible for managing the cash flow and debt service tracking for the Department.

I hold a Masters of Business Administration and a Bachelor of Science in Secondary Mathematics Education from Temple University.

I started employment with the City of Philadelphia in January of 2016 with the Department of Revenue. I joined the Water Department in October 2019 as a Fiscal Analyst II and was promoted to Fiscal Analyst III in April 2021. A more detailed overview of my relevant work experience is set forth in my attached resume which is marked as Schedule PR-1.

Q3. PLEASE DESCRIBE THE PURPOSE OF THIS DIRECT TESTIMONY.

A3. The purpose of our testimony is to (a) describe the rate relief proposed by the Department; (b) identify key drivers of increased revenue requirements; (c) describe the financial condition of the Department; (d) summarize financial and rate making requirements; (e) explain the PWD Financial Plan; (f) discuss the proposed tariff changes; (g) summarize changes in rates and charges approved in prior rate proceedings; and (h) discuss PWD's success in obtaining grants from federal and state sources.

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

A4. The following schedules accompany our testimony.

Schedule LY-1:	Resume of Lawrence Yangalay
Schedule LR-1:	Resume of Lawrence Rich
Schedule PR-1:	Resume of Patricia Rogalski
Schedule FP-1:	Financial Plan
Schedule FP-2:	Bond Counsel Memorandum
Schedule FP-3:	Rating Agency Reports
Schedule FP-4:	Water Fund Projection Summary
Schedule FP-5:	Summary of Ratemaking Requirements, Methodology and Development of Revenue Requirements
Schedule FP-6:	Proposed Language and Other Changes
Schedule FP-7:	Summary of Prior Rate Proceedings
Schedule FP-8:	Summary of PWD Efforts to Gain Assistance

II. DESCRIPTION OF PROPOSED RATE RELIEF

Q5. WHAT LEVEL OF INCREASED REVENUES IS BEING REQUESTED?

A5. The Department is requesting annual revenue increases to generate additional incremental revenues of approximately $73.630 million in FY 2026 and an additional $58.858 million in FY 2027 with proposed effective dates of September 1, 2025, and September 1, 2026, respectively.

Q6. OVER WHAT PERIOD OF TIME ARE THE PROPOSED INCREASED REVENUES BEING REQUESTED?

A6. The Department is requesting additional incremental revenues based on forecasted revenues and revenue requirements for FY 2026 and FY 2027 (hereafter sometimes referred to as the "Rate Period"). This two-year rate period is consistent with the Rate Board's prior rate determinations in the 2016, 2018, 2020 and 2023 general rate proceedings. As discussed in PWD Statement 7 (the direct testimony of Black & Veatch), AWWA's "Principles of Water Rates, Fees, and Charges Manual of Water Supply M1" (the "AWWA Manual" or the "M1 Manual") is an industry manual, which was utilized in the cost-of-service study. The M1 Manual acknowledges that government-owned utilities may use multi-year rate periods and phase in rates over the rate period.

Q7. PLEASE EXPLAIN WHY ADDITIONAL REVENUES ARE NEEDED IN FY 2026 AND FY 2027.

A7. Current rates are insufficient to pay day-to-day operating expenses, debt service and support the Department's capital program for the Study Period, FY 2025-2030. Importantly, current rates will be insufficient to meet the Department's mandatory covenants with investors (e.g., debt service coverage) during the Rate Period.

Additional revenues are needed in FY 2026 and FY 2027 to (i) offset the under-performance in operating revenues; (ii) pay for the operating and maintenance needs of the Department; (iii) support its ongoing capital improvement program ("CIP"); and (iv) improve the Department's financial reserves and metrics.

The approval of the requested rate increases will ensure funding for safety and reliability of the system. The requested rate relief is also essential to make progress in meeting the enumerated financial goals and metrics as well as remain in compliance with all rate covenant requirements (including the 90% Test and debt service coverage in FY 2027) and maintain reasonable liquidity for FY 2026 and FY 2027.

The financial difficulties being experienced in FY 2025 will only get worse in FY 2026 and FY 2027 without rate relief. The demonstrated need for rate relief is shown in Table C-1A in Schedule BV-1, PWD Statement 7, and should be approved to ensure that the Department can meet the objectives of the updated Financial Plan, Schedule FP-1.

Q8. CAN THE DEPARTMENT PARTIALLY OFFSET THE PROPOSED RATE INCREASES BY MAKING ADDITIONAL WITHDRAWALS FROM THE RATE STABILIZATION FUND?

A8. No. The Department acknowledges that, in prior rate proceedings, transfers (withdrawals) from the Rate Stabilization Fund ("RSF") were used to offset rate increases. However, this is not a reasonable option for the Rate Period because the Department is already planning a sizeable transfer from the RSF ($12.2 million) in FY 2025. Making additional significant withdrawals from the RSF would further lower financial reserves well below the Department's long-term targets and seriously weaken the Department's financial condition.

As opposed to an RSF withdrawal, the Department needs to replenish its financial reserves during the Rate Period. At the end of FY 2025, it is anticipated that the RSF will be at roughly $120 million or well below the Rate Board's target level of $135 million. Please recall that the targeted RSF balance was established to ensure that the Department has sufficient liquidity to meet (i) future unforeseen financial challenges and (ii) financial requirements such as meeting its rate covenants. At present, the Department is falling short of the above standard and cannot further diminish the RSF without the serious risk of having insufficient reserves to address future liquidity risks (e.g., escalating regulatory requirements, unanticipated operating needs or significant weather events).

To be sure, the RSF balance is projected well below targeted levels without rate relief. Even with the proposed increased additional revenues, the RSF will be slightly below the target level in FY 2026. See Table C-2 in Schedule BV-1. In the instant context, the appropriate fix is to increase rates (as requested) and to replenish the RSF during the Rate Period. The fix is not to further lower PWD's liquidity below target level by making additional withdrawals from the RSF during the Rate Period.

Q9. CAN THE DEPARTMENT FURTHER REDUCE ITS BUDGET TO PARTIALLY OFFSET THE PROPOSED RATE INCREASES?

A9. No. The Department cannot prudently make additional cuts in expenditures and/or make additional withdrawals from financial reserves to eliminate the need for rate increases in FY 2026 and FY 2027.

The Department is managing O&M spending in several areas (e.g., SMIP/GARP), refinanced portions of existing debt, deferred borrowing (lowering debt service), secured grant funding and calibrated its request so as to meet targeted financial metrics by the end of the Rate Period, FY 2027. Rate adjustments are needed despite steps taken by the Department to mitigate or partially offset the need for additional revenues. As explained in PWD Statements 3, 4A and 4B, the Department needs to proceed with the activities and projects identified in the above testimony to provide utility services that are safe, reliable, resilient and meet regulatory requirements.

III. DRIVERS OF INCREASED REVENUE REQUIREMENTS

Q10. WHAT ARE THE KEY DRIVERS FOR THE DEPARTMENT'S INCREASED REVENUE REQUIREMENTS DURING THE RATE PERIOD?

A10. The need for rate relief in FY 2026 and FY 2027 is caused by the following key drivers: (a) a significant decline in operating revenues relative to the 2023 Rate Determination revenue projections; (b) unavoidable increases in operating costs, which include increases in work force costs as well as expenses over various categories, such as contract services, debt service, materials/equipment, power and transfers and (c) the need to replenish financial reserves and meet mandatory financial metrics.

Q11. PLEASE DESCRIBE THE DECLINE IN OPERATING REVENUES.

A11. The 2023 Rate Determination approved projected revenues for FY 2025. *See* Schedule FP-1. Actual revenues in FY 2025 are projected to be **below** the approved level by approximately $36.8 million.

The Department is recovering lower revenues in FY 2025 than the revenues assumed by the Rate Board when it set the rates, due to numerous factors, such as lower billed volumes, a lower collection rate, and increased enrollment in TAP and the associated customer credits/discounts.

The Department will weather the decreased revenues in FY 2025 by managing its limited cash resources helped by slowing inflation especially on chemical costs. As alluded to above, PWD also plans to withdraw $12.2 million from its financial reserves in FY 2025 to make ends meet. See Table C-2 in Schedule BV-1, PWD Statement 7; Schedule FP-1.

Q12. PLEASE DESCRIBE HOW INCREASING WORK FORCE COSTS IMPACT REVENUE REQUIREMENTS DURING THE RATE PERIOD.

A12. The Department must pay increased work force costs associated with a wage increase negotiated with District Council 33 ("DC33"). A 5% wage increase and $1,400 signing bonus for DC33 unionized employees was negotiated in FY 2025 and will impact Rate Period expenditures. Other Class 100 expenses are also projected to increase.

Q13. HOW DO INCREASING OPERATION AND MAINTENANCE COSTS IMPACT REVENUE REQUIREMENTS DURING THE RATE PERIOD?

A13. Rising costs are driving the need for more revenue in FY 2026 and FY 2027. See, Schedule FP-1.

Simply put, the Department has experienced operating cost (sometimes referred to as "O&M" costs) increases related to contract services, materials/equipment, power and transfers[1] as well as other expense categories and work force costs, as we previously mentioned. O&M costs are driven by a variety of factors including labor negotiations, regulatory compliance and general economic conditions. These costs are projected to increase during the Rate Period. See PWD Statement 7, Schedule BV-1, Table C-6.

Please note that cost increases related to materials/supplies, equipment, and power being

[1] Services provided by other City operating departments (Finance, City Treasurer, Law Department, etc.).

experienced (and anticipated) by the Department are explained in PWD Statement 4A. In addition, the Department is projecting increased expenses for capital operations, such as upgrades, repairs, replacements and for maintenance activities. The capital budget is addressed in PWD Statement 3. Policies related to regulatory compliance and related upgrades, repairs, replacements are addressed in PWD Statement 4B.

Q14. PLEASE EXPLAIN THE DEPARTMENT'S FUTURE PLANS TO ACCESS THE CAPITAL MARKETS.

A14. The Department's capital budget is increasing year-to-year due to the growing need to maximize investment in infrastructure, including (but not limited to) residential lead service line replacements, to enhance safety and reliability as well as to ensure regulatory compliance.

The Department expects to finance its Capital Improvement Program, CIP, during the Rate Period with projected long term debt new money issuances totaling approximately $400 million. PWD also plans to utilize Pennsylvania Infrastructure Investment Authority ("PennVest") drawdowns of approximately $183 million and grant proceeds of approximately $21 million to support the CIP. One new money bond transaction ($400 million) is projected during the Rate Period in August 2027. Debt issuance projections and debt service coverage for the Rate Period are shown in the direct testimony of Black & Veatch. See PWD Statement 7; Schedule BV-1, at Tables C-1, C-2, C-8 and C-9.

The City does not anticipate issuing new money revenue bonds to support the Department's Capital Improvement Program in FY 2026. It does, however, anticipate the need for a new money bond issuance in FY 2027 to support the Department's Capital Improvement

Program. To be sure, PWD will need to fund upgrades, repairs and replacements of infrastructure. As explained in PWD Statements 3 and 4A, financial support for Capital Improvement Program is critically needed to avoid jeopardizing the Department's ability to appropriately invest in infrastructure improvements that are needed to maintain system reliability and customer service levels.

Q15. HAS THE DEPARTMENT TAKEN STEPS TO MAKE FINANCING ITS CAPITAL PROGRAM MORE ECONOMICAL?

A15. The Department has taken advantage of low interest rates to reduce debt service expenses and the associated debt burden on ratepayers. That is, PWD has completed two new money issues and two refundings representing $1.16 billion in par amount, since the 2023 rate proceeding, generating roughly $22 million in net present value savings. The Department has also increased its efforts to obtain grants and loans through PennVest, and other entities and programs, as summarized in Schedule FP-1 and more specifically addressed in Schedule FP-8, have resulted in benefits to the PWD and ratepayers (e.g., favorable credit ratings and associated lower debt service).

Q16. PLEASE DESCRIBE THE DEPARTMENT'S CURRENT APPROACH TO CAPITAL FUNDING.

A16. The Department has adjusted its capital funding approach to track the pace of construction spending. By way of background, numerous PWD capital projects are large undertakings and are completed over multiple years. Acknowledging the existing construction fund balance and considering the pace of current construction spending, the City anticipates financing projects in a manner that more closely aligns with the commencement of construction, rather than contracting projects only after all funding has been secured.

This is an adjustment from the prior capital funding approach and reflects spending capacity and timing related to City procurement and contracting, among other factors. Overall CIP funding sources, including revenue from current year rates, system revenue bond proceeds, WIFIA loans, WIFIA match funding (Cash or System Revenue Bonds), PennVest loans, grants, and accumulated interest, are considered with respect to available funding sources and in context of overall estimated spending.

Also please note that PWD will not issue new money revenue bonds in FY 2026. This is as a result of the adjustment in funding policy. This approach also helps to manage overall debt service during the Rate Period. I am also advised by Bond Counsel that the current capital spending approach is consistent with bond requirements (arbitrage restrictions).

Q17. PLEASE DESCRIBE THE DEPARTMENT'S PROJECTED FINANCIAL RESERVES AND METRICS WITHOUT RATE RELIEF IN THE RATE PERIOD.

A17. PWD rates will be insufficient to meet the Department's financial reserves target and mandatory covenants with investors (e.g., debt service coverage, 90% Test in FY 2027) without the authorization of additional operating revenues.

That is, without rate relief in FY 2026, the Department is projected to need a sizeable withdrawal (of about $43.4 million) from the RSF. That would drop the RSF balance to about $76.9 million, which is well below targeted levels. Such a significant drop could trigger a downgrade by the rating agencies.

Without rate relief in FY 2026 and FY 2027, the Department is projected to make another sizeable withdrawal (of about $76.9 million) from the RSF in FY 2027 in addition to the above-described withdrawal in FY 2026. That would deplete the RSF balance. In addition, for FY 2027, senior debt coverage would fall below 1.20x and the Department would fail the 90% Test.

IV. FINANCIAL CONDITION OF THE DEPARTMENT

Q18. IS THE PROPOSED RATE INCREASE NEEDED TO SUSTAIN UTILITY OPERATIONS AND IMPROVE THE DEPARTMENT'S FINANCIAL CONDITION?

A18. Yes. The requested rate increase is intended to sustain the Department's operations so that it can provide high-quality, reliable service to its customers.

The Department has no choice but to request rate relief. The standards, established by Philadelphia City Council ("City Council"), require that revenues (supported by rates) be at least equal to operating expense and debt service requirements. Revenues at the requested rates are projected to meet the mandatory financial metrics and to be sufficient to pay all of the projected expenses during the Rate Period.

The Department needs a rate adjustment to produce additional revenues in FY 2026 and FY 2027 (i) to offset reduced revenues relative to the 2023 Rate Determination, (ii) to pay for increased O&M and work force needs, (iii) to support its capital program, (iv) to maintain required reserves, and (v) to achieve the defined financial performance metrics.
Rate increases are necessary for FY 2026 and FY 2027 because PWD's financial condition has significantly deteriorated since the last rate case in 2023. As explained in greater detail

herein and in the other supporting testimony, schedules and exhibits:

- PWD plans to withdraw $12.2 million from its financial reserves in FY 2025 because of the inadequacy of current rates and cannot continue to do so and maintain its current favorable credit ratings. At the end of FY 2025, it is anticipated that the RSF will be at roughly $120 million. That puts the financial reserves well below targeted levels. Withdrawals from the RSF are unsustainable in this context.

- Revenues at current rates are insufficient to pay all of the projected expenses during the Rate Period. The FY 2025 revised expense projection points to higher costs. Operating expenses are projected to increase by $40.2 million from FY 2025 to FY 2026, and by $35.1 million from FY 2026 to FY 2027. Table C-1A in Schedule BV-1, PWD Statement 7. The overall capital program budget for FY 2025 to FY 2030 is also higher than previously estimated. *See*, Schedule FP-1.

- Recent collection rates remain lower than the long-term historical average. Collection rates continue to trend downward with a 1.56% reduction in the billing year collection rate, as summarized in Schedule FP-1. This lower collection rate (delay in payments) puts pressure on the Department's revenues and rates.

- In FY 2026, without rate relief, the Department will not be able to pay its bills in FY 2026 without another sizeable withdrawal (of about $43.4 million) from cash reserves to meet obligations and minimum debt service coverage requirements. A sizeable withdrawal in FY 2026, without rate relief and deposits in the RSF, would push the RSF below $77 million and could result in a credit-rating downgrade.

- Without rate relief in FY 2026 and FY 2027, the Department will not be able to pay its bills in FY 2027. Sizeable withdrawals in FY 2026 and FY 2027, without rate relief and deposits in the RSF, would deplete the RSF and could result in a downgrade. In addition, for FY 2027, senior debt coverage would fall below 1.20x, total debt coverage would fall below 1.0x and the Department would fail the 90% Test.

Q19. PLEASE DESCRIBE CHANGES IN THE DEPARTMENT'S FINANCIAL POSITION SINCE THE 2023 GENERAL RATE CASE AND HOW THE RATE FILING ADDRESSES THESE CHANGES.

A19. The Department's financial condition is under stress for the reasons summarized above. The 2023 Rate Determination was projected to be sufficient to generate total system revenue of $872 million in FY 2024 and total system revenue of $953 million in FY 2025.

In fact, PWD generated total system revenue of only $837 million in FY 2024. Please also note that FY 2025 (as of December 31, 2024) mid-year projections are well below projected revenue levels assumed in the 2023 Rate Determination. Concurrently, costs and expenses (revenue requirements) have increased above the level of authorized revenues.

The financial quandary presented is obvious. The Department is recovering (collecting) lower operating revenues than assumed in the 2023 Rate Determination ($34.3 million lower in FY 2024 and an estimated $36.8 million lower in FY 2025) while experiencing an increased level of expenditures in a variety of cost areas as explained above. The decline in revenues is being driven by lower billed volumes (i.e., reduced consumption), reduced collections, and increased TAP credits. Overall, this means that PWD is facing financial difficulties in FY 2025 which (absent additional revenues) will continue during FY 2026 and FY 2027. The only clear path forward is to request approval for additional operating revenues. The demonstrated need for rate relief is shown in Table C-1A in Schedule BV-1, PWD Statement 7. PWD Statements 3, 4A and 4B also explain why increased rates are needed to pay operating and maintenance expenses, meet regulatory requirements and to support needed capital improvements. The need to improve PWD's financial reserves and metrics is described in this testimony and PWD Statement 2B.

Q20. PLEASE SPECIFICALLY DESCRIBE SOME OF THE MATERIAL CHANGES IN PWD'S FINANCIAL POSITION ALLUDED TO IN THE PRIOR RESPONSE.

A20. The Department has experienced cost increases that it cannot continue to absorb without additional revenues if the Department is going to maintain its financial status and current favorable bond ratings.

<u>Fiscal Year 2024</u>

In FY 2024, the Department experienced the following:

- Revenue results for FY 2024 were lower than projections, as summarized in Schedule FP-1. That performance reflects the impact of increased TAP enrollment and associated credits, lower collections and reduced billed volume when compared to prior projections.

- Regarding reduced billed volume, the Department has experienced declines in consumption. The typical consumption for residential customers has decreased from 450 cubic feet to 430 cubic feet of water. In addition, the typical consumption for small commercial customers has decreased from 600 cubic feet to 550 cubic feet of water. See PWD Statement 6 for more information.

- Expenses for FY 2024 were lower than projections, as summarized in Schedule FP-1. That performance reflects the impact of lower workforce, services and electricity/natural gas costs when compared to prior projections.

- The impact of the lower revenue in FY 2024 was largely offset by the lower expenses experienced in FY 2024. But, even with the offsets, the Department needed to withdraw **$8.2 million** from the RSF to achieve 1.22x senior debt service coverage, which was below the projected 1.25x reflected in the 2023 Rate Determination. See Schedule FP-1.

<u>Notable Impacts in Fiscal Year 2025</u>

In FY 2025, the Department is experiencing and has experienced:

- **Decreased Revenues.** Updated projections point to lower revenue when compared to prior projections, as summarized in Schedule FP-1.

- **Lower Collection Rates**. Recent collection rates remain lower than the historic average. This lower collection rate (delay in payments) impedes the Department's ability to recover sufficient revenues under current rates.

- **Increasing Costs**. During FY 2025, the Department is facing higher operating costs. Schedule FP-1; Table C-1A in Schedule BV-1. Costs in several key areas are rising faster than previously anticipated (e.g., labor, services, materials/equipment, power, etc.). Chronic maintenance requirements for aging infrastructure in combination with necessary facility additions/replacements also contribute to the need for rate relief.

The above-described increases were partially offset by decreases in other areas of expense. But, even with the offsets, the Department is facing some **$81 million** in increased expenses in FY 2025. Schedule FP-1. The result of the foregoing is a lower debt service coverage than previously projected even with the planned (increased) withdrawal of funds from the RSF. See Table C-1 and C-1A in Schedule BV-1; Schedule FP-1. Please note that a withdrawal of $12.2 million from RSF in 2025 will bring the balance to roughly $120 million which is $15 million below the approved target of $135 million.

- **Reserves and Metrics**: Historically, the Department has made transfers from the RSF to mitigate revenue increases and maintain debt service coverage (because the Revenue Fund is included as pledged security for the revenue bonds). With the FY 2025 RSF withdrawal the Department's financial reserves will fall to their lowest point since at least 2017. Schedule FP-1.

Q21. WHY IS THE DEPARTMENT'S FINANCIAL CONDITION RELEVANT TO THE CURRENT RATE CASE?

A21. The Department needs increased additional revenues so that it will have additional cash-in-hand to pay its bills when due, be prepared to meet increasing regulatory requirements and to maintain efficient access to the capital markets at reasonable cost.

As explained above, the Department's projected FY 2025 financial results, as compared to the prior rate case projections, demonstrate a pattern of decreased revenues below prior rate case levels which are projected to continue into FY 2026, FY 2027 and beyond. Absent rate relief, the Department's financial results will continue to deteriorate, and financial reserves will be depleted over time. It bears emphasis that the Department cannot continue to run a deficit with rates not high enough to meet revenue requirements (as is the case in FY 2025) and using limited financial reserves to make up the difference. The Department has no choice but to request that rates be raised. As always, the Department’s financial condition is a major concern to rating agencies and investors. Its financial condition is particularly concerning for FY 2026 and FY 2027, given the Department’s needs to meet its rate covenants (e.g., 90% Test, debt service coverage) and to finance its sizeable and increasing Capital Improvement Program. As noted above, meeting day-to-day operating requirements is also a critical concern.

V. RATE MAKING AND FINANCIAL REQUIREMENTS

Q22. PLEASE DESCRIBE THE REQUIREMENTS OF THE HOME RULE CHARTER WITH RESPECT TO RATE MAKING.

A22. The Philadelphia Home Rule Charter (“Charter”) was amended in 2012 to allow City Council to establish, by ordinance (hereinafter, the “Rate Ordinance”), (1) an independent ratemaking body responsible for fixing and regulating rates and charges for water, wastewater and stormwater services (now known as the Philadelphia Water, Sewer and Storm Water Rate Board, and herein referred to as the “Board” or “Rate Board”), and (2) open and transparent processes and procedures for fixing and regulating those rates and charges, including ratemaking standards. The Charter requires that the Board fix and regulate rates and charges for supplying water, wastewater, and stormwater services in accordance with standards established by City Council. Such standards must enable the City to yield from rates and charges an amount at least equal to operating expense and debt service requirements on any debt incurred or about to be incurred for water supply, sewage and sewage disposal purposes. It further provides that in computing operating expenses, there shall be a proportionate charge for all services performed for the Department by all officers, departments, boards or commissions of the City. (See Charter, Section 5-801.)

Q23. PLEASE SUMMARIZE THE STANDARDS OF THE RATE ORDINANCE WITH REGARD TO ESTABLISHING NEW RATES AND CHARGES.

A23. The Rate Ordinance was enacted and became effective on January 20, 2014, and its substantive provisions are set forth as part of Section 13-101 of the Philadelphia Code. Section 13-101(2) of the Philadelphia Code requires the Department to develop a comprehensive plan ("Financial Stability Plan" or "Financial Plan") in which the Department forecasts capital and operating costs and expenses and corresponding revenue requirements. The Financial Stability Plan must: (i) forecast capital and operating costs and expenses and corresponding revenue requirements; (ii) identify the strengths and challenges to the Department's overall financial status including the Water Department's credit ratings, planned and actual debt service coverage, capital and operating reserves and utility service benchmarks; and (iii) compare PWD to similar agencies in peer cities in the United States. The Department must submit an updated Financial Stability Plan to City Council every four years and update the plan prior to proposing revisions in rates and charges. The Department's current Financial Plan is attached to our testimony as Schedule FP-1.

Section 13-101(4) of the Philadelphia Code, entitled "Standards for Rates and Charges," contains the ratemaking standards established by City Council and applicable to this rate proceeding. This provision, among other things, requires the Board to establish rates and charges sufficient to fund budgeted operating expense and annual debt service obligations from current revenues and to comply with rate covenants and the debt service reserve requirement. It further requires that the rates and charges be developed in accordance with sound utility rate making practices and consistent with industry standards for water, wastewater and stormwater utilities (including standards published by the American Water Works Association and the Water Environmental Federation).

In addition, Section 13-101(4)(b)(i) of the Philadelphia Code requires the Board to: (i) fully consider the Water Department's Financial Plan, (ii) determine the extent to which current revenue should fund capital expenditures and the minimum level of reserves to be maintained during the rate period based on all relevant information presented including, but not limited to, peer utility practices, best management practices and projected impacts on customer rates, and (iii) set forth such determinations in the Board's written report.

Q24. WHAT ADDITIONAL REQUIREMENTS ARE APPLICABLE TO RATE MAKING?

A24. In the 1989 General Bond Ordinance, pursuant to which the City issues its water and wastewater revenue bonds to support the System, the City covenanted with the bondholders that it will impose, charge and collect rates and charges in each Fiscal Year sufficient to produce or yield annually: (1) Net Revenues (as defined in the 1989 General Bond Ordinance) which are at least 1.20 times the Debt Service Requirements (as defined in the 1989 General Bond Ordinance) for such Fiscal Year, excluding the amounts required for subordinated bonds (as defined in the 1989 General Bond Ordinance); (2) Net Revenues, excluding therefrom any amounts transferred from the Rate Stabilization Fund (as defined in the 1989 General Bond Ordinance) to the Revenue Fund (as defined in the 1989 General Bond Ordinance) in, or as of the end of, such Fiscal Year, which will be equal to at least 0.90 times Debt Service Requirements for such Fiscal Year (excluding principal and interest payments in respect of Subordinated Bonds and transfers from the Rate Stabilization Fund); and (3) Net Revenues in each fiscal year must be equal to 1.00 times (A) annual Debt Service Requirements for such fiscal year, including the amounts required for subordinated bonds, (B) annual amounts required to be deposited in the Debt Reserve Account (as defined in the 1989 General Bond Ordinance), (C) the annual principal or redemption price of interest on General Obligation Bonds (as defined in the 1989 General Bond Ordinance) payable, (D) the annual Debt Service Requirements on Interim Debt (as defined in the 1989 General Bond Ordinance), and (E) the annual amount of the deposit to the Capital Account (as defined in the 1989 General Bond Ordinance), less amounts transferred from the Residual Fund (as defined in the 1989 General Bond Ordinance) to the Capital Account. In this testimony, these covenants are referred to collectively as the "Rate Covenants."

A failure by the Department (City) to comply with any provision of the 1989 General Bond Ordinance, its revenue bonds, including with any Rate Covenant constitutes an event of default as defined under the 1989 General Bond Ordinance (a "Covenant Default"). In the event of a Covenant Default, a bondholder of any of the City's water and wastewater revenue bonds will be entitled to all the remedies provided under the First-Class City Revenue Bond Act (the "Act"). Upon such event, the holders of 25% in aggregate principal amount of the affected series of the Department's revenue bonds may appoint a trustee to represent such bondholders to exercise remedies. Such trustee may, and upon the written request of the holders of 25% in aggregate principal amount of such revenue bonds must, sue the City at law or in equity to enforce the rights of the aforesaid bondholders including, among others, their right to require the City to impose and collect sufficient rates, as required under the 1989 General Bond Ordinance, if the City has failed to do so**.** Additional information on the Bond Covenants is provided in the Bond Counsel Memorandum attached to our testimony as Schedule FP-2.

VI. FINANCIAL STABILITY PLAN

Q25. HAS THE DEPARTMENT PREPARED A FINANCIAL STABILITY PLAN AS REQUIRED BY THE RATE ORDINANCE?

A25. Yes, the Department updated its Financial Plan prior to initiating this rate proceeding. The updated Financial Plan is attached to our testimony as Schedule FP-1.

Q26. PLEASE DESCRIBE THE CONTENTS OF DEPARTMENT'S FINANCIAL PLAN.

A26. The Financial Plan contains four major sections which provide the information required by the Rate Ordinance.

The first section provides an operational overview. It presents the Department's financial performance in FY 2024. It also describes the revised projected financial results for FY 2025. It finally describes the projected expenses for FY 2026 and FY 2027.

The second section summarizes the Department's financial goals and key policies with respect to capital funding from current revenues, debt service coverage, debt issuance and cash revenues. It also describes the Department's pursuit of funding to support the CIP.

The third section of the Financial Plan is a peer utility review and includes a comparison of credit ratings, financial metrics for revenue and debt, debt service coverage, reserve levels, debt to revenue ratios, affordability and asset conditions.

The last major sections of the Financial Plan present the current Five-Year Plan for the Department (Appendix I).

Q27. PLEASE DESCRIBE THE COMPONENTS OF THE FINANCIAL PLAN.

A27. The Department is requesting that the Rate Board affirm its approval of the specific financial metrics authorized in the 2018 general rate proceeding. These metrics are incorporated in the Department's updated Financial Plan and include the following: (i) targeting pay-go funding of at least 20% of the Department's capital program from current revenues; (ii) targeting a Senior Debt Service Coverage Ratio of 1.30x; and (iii) maintaining $150 million as the combined target for cash reserves in the Rate Stabilization and Residual Funds. As discussed below, the Department realizes that it may not meet all of these above targets during the Rate Period.

Q28. WHY IS PWD REQUESTING THAT THE RATE BOARD REAFFIRM THE FINANCIAL METRICS APPROVED IN THE 2018 RATE DETERMINATION?

A28. As discussed during the 2018 general rate proceeding, the rating agency reports have noted the Department's relatively large capital improvement plan and heavy reliance on long-term debt to fund its capital program, as well as the Department's relatively low coverage levels compared to its peers. The fundamental ratemaking philosophy for most financially stable municipal utilities is to provide safe and reliable service at rates that recover all current costs, plus a margin in excess of current costs. This margin, also referred to as coverage, is a municipal utility's only real alternative to issuing debt to fund a portion of the capital program costs. Using current revenues to fund capital expenditures is necessary to improve debt service coverage to industry standards and is just and reasonable as a principle of both finance and ratemaking. From both an operational and a credit rating perspective it is essential for the Department to sustain debt service coverage levels significantly above the minimum levels required by the Rate Covenants to provide rating agencies and bondholders comfort that the Department is not continually operating at the edge of an event that would cause a violation of the Rate Covenants.

As also noted in the memorandum from bond counsel, the 1989 General Bond Ordinance dictates the priority of payment, and the flow of revenues collected from rates in and out of the funds and accounts of the Water Fund. There is never a guarantee that the Department's revenues will be sufficient in the future to cover the revenue requirements used to establish rates and charges. Given the required flow of funds under the General Bond Ordinance, any shortfall will impact the amount of revenue that can be used to fund the Capital Improvement Program before it impacts any other element of the revenue requirement.

Maintaining adequate cash reserves in funds such as the Department's Rate Stabilization and Residual Funds is a standard element of ratemaking for municipal utilities. This allows a municipal utility to deal with contingencies and help such utilities demonstrate the financial stability necessary to achieve and maintain good credit rating. Additional information in support of these financial policies regarding maintaining adequate cash reserves and meeting targeted financial metrics is provided in the memorandum from the

Department's financial advisors, which is attached their testimony (PWD Statement 2B) as Schedule FA-1.

Reaffirming these financial metrics (20% pay-go target, 1.30 times Senior Debt Service Coverage Ratio, and maintaining a $150 million combined balance target in the Rate Stabilization and Residual Funds) not only memorializes these goals along with resulting rate increases, but also assists the Department with its persuasion of the rating agencies to maintain or improve the Department's credit ratings.

That being said, due to current circumstances, the Department proposes to gradually transition to meeting certain financial targets during the Rate Period.

First, for the Rate Period, the Department is forgoing the target for funding of the capital program from current revenues. Schedule FP-1. PWD will adjust coverage to balance the Capital Program funding from current revenues target of 20%. Over the next few years, PWD is not projected to meet its goal of funding at least 20% of its capital program from current revenues. See Table C-2 in Schedule BV-1. Transfers to the Capital Account must increase, over time, to achieve the 20% goal. Schedule FP-1.

Second, the Department is deferring the Cash Reserve goals for the Rate Period. That is, PWD's projected RSF balance is less than the target $135 million RSF balance in FY 2026 and meets the $135 million approved target by the end of the Rate Period (FY 2027). See, Table C-1 in Schedule BV-1; Schedule FP-1. The RSF serves as the Department's primary source of liquidity and provides protection to ratepayers and bondholders.

Third, the Department is requesting that proposed rates be established based on senior debt service coverage of 1.27 times for FY 2026 and 1.30 times for FY 2027, which represents a transition from the current 1.21 times in FY 2025 to the approved target of 1.30 times by the end of the Rate Period. See Tables C-1 and C-2 in Schedule BV-1. PWD will maintain the goal of 1.30 times debt service coverage for revenue bonds. The target of 1.30 times recognizes that, from both an operational and a credit rating perspective, it is essential for the Department to sustain debt service coverage levels above the minimum levels required by the Rate Covenants to provide a hedge against unanticipated cost increases or revenue losses, as well as to provide bondholders comfort that the Department will meet its covenants with investors.

Q29. DOES THE DEPARTMENT'S FINANCIAL PLAN ADDRESS THE NECESSITY OF TARGETING REASONABLE FINANCIAL METRICS AND IMPROVING ITS CURRENT CREDIT RATINGS OVER TIME?

A29. Yes. The Department's updated Financial Plan is designed to, among other things, maintain (and improve over time) the Department's current credit rating. The most recent credit ratings, received in October 2024, in connection with the issuance of the City's Water and Wastewater Revenue Bonds, Series 2024C are as follows: Moody's, A1, "stable" outlook; S&P, A+, "stable" outlook; and Fitch, A+, "stable" outlook. The most recent rating reports are attached as Schedule FP-3.

Credit ratings are important because the Department, like most utilities, is required to make capital infrastructure improvements each year for new and replacement assets. As reflected in the Department's Financial Plan, the Department's funding plan for capital costs includes the debt issuance of $400 million in FY 2027. Credit ratings are a critical component in determining the cost of debt as the ratings signal the Department's ability and willingness to meet financial obligations, notably including the repayment of its debt in full and on time. A downgrade of the credit ratings would result in an increase in the Department's borrowing costs and necessitate higher rates over time.

Q30. PLEASE DESCRIBE WHAT MAY HAPPEN TO THE DEPARTMENT'S CREDIT RATING IN THE ABSENCE OF PROPOSED RATE RELIEF.

A30. Stated plainly, in light of the financial difficulties faced by PWD in FY 2025, the Department is concerned that an insufficient level of rate relief for the Rate Period will be met with a negative reaction by the credit rating agencies. Such a reaction could take the form of a credit rating downgrade or market access deterioration. Municipal credit ratings are generally slow to rise and, often go down quickly. Thus, it is critical to assure rating agencies and investors of the long-term commitment to the cost recovery and stability of the Department's finances.

Bond investors may also react negatively to any failure to support needed rate relief. While PWD has been able to maintain access at low-cost borrowing levels for the present, there is certainly no guarantee that this will continue without rate relief. And given the frequency of the Department's borrowing needs, it is critical to maintain confidence in the rate setting process.

While the Rate Board's rate support historically has been constructive in allowing the Department to maintain stable finances, additional operating revenues are needed for FY 2026 and FY 2027. PWD believes that withholding appropriate rate relief will be met with a negative reaction. These reactions include potential credit ratings downgrades and capital markets access deterioration.

VII. PROPOSED TARIFF CHANGES

Q31. WHAT REVISIONS TO THE DEPARTMENT'S TARIFF ARE BEING PROPOSED IN THIS CASE?

A31. The proposed rates and charges are in PWD Exhibits 3A and 3C, and redline versions are provided as PWD Exhibits 3B and 3D. The proposed rates and charges changes are further discussed in Black & Veatch's testimony, PWD Statement 7.

Please note that those proposed rates and charges include (but are not limited to) the Department's proposed changes in Sections 2 (Water), 3 (Sewer), 4 (Stormwater), 5 (Charity Rates Administration), 6 (Miscellaneous Water Fees), 7 (Miscellaneous Sewer Fees), 8 (Stormwater Miscellaneous Plan Review), 9 (Fire Service Connection), and 10.1 (Computation of TAP-R). A contemporaneous 2025 TAP-R filing will address Section 10 proposed changes in rates and charges.

In addition, PWD is proposing to update various miscellaneous rates and charges, as summarized in Schedule BV-3 and as discussed in PWD Statement 7. The proposed miscellaneous charges are detailed in Tables M-1 and M-2, in Schedule BV-3. Please refer to Section 3, Section 4, Section 6, Section 7, and Section 8 of PWD Exhibit 3 for additional information regarding tariff updates of various miscellaneous rates and charges.

We would note that PWD and WRB plan to make the administration of the charity discount program more efficient for the customer and the City by removing the requirements for the charity discount application from PWD's Rates and Charges and moving the program administration to the PWD/WRB joint Regulations. This is explained in PWD Statement 5 and Schedule SMC-2 (Draft Charity Rate Regulations).

At this time, PWD is not proposing any language and other "housekeeping" changes. We are however, presenting Schedule FP-6 in case the need arises during the course of this proceeding for such changes. If such changes are needed, they will also be shown on Schedule FP-6, PWD Exhibits 3A and 3C, and in redline on PWD Exhibits 3B and 3D.

VIII. PRIOR RATE PROCEEDINGS

Q32. PLEASE SUMMARIZE RECENT CHANGES IN PWD RATES AND CHARGES APPROVED BY THE RATE BOARD.

A32. The present proceeding is the sixth general rate proceeding before the Rate Board. As described in Schedule FP-7, the last general rate increases approved by the Rate Board in the 2023 rate case proceeding were 9.64% and 8.16% in FY 2024 and FY 2025, respectively.

However, as we have explained, the Department has experienced and continues to recover lower operating revenues and a lower collection rate — compared with 2023 rate case projections for FY 2025.

To make a course correction, the Department needs higher rates (additional revenues). The Department is requesting annual revenue increases to generate approximately $73.630 million in FY 2026 (a 10.00% increase to base rates) and an additional $58.858 million in

FY 2027 (a 7.30% increase to base rates) with proposed effective dates of September 1, 2025, and September 1, 2026, respectively.

IX. CONCLUSION

Q33. DOES THIS CONCLUDE THE DIRECT TESTIMONY OF THIS PANEL?

A33. Yes, it does.

Schedule LY-1

LAWRENCE YANGALAY
lawrence.yangalay@phila.gov

Professional experiences
Over twenty years of professional experiences in auditing, accounting, consultancy, and financial management. Highly analytical and result oriented, an excellent team player and interact at any level: social, economic, political and educational.

Assistant Commissioner/Financial Services Supervisor/Manager, City of Philadelphia, Phila, PA, USA 2017 – Present

- Direct and Coordinate payroll verification; preparation, analysis and reporting of the organization's $800m operating budget across six departments; grants management work, revenue and rate analysis, bank and fund reconciliations and financial control oversight. Advise and coordinate with executive staff and departmental managers on a wide range of financial matters and provide leadership for financial staff engaged in policy development.
- Assign and review staff structure, duties and priorities for the attainment of organization's short and long-term goals and objectives. Supervise costing and billing of wholesale customers; and collection, analysis and reporting of performance metrics.
- Supervise the preparation of the quarterly budget update reports and the annual operating budget.
- Participate in preparing documents for budget hearings, bond offering and rate case.

Budget Officer I and II, City of Philadelphia, Philadelphia, PA, United States of America 2011 – 2017

- Managed the Streets Department's $240m capital budget, which involves preparing the capital budget, profiling grant funds from federal and state sources, setting up encumbrances for capital projects using grant and City funds and monitoring federal, state and the City's capital fund balances.
- Reviewed and approved nearly $450m annual disbursements involving federal and state grant and City funds and supervised four staffs (three accounts payable clerks and one administrative specialist).
- Supervised the preparation of the quarterly budget update reports and assisted in the preparation of the operating budget.

Auditor I and II, City of Philadelphia, Philadelphia, PA, United States of America 2006 – 2011

- Reviewed and evaluated internal controls over financial reporting to ensure that information generated from said systems are accurate and presented fairly in accordance with applicable standards.
- Reviewed Federal and State grant compliance requirements (including laws and regulations, administrative procedures, contract/grant terms) and evaluated whether departments or programs complied with these requirements.
- Reviewed assigned accounts of the City's CAFR and SFA to determine whether the accounts were presented in accordance with applicable standards and recommended adjustments or corrections where necessary. Was assigned accounts with revenue/expenditure of between $10m and $700m.

LAWRENCE YANGALAY

Accountant, City of Philadelphia, Philadelphia, PA, United States of America 2005 – 2006

- Reviewed and reconciled weekly payroll information from FAMIS and the Payroll System.
- Prepared financial statements of ten funds with total annual revenue of over $250m and managed the employees' vending machine funds.

Consultant, African Cultural Alliance of North America, Philadelphia, PA, USA 2004 – 2008

- Provided general and financial consultancy, which included accounting, financial management, staff recruitment and grant proposal writing.
- Assisted in increasing revenue from under $0.2m in 2004 to over $0.75m by 2007.
- Computerized the accounting system in QuickBooks and developed the organization financial management policy.

Finance Officer, National Drug Service (NDS), Liberia 1993 – 2003

- Managed all aspect of a L$225m ($3.5m) budget. Direct responsibilities included: developing the annual and program budgets, preparing financial statements, preparing grant expenditure report, ensuring compliance with grant financial requirements and assisting with writing grant proposals.
- Supervised ten staffs in accounting and data processing departments and one community pharmacy. Participated in the formulation of the national drug-cost-recovery policy and served on the national committees that evaluated tenders for the procurement of pharmaceuticals for Liberia. Participated in training health facilities in fiscal management and was member of a team contracted to manage the nation's largest hospital for two years during which time fee-for-service intake and patient load doubled.

Education/Training

- Master in Management with concentration in Public Administration, Wilmington University, USA.
- Master in Accounting, Ohio State University, USA.
- Bachelor of Business Administration with concentration in Accounting, University of Liberia
- Fellow, ACCA (Inactive)

Larry Rich
email:Lawrence.Rich@phila.gov

EDUCATION:

Drexel University Philadelphia, PA
Bachelor of Science in Business Administration June 2009

WORK EXPERIENCE:

City of Philadelphia, Water Department Philadelphia, PA

Assistant Deputy Commissioner, Finance December 2023 – Present

- Assist the Deputy Commissioner of Finance with overseeing the financial planning and analysis for the Department
- Ensure that civil service requirements, state and federal laws and regulations are followed
- Oversee the Financial Analysis and Rates Unit that Includes Budget, Grants, Cash Management, Accounts Payable, and Wholesale functions
- Ensure compliance with financial procedures

Utility Financial Services Manager March 2022 – December 2023

- Manage Financial Analysis and Rates Unit that includes Budget, Grants and Wholesale functions
- Prepare and submit Department's Annual Comprehensive Financial Report
- Research and apply for various federal funding opportunities

Fiscal Officer April 2020 – March 2022

- Manage Budget Unit responsible for preparing the Department's yearly budget and required reports
- Manage Accounts Payable unit responsible for processing professional services, capital, and public works invoices
- Transitioned Accounts Payable processes from paper to SharePoint site which lead to improved invoice processing times
- Manage Wholesale Unit

Utility Financial Services Supervisor September 2019 – April 2020

- Supervise staff performing Wholesale functions
- Review and approve monthly and quarterly bills
- Review expiring wholesale contracts
- Review and submit surveys participated in by Department

City of Philadelphia, Division of Aviation Philadelphia, PA

Accounting Transactions Supervisor, Accounting Supervisor June 2016 – September 2019

- Supervise the Airport's Finance Unit, specifically the Accounts Receivable and Accounts Payable functions
- Produce detailed internal report on the Aviation Operating Fund
- Prepare Statistical Section of the Annual Comprehensive Financial Report
- Participate in quarterly financial presentations given to executive staff
- Track and analyze the Airport's Airline and Non-Airline Revenue
- Perform expenditure analysis for the Airport Operating Fund
- Submit monthly Sales & Use Tax return to the State of PA
- Review Staff Accountant's revenue adjustments for monthly close
- Review and approve invoices in the City's accounting system
- Submit information and documentation, as requested, to the City's Controller Office for the fiscal year-end audit

- Create various ad hoc reports as requested

Senior Accountant, Accountant December 2010 – June 2016

- Performed daily revenue receipt analysis
- Submitted revenue receipt and revenue adjustment entries to the City's accounting system
- Reconciled revenue in Airport and City financial systems on a monthly basis
- Performed monthly bank reconciliations
- Applied payments to invoices in the Airport's billing system
- Analyzed monthly activity-based self-reports submitted by customers
- Created monthly billings for concessions and landing fees
- Compiled various statistics for landing fees and concession activity and revenue
- Tracked and analyzed revenue for Passenger Facility Charges and Customer Facility Charges
- Submit monthly Use and Occupancy Tax returns to City
- Send real estate tax bills to tenants in Delaware County and Car Rental Agencies

Schedule PR-1

PATRICIA ROGALSKI
patricia.rogalski@phila.gov

PROFESSIONAL EXPERIENCE

City of Philadelphia **Jan 2016 - Present**

Philadelphia Water Department
Fiscal Analyst III April 2021 - Present
Fiscal Analyst II October 2019 – April 2021

- Responsible for the data analysis to support rates and charges as well as he administrative requirements for annual notices and filings
- Manage a team that performs, cash flows and reconciliation, invoice and payment tracking, capital project completion and various other financial analysis
- Manage the PennVest loan tracking, payment of invoices, reimbursements and debt schedules
- Responsible for the oversight of professional service contracts for the Finance Department
- Provide engineering consultants with data necessary to complete comprehensive cost or service reporting
- Responsible for tracking of all revenues and expenses for the Department and the Water Fund
- Assist in preparation of financial statements and annual budgeting process
- Responsible for tracking of costing for permits and consent order requirements
- Work with Financial Advisors for debt service schedules and analysis for financial transactions
- Serve as a liaison for the Department with disclosure council

Department of Revenue Jan 2016 – October 2019
Tax Analyst II, Settlement Group

- Manage the flow of settlement requests from Taxpayers and their representatives for satisfaction of judgments and liens for business taxes due to the City of Philadelphia.
- Review Taxpayer accounts for compliance of all business account filings and returns.
- Prepare settlement agreements of Municipal Court and Court of Common Pleas judgments and code enforcements in regard to business taxes. In addition, I provided settlement of real estate transfer tax liens and demolition liens.
- Execute and prepare law agreements and payments.
- The application of payments to proper tax liabilities and costs per the settlement and agreement with the Taxpayer. This includes the Statement of Litigated Claims in cases where part of the interest or penalty is abated.
- Filing the satisfaction of the judgments with the Court of Common Pleas and Municipal Courts
- Work with title companies, realtors, accountants and other Taxpayer representatives for settlement of their accounts.

Global Military Expert Consulting and Instruction, LLC, Philadelphia, PA 2012-2015

Company Controller

- Oversee daily company operations, including human resources, financial management, IT operations, vendor management, development of policies and procedures for DCAA compliance, creation of tracking systems for financial information and management of human resources

- Develop corporate-level policies and procedures, including human resources employee manual and procedures, code of ethics, travel and expense reimbursements, employment agreements and additional general policies.
- Handle all employee HR issues, including benefit questions, 401k plans, insurance coverage, corrective action policy and development and implementation and a vacation tracking system for 25 employees.
- Manage financial functions with responsibility for overseeing costs, maintaining cash flow, reconciling monthly expenses and creating budget versus actual reporting materials, submission of invoices to our contractors and accounts payable.
- Handle all payroll functions including processing of monthly payroll, establishment of time keeping system that allowed for simple access overseas, ensure withholding taxes were properly established for employees spread across the country in about 20 states, worker compensation and disability programs for multiple states and insurance for overseas employees.

3SISTERS SUSTAINABLE INVESTMENTS, LLC, Philadelphia, PA 2009 – 2012

Operating Officer

- Oversee daily company operations, including IT operations, telecommunications, contract negotiation and vendor management; develop policies and procedures for client account maintenance, in addition to buying and selling client positions within private pooled fund portfolios and verifying the accuracy of client positions with custodial institutions and client cash needs.
- Develop corporate-level policies and procedures, including human resources manual and procedures, investment advisory agreements, code of ethics, proxy voting, privacy and additional general policies.
- Handle all legal filings with the SEC and state regulators and serve as liaison between custodial and financial institutions for clients and internal corporate accounts.
- Manage financial functions, with responsibility for reducing costs, maintaining revenue flows, negotiating best contract pricing, creating budget versus actual reporting materials and maintenance of cash balances. Oversee regulatory compliance encompassing client agreements, loan contracts, and notes and equity positions for companies invested in.
- Developed more efficient and relevant reporting process for clients regarding portfolio positions and performance of private pooled funds.

TEMPLE UNIVERSITY HEALTH SYSTEM, Philadelphia, PA 2005 – 2009

Manager Business and Finance, Temple Transport Team

- Directed all aspects of financial, billing and general business activities. Manage monthly accounting closing, budget process, accounts payable management, capital purchasing, cash management, variance analysis, annual tax return and auditing.
- Coordinate closely with corporate finance department for all financial reporting, planning, auditing and communications; served on financial statement review and leadership committees and budget

and planning committee.

- Manage medical transportation billing process, with oversight for clinical record review, management of three clerical staff, development of HIPAA compliance program, vendor management/ billing, collections and accounts receivable.
- Successfully reduced billing days in account receivables and streamlined billing process
- Created revenue calculating system through spreadsheets and negotiated contracts with insurance companies for reimbursement rates.

UNIVERSITY CITY SCIENCE CENTER, Philadelphia, PA 1999 – 2005

Financial Analyst and Manager of Programs, Administration and Facilities

- Fulfilled multiple responsibilities, including cash management, monthly debt payments, bank draws for construction loans and management of annual company budget. Provided assistance with real estate transactions, including closings, refinancing and amendments to loans, accounts receivable maintenance and tenant reimbursements.
- Handled administration of insurance policies, wire transfers, KOZ tax exempt status, accounts payable and management of disbursements and files.
- Successfully increases collection of rental income through tracking and review of the invoice process.
- Directed programs as part of the Laurence A. Baiada Center for Entrepreneurship in Technology and held responsibility for business plan competition, annual venture capitalist event, entrepreneurial workshop series, senior design project and annual venture fair.
- Managed administrative functions, security system, facility operations, budgeting and bookkeeping; led marketing initiatives and definition and implementation of all policies and procedures and oversaw organization and set-up of companies entering center.

EDUCATION

TEMPLE UNIVERSITY, Philadelphia, PA

Master of Business Administration (MBA) in Finance

Bachelor of Science Degree in Secondary Math Education

FY24 Summary & Five-Year Financial Projection Plan

FEBRUARY 2025

PHILADELPHIA WATER DEPARTMENT

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PHILADELPHIA WATER DEPARTMENT

FY2024 Financial Performance

- Revenue and Expense Summary
- Debt Service and Capital Funding
- Cash Balances

FINANCIAL PERFORMANCE

FY 2024 Revenues

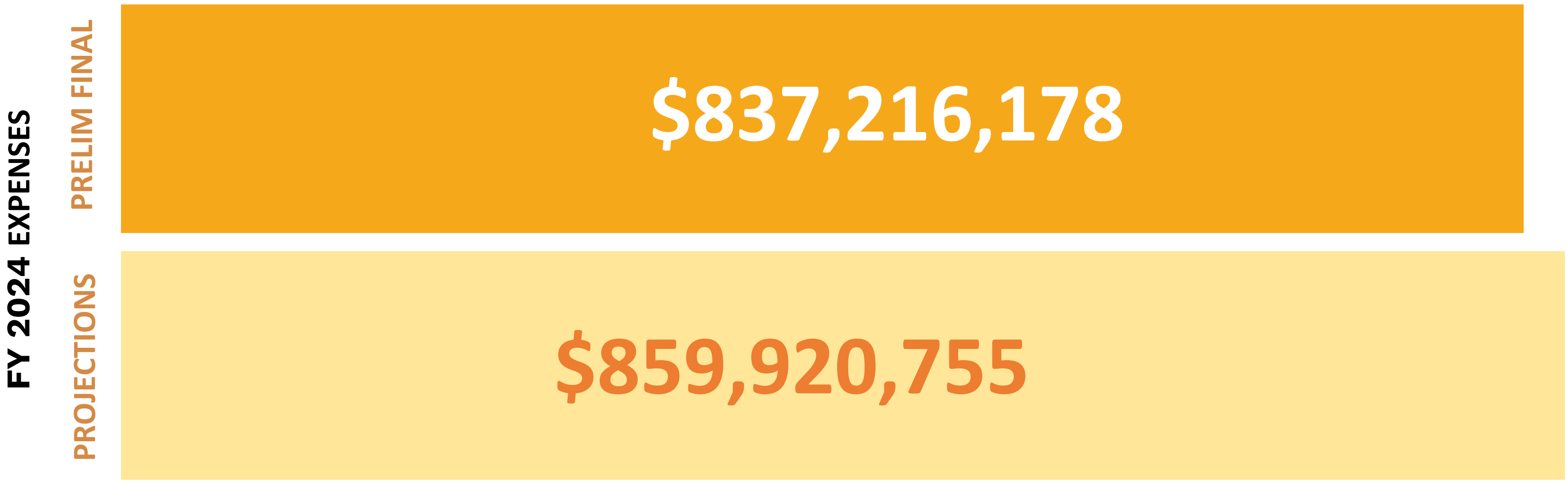
Revenue results were **lower than projections, with a -3.93% or -$34.3 million variance.** The performance reflects the impact of increased TAP enrollment and associated credits, lower collections and reduced billed volume when compared to prior projections.

Notes**: Revenue totals presented **exclude revenues from the Rate Stabilization Fund.
Based upon PWD's Financial Preliminary FY2024 results and the 2023 Rate Determination FY 2024 Combined Results.

FINANCIAL PERFORMANCE

FY 2024 Expenses

Total Expenses and Transfers were **lower than projections, with a -2.6% or $22.7 million variance.** The performance reflects the impact of lower workforce, services, electricity / natural gas and debt service costs.



Note*: Obligations exclude transfers to the Rate Stabilization Fund and liquidated encumbrances.*

FINANCIAL PERFORMANCE

FY 2024 Expense Detail Comparison

	EXPENSE CATEGORY	FY 2024 PROJECTION* ($000s)	FY 2024 PRELIMINARY FINAL ($000s)	VARIANCE
39%	Workforce Costs	$330,761	$322,599	-$(8,162)
21%	Services	187,723	179,693	-(8,030)
3%	Electricity and Gas	28,177	21,056	-(7,121)
4%	Materials, Equipment & Supplies	31,603	35,938	+4,336
6%	Chemicals	52,679	49,821	-(2,858)
<1%	Indemnities	4,604	6,626	+2,022
25%	Capital Program – Debt Service Payments	217,961	209,694	-(8,268)
<1%	General Fund Reimbursement	6,413	11,790	+5,377
	TOTAL	**$859,921**	**$837,216**	**-$(22,705)**

** Based upon 2023 Rate Determination for FY 2024 Combined Results.*

FINANCIAL PERFORMANCE

FY 2024 Debt Service & Capital Funding

Debt Service	FY24 Prelim Final	2024 Rate Design Target*	Minimum Requirement	Target
Revenue Bonds Debt Service Coverage	1.22x	1.25X	1.20x	1.30X
90% Test Coverage	1.18X	1.23X	0.90X	1.00X
Total Debt Service Coverage	1.06x	1.12X	1.10x	NA

Capital Funding	Total Transfer to Capital Account ($000)	Total Expenditures ($000)	Cash %	20% Goal Met?
FY 2024 Projections*	55,024	**513,964**	10.7	**No**
FY 2024 Preliminary Final	31,709	**372,639**	8.5	**No**

** Based upon 2023 Rate Determination for FY 2024 Combined Results.*

FINANCIAL PERFORMANCE

FY 2024 Rate Stabilization Fund Transfers & Liquidations

During FY 2024 PWD made a withdrawal from the rate stabilization fund of $8.2 million.

Transfers	FY24 Projection*	FY24 Prelim Final	Variance
Rate Stabilization Fund Withdrawal	($4.2M)	($8.2M)	($4.0M)

Liquidations	FY24 Projection*	FY24 Prelim Final	Variance
Liquidated Encumbrances	($38.8M)	($36.6M)	($2.2M)

** Based upon 2023 Rate Determination for FY 2024 Combined Results.*

FINANCIAL PERFORMANCE

FY 2024 Cash Balances

Cash Balances	Residual Fund	Rate Stabilization Fund	TOTAL Cash Reserves
FY 2024 Projection*	$20.27M	$133.7M	**$153.97M**
FY 2024 Prelim Final	$30.85M	$132.4M	**$163.25M**
Target	$15.0M	$135.0M	**$150.0M**

**Based upon 2023 Rate Determination for FY 2024 Combined Results.*

FINANCIAL PERFORMANCE

FY 2024 Incentive and Assistance Programs

Customer incentives and discounts totaled $82.4 million in FY 2024, an increase an increase of $11.6 million from $70.7 million in FY 2023. The TAP Program experienced the greatest growth in costs, attributed to an increase in participants.

Program	Program Type	FY 2024	FY 2023
SMIP(1) and GARP(2) (3)	Operating Expense	$28,856,978	$27,294,173
Phase in Program (CAP)(4)	Bill Reduction	565,155	943,040
Stormwater Credits(4)	Bill Reduction	22,948,279	21,672,545
Community Gardens	Bill Reduction	95	1,309
Tiered Assistance Program (TAP)(5)	Bill Reduction	18,803,906	9,039,377
Charity & School Discounts	Bill Reduction	6,977,289	7,235,825
Senior Citizen Discount	Bill Reduction	4,283,200	4,519,762
Total		$82,434,902	$70,706,031

(1) Stormwater Management Incentives Program.
(2) Grant and Greened Acres Retrofit Program.
(3) SMIP and GARP were partially funded with grants.
(4) Amounts are credits against certain customers' bills.
(5)TAP is a low-income assistance program commenced in July of 2017. It will reduce customers' bills and result in a reduction in revenue for the Water Department.

FY 2025 Financial Update

- Revenue and Expense Summary
- Debt Service and Capital Funding
- Cash Balances

PHILADELPHIA WATER DEPARTMENT

FINANCIAL PERFORMANCE

FY 2025 Revenues

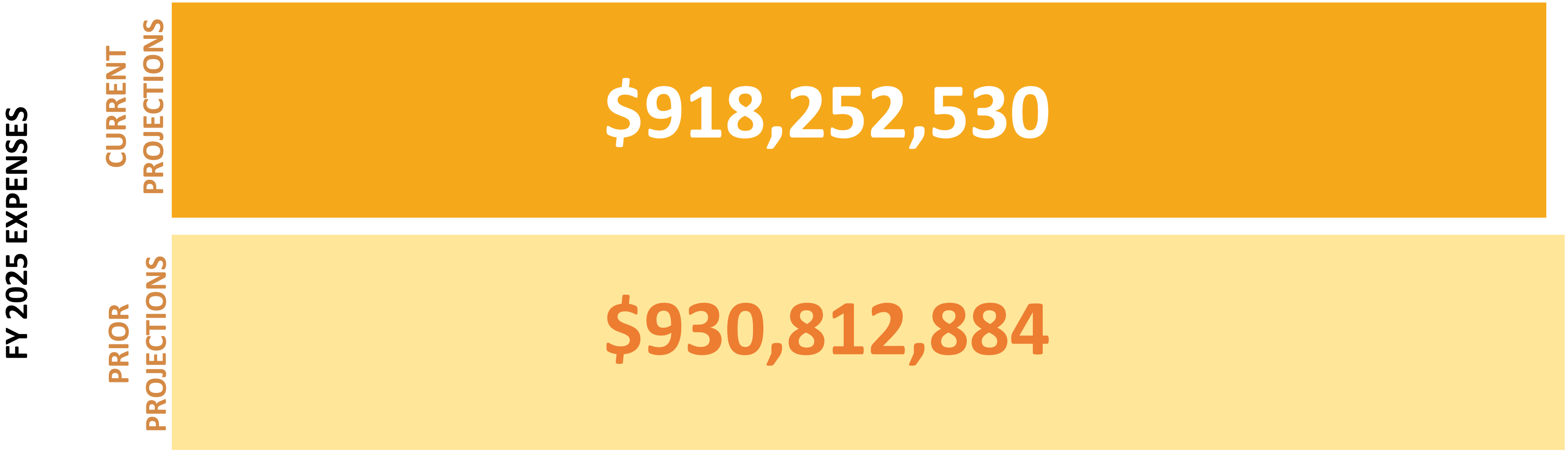
Updated projections point to **lower revenue when compared to prior projections, with a -3.86% or -$36.8 million variance.** The performance reflects the impact of increased TAP enrollment and associated customer credits, lower collection rates and lower billed volumes when compared with prior projections.

***Notes**: Revenue totals presented exclude revenues from the Rate Stabilization Fund.*
**Based upon the 2023 Rate Determination FY 2025 revenue estimates.*

FINANCIAL PERFORMANCE

FY 2025 Expenses

Updated projections point to lower total expenses and transfers**, with a -$12.6 million variance.** The performance reflects the impact of lower projected workforce, chemical and debt service costs.



Note*: Obligations exclude transfers to the Rate Stabilization Fund and liquidated encumbrances.*

FINANCIAL PERFORMANCE

FY 2025 Expense Detail Comparison

- The FY 2025 current expense projections are $12.6 million lower than the prior FY 2025 projections

EXPENSE CATEGORY	FY 2025 PRIOR PROJECTION ($000s)	FY 2025 CURRENT PROJECTION ($000s)	VARIANCE ($000S)
Workforce Costs	$351,735	$342,077	-$(9,658)
Services	190,424	200,583	+10,160
Electricity and Gas	28,177	27,321	-(855)
Materials, Equipment & Supplies	32,693	40,046	+7,353
Chemicals	65,227	54,805	-(10,421)
Indemnities	4,604	7,000	+2,396
Capital Program – Debt Service Payments	251,406	238,420	-(12,560)
Inter-Departmental Transfers	6,548	8,000	+1,452
TOTAL	**930,813**	**918,253**	**-(12,560)**

Based upon 2023 Rate Determination for FY 2024 Combined Results.
Expenses are not reduced by liquidated encumbrances.

FY2025 FINANCIAL UPDATE

FY 2025 Revised Rate Stabilization Fund Transfers & Liquidations

Transfers	FY 2025 Prior Projection*	FY 2025 Current Projection	Variance
Rate Stabilization Fund Withdrawal	($0.02M)	($12.2M)	$12.18M

Liquidations	FY 2025 Prior Projection*	FY 2025 Current Projection	Variance
Liquidated Encumbrances	($41.2M)	($41.4M)	$0.2M

**Based upon the 2023 Rate Determination FY 2025 revenue estimates.*

FY2025 FINANCIAL UPDATE

Cash Balances

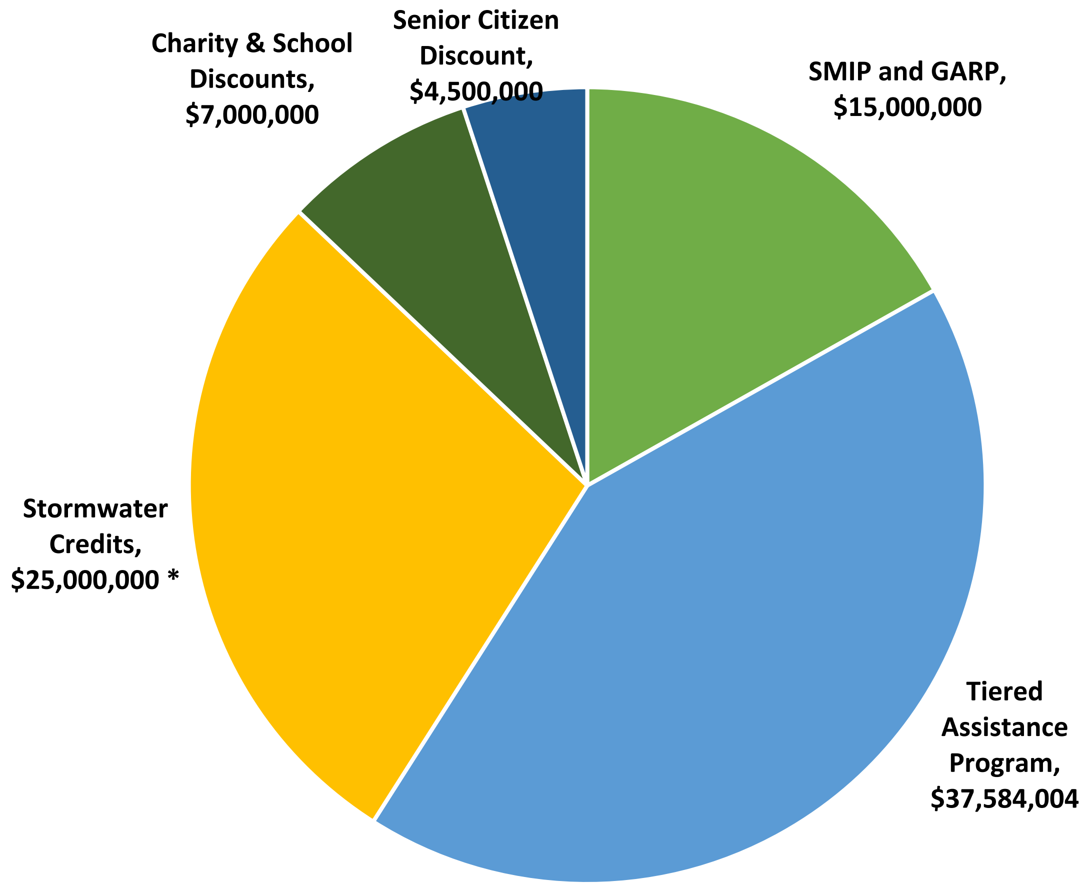
Cash Balances	Residual Fund	Rate Stabilization Fund	TOTAL Cash Reserves
FY 2025 Current Projection	$15.0M	$120.2M*	**$135.2M**
Target	$15.0M	$135.0M	**$150.0M**

*Includes projection of TAP-R revenues and TAP discounts. Updated projections estimate a $9.2M withdrawal in FY 2025 to cover increased enrollment and associated credits.

FY2025 FINANCIAL UPDATE

FY 2025 Estimated Cost of Assistance Programs

- For the total FY 2025 estimated cost of assistance programs, compliance requirements make up 45% (including Stormwater credits, SMIP and GARP), while various customer bill discounts account for 55%.



**FY 2025 Based upon updated projections.*
(1) Stormwater Management Incentives Program ("SMIP")
(2) Grant and Greened Acres Retrofit Program (GARP").
(3) SMIP and GARP were partially funded with grants.
(4) Stormwater credit amounts are credits against certain customers' bills.
(5)TAP is a low-income assistance program commenced in July of 2017. It will reduce customers' bills and result in a reduction in revenue for the Water Department.

Fiscal Year 2026 and 2027 Projections

FY2026 & FY2027 PROJECTIONS

FY 2026 Operating Cost Projections

Rising costs drive the need for revenue adjustments in FY 2026 & FY 2027. Operating costs are projected to **increase by $62.8 Million** from FY 2025 to FY 2026.

Total Projected Operating Costs*

- FY 2025 = **$ 918.3 Million**
- FY 2026 = **$ 981.0 Million**

EXPENSE CATEGORY	FY 2025 CURRENT PROJECTION ($000s)*	FY 2026 CURRENT PROJECTION ($000s)**
Workforce Costs	$342,077	$357,692
Services	200,583	217,420
Electricity and Gas	27,321	28,752
Materials, Equipment & Supplies	40,046	45,024
Chemicals	54,805	54,805
Indemnities	7,000	7,000
Capital Program – Debt Service Payments	238,420	258,292
Inter-Departmental Transfers	8,000	12,079
TOTAL	**918,253**	**981,065**

**Based on FY 2023 projections*
***Based upon updated projections.*
The operating cost projections are not reduced by liquidated encumbrances.

FY2026 & FY2027 PROJECTIONS

FY 2027 Operating Cost Projections

Operating costs are projected to **increase by $60.5 million** from FY 2026 to FY 2027*

Total Projected Operating Costs*

- FY 2026 = **$ 981.0 Million**
- FY 2027 = **$1,041.6 Million**

EXPENSE CATEGORY	FY 2026 CURRENT PROJECTION ($000s)	FY 2027 CURRENT PROJECTION ($000s
Workforce Costs	$357,692	$374,432
Services	217,420	234,218
Electricity and Gas	28,752	29,675
Materials, Equipment & Supplies	45,024	46,424
Chemicals	54,805	54,805
Indemnities	7,000	7,000
Capital Program – Debt Service Payments	258,292	282,588
Inter-Departmental Transfers	12,079	12,488
TOTAL	**981,065**	**1,041,629**

FY 2025 Based upon updated projections.
The operating cost projections are not reduced by liquidated encumbrances.

FY2026 & FY2027 PROJECTIONS

Rising costs drive the need for revenue adjustments in FY 2026 & FY 2027.

ADDITIONAL INCREMENTAL BASE RATE REVENUE REQUIRED
WATER & WASTEWATER

FY 2026
- $73.6 M (10% increase)

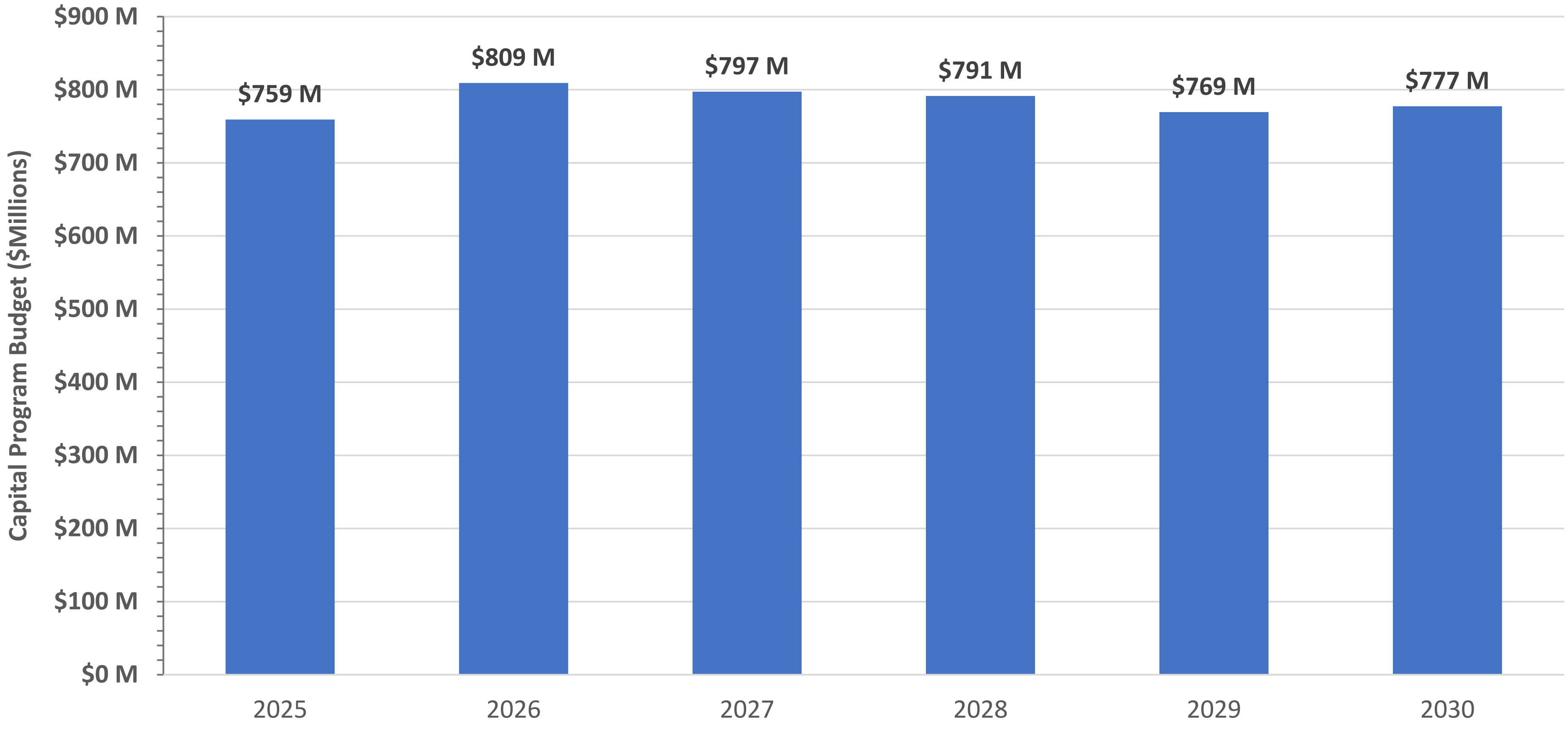
FY 2027
- $58.9 M (7.30% increase)

Source: Schedule BV-1: Table C-1A

FY2026 & FY2027 PROJECTIONS

Capital Improvement Plan

The FY 2025 to FY 2030 Capital Improvement Program is **approximately 8% higher** than previously estimated $3.98 Billion.



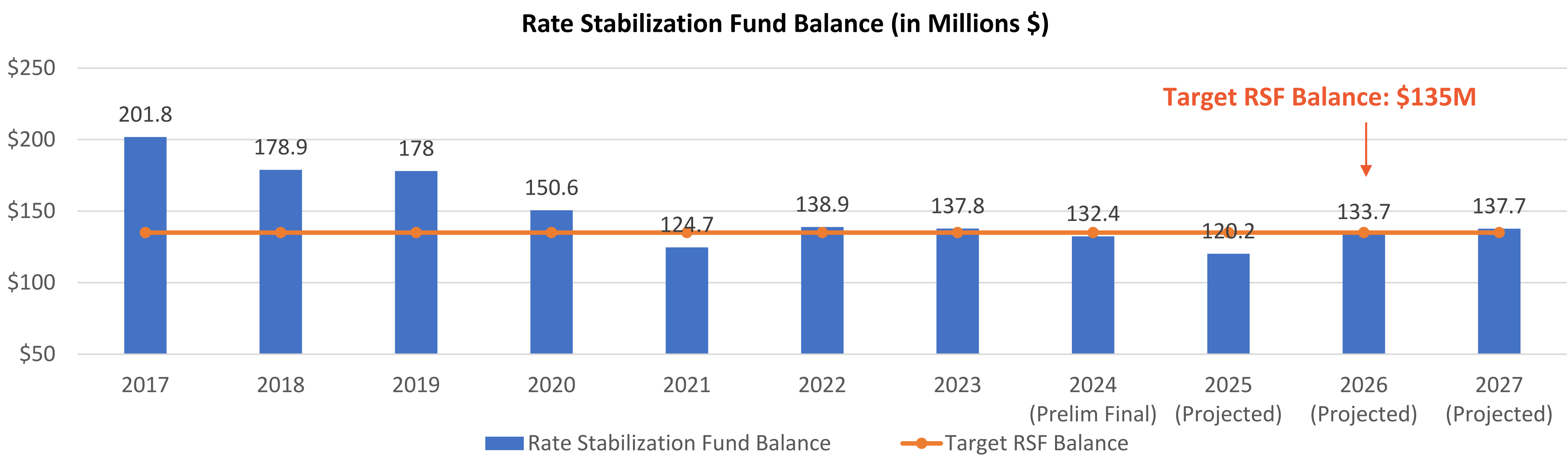
Total Cost

$4.70B

FY2026 & FY2027 PROJECTIONS

The utility cannot continue to mitigate increases using financial reserves.

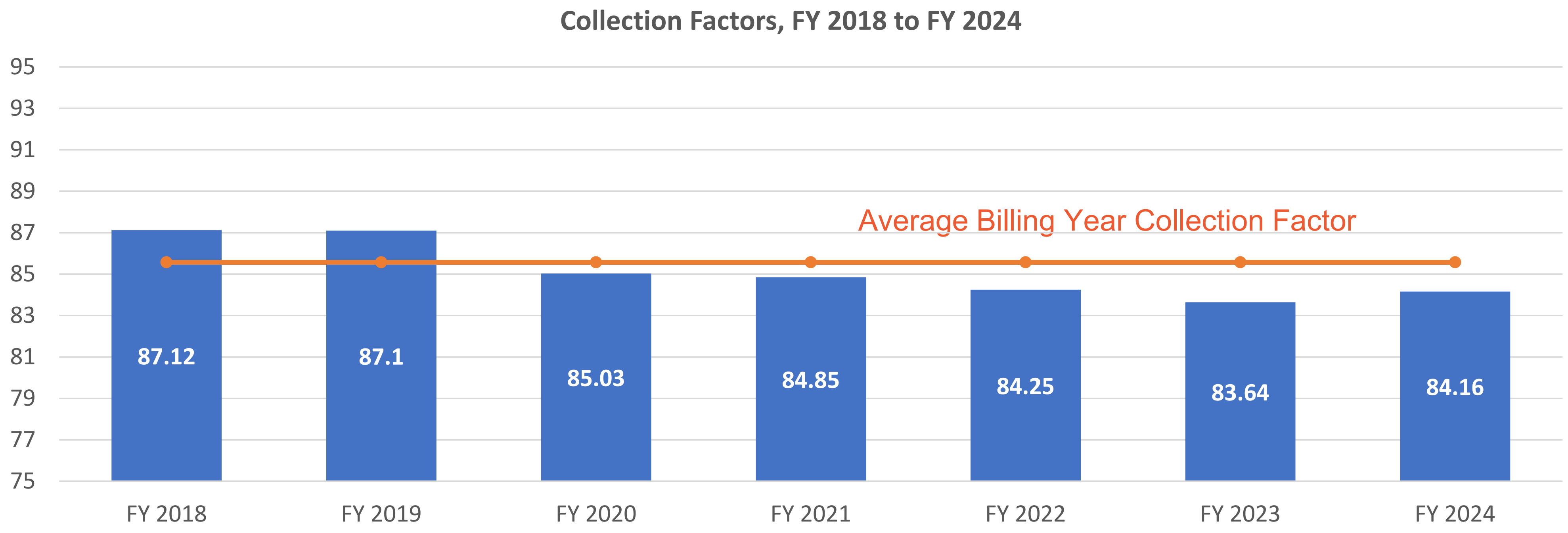
- Reserves have helped the utility manage revenue adjustments the past. Reserves are now at minimum levels and there is no guarantee they will be adequate to address future challenges without rate relief.
- PWD aims to set a target above the Board's current target of a $135 million balance in the Rate Stabilization Fund due to rising operating and capital costs
- The FY2024 estimated Rate Stabilization Balance of $132.4 M is lower than the target balance and is anticipated to be drawn down ($12.2M) to $120.2M in FY2025.



FY2026 & FY2027 PROJECTIONS

Recent collection rates have remained compressed.

Collection rates continue to **trend downward with a 1.56% reduction**[1] in the billing year collection rate. This lower collection rate (delay in payments) puts pressure on the Department's revenues and rates.



[1] *The FY 2022 to FY 2024 billing year collection factors are an average of 1.56% lower than the long-term historical average. Billing Year+1 and Billing Year+2 collection rates are not shown.*

FY2026 & FY2027 PROJECTIONS

FY 2026 Assistance Programs

The TAP program discounts are projected to total $39.9 million in FY 2026. This total excludes principal and penalty forgiveness.

From 2023 through 2024, $18.2 million of Principal and $0.694 million of Penalties have been forgiven [1,2,3]

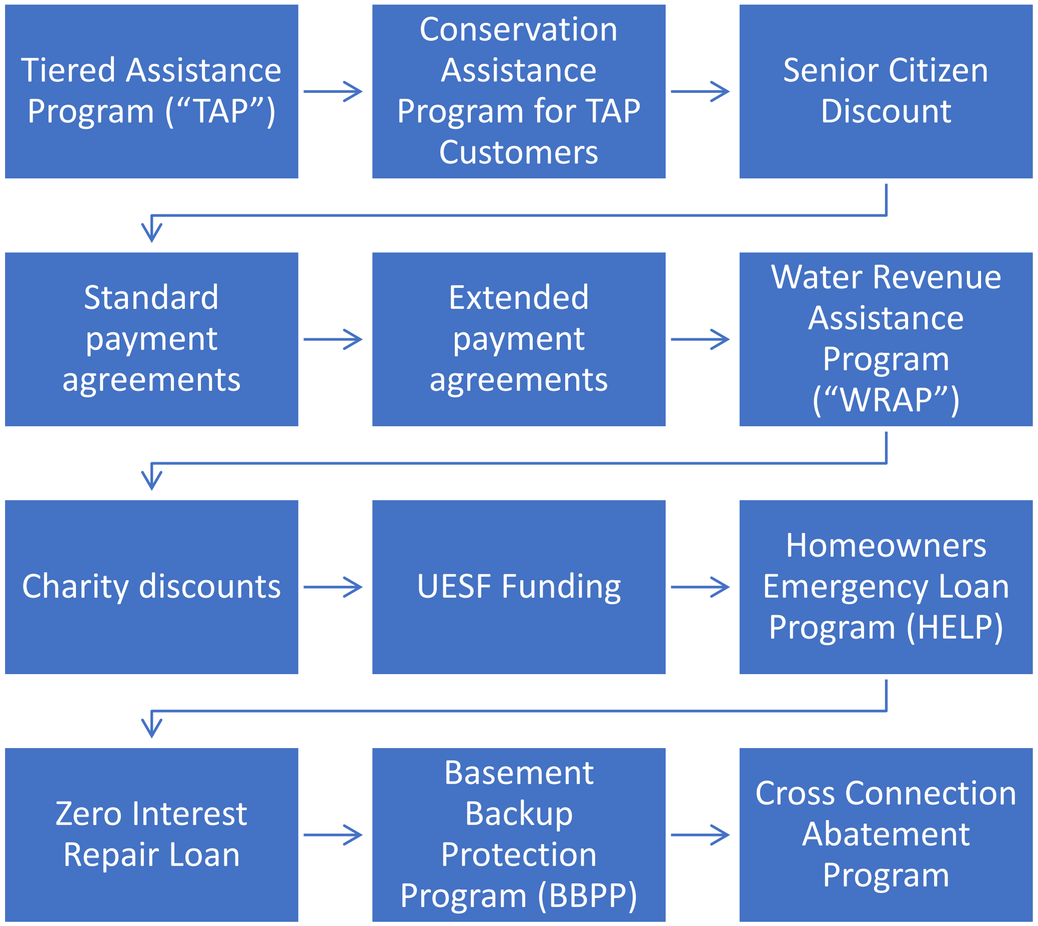
Fiscal Year	Average Monthly TAP Participants	TAP Participants (Last Month of FY)	Total TAP Credits / Discounts
2023	14,382	18,419	$9,039,377
2024	32,660	54,641	18,803,906
2025	59,041	58,494	37,584,004
2026	60,827	60,827	39,900,805

1) TAP participants and discounts are sourced from the TAP Monthly Statistics Report Schedule RFC-4
2) Principal and penalty forgiveness totals are sourced from the Forgiven Totals Report Schedule RFC-12
3) 2025 and 2026 reflect TAP-R projections

FY2026 & FY2027 PROJECTIONS

Water Customer Assistance Program

The mission of WRB and PWD is to provide Philadelphians with access to clean, safe water. If a customer is having trouble paying their bill or maintaining service, there are ample programs to help them. The TAP Program is designed to protect participants from rate increases, as their bills are based on income.



Financial Policies

- Key Financial Policies
- Capital Funding
- Debt Service Coverage
- Outstanding Debt
- Cash Reserves
- Federal Assistance

Key Financial Policies

PWD's financial metrics do not compare favorably with many of its peer utilities (e.g., financial reserves, debt service coverage). To improve its peer comparison, the PWD needs to bolster its financial metrics for the best alignment between debt service coverage and cash reserves.

PWD is focused on achieving **five key financial objectives** related to:

1. **Capital Funding from Current Revenues**: Transition to 20% funding of capital program from current revenues.
2. **Debt Service Coverage**: Maintain 1.30x debt service coverage for senior debt.
3. **Debt Issuance**: Relieve cash flow pressure and better align debt payments, over the lifetime of assets, through strategic debt amortization.
4. **Cash Reserves**: Maintaining and replenishing cash reserves to absorb future costs and offset the level of rate increases.
5. **Federal Assistance** – Secure $100M annually of federal assistance for Capital program

FINANCIAL POLICIES

Capital Program Funding Trends

Over the next few years, **PWD is not projected to meet its goal of funding at least 20% of its capital program from current revenues**. Transfers to the Capital Account must increase, over time, to achieve the 20% goal.

	Cash Funded Capital (000s)	Total Expenditures for Capital (000s)	Percentage of Cash Funding (%)
FY2025	63,662	406,863	**15.6%**
FY2026	61,990	511,975	**12.1%**
FY2027	78,326	596,833	**13.1%**
FY2028	88,977	671,342	**13.3%**
FY2029	103,049	711,252	**14.5%**
FY2030	119,947	754,590	**15.9%**

Source: Schedule BV-1: Table C-2

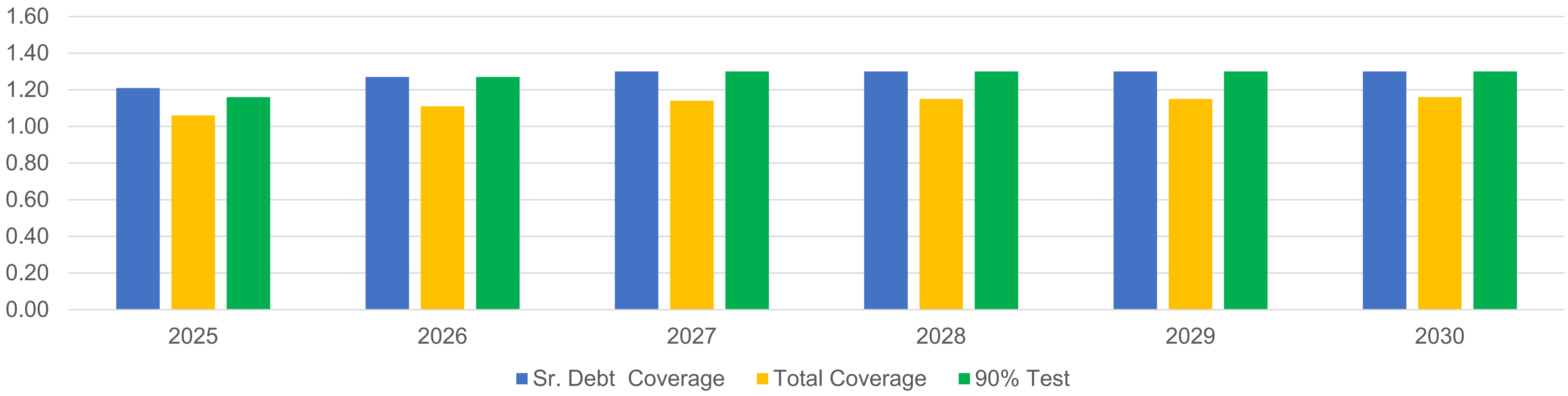
FINANCIAL POLICIES

Debt Service Coverage

PWD is projecting a senior debt service coverage ratio of 1.21x in FY 2025 and targeting coverage of 1.27x, on an interim basis, in FY 2026. Thereafter (FY 2027-2030), PWD will adjust coverage to 1.30x consistent with approved financial metrics.

PROJECTED COVERAGE CALCULATIONS

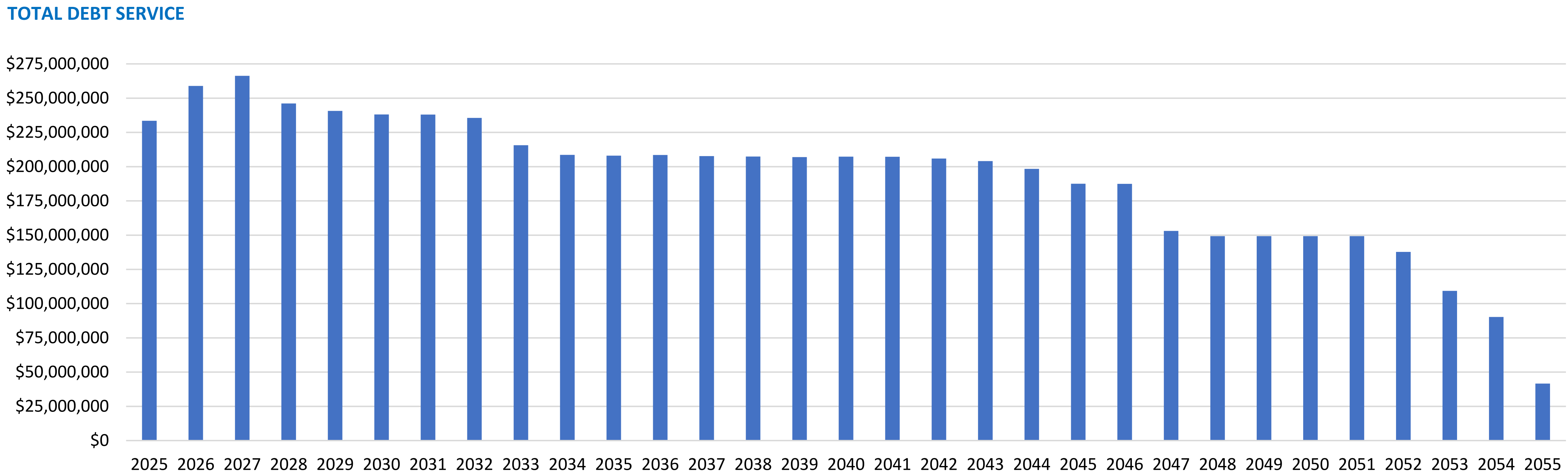
Required Senior Debt Service Coverage of 1.20x



Source: Schedule BV-1: Table C-2

FINANCIAL POLICIES

Outstanding Debt



- PWD continues to leverage the lowest cost forms of debt available including Pennvest and WIFIA loans
- Approximately $3.4 billion of par outstanding (as of September 30, 2024) with a final maturity in November 2054 (FY 2055)
- 100% of PWD’s outstanding debt is fixed rate

FINANCIAL POLICIES

Cash Reserves

- Historically, PWD has utilized cash reserves to offset the level of current rate increases. However, reserves are currently, projected to be, below targets over the next two years.
- PWD aims to set a target above the Board's current target of a $135 million balance in the Rate Stabilization Fund due to rising operating and capital costs
- PWD aims to maintain a minimum of $15M in the Residual Fund, which contains remaining annual revenues after all other payments are made.

Fiscal Year	Residual Fund Year-End Balance ($000s)	Goal Met?	Rate Stabilization Fund Year-End Balance ($000s)	Goal Met?	Total Cash Reserves ($000s)
2025	15,018	Y	120,245	N	135,263
2026	15,031	Y	133,657	N	148,688
2027	15,052	Y	137,745	Y	152,797
2028	15,096	Y	142,781	Y	157,877
2029	15,072	Y	148,301	Y	163,373
2030	15,040	Y	153,033	Y	168,073

Source: Schedule BV-1: Table C-1

- The Rate Stabilization Fund is to cover annual expenditures when the revenues are less than projected. The Rate Stabilization Fund serves as the Water Department’s primary source of liquidity and provides protection to ratepayers and bondholders.

FINANCIAL POLICIES

State & Federal Assistance*

- PWD is pursuing state and federal assistance to support the funding of critical infrastructure upgrades.
- The cost savings from awarded assistance will help the Water Department continue to make needed system investments.

	No. of Application Submitted	Est. Project Cost	Application Submitted	Grant Approved	Loan Approved	Funding Received
Grant	**20**	**$ 616,085,679**	**$ 190,276,674**	**$ 101,507,443**	**$ -**	**$ 250,000**
ARPA COVID-19	3	$ 46,752,487	$ 29,881,142	$ 24,661,090		
EPA	1	$ 3,031,080	$ 1,000,000			
PEMA/FEMA - BRIC	5	$ 164,974,379	$ 91,888,859	$ 25,367,404		
PEMA/FEMA - FMA	2	$ 74,550,852	$ 55,416,368			
PEMA/FEMA - HMGP	2	$ 896,520	$ 672,390			
US Congressional Appropriation (Leadlines)	1	$ 22,545,000	$ 3,757,000			
US Dept of Housing CDBG-DR	3	$ 289,662,949		$ 51,478,949		$ 250,000
US Dept. of Energy	2	$ 10,240,408	$ 4,995,108			
US Dept. of Labor	1	$ 3,432,003	$ 2,665,807			
Loan AND Grant	1	**$ 9,975,000**	**$ 9,975,000**	**$ 4,817,625**	**$ 5,157,375**	**$ -**
PennVest Lead Servce Line Replacement	1	$ 9,975,000	$ 9,975,000	$ 4,817,625	$ 5,157,375	
Loan	12	**$ 1,222,346,708**	**$ 866,807,708**	**$ -**	**$ 866,807,708**	**$ 184,720,945**
Pennvest	11	$ 525,211,708	$ 525,211,708	$ -	$ 525,211,708	$ 170,933,895
WIFIA (Less competitive interest rate)	1	$ 697,135,000	$ 341,596,000	$ -	$ 341,596,000	$ 13,787,050
Grand Total	**35**	**$ 1,848,407,387**	**$ 1,067,059,382**	**$ 106,325,068**	**$ 871,965,083**	**$ 184,970,945**

**Federal and State assistance as of December 31, 2024.*

Peer Utility Comparison

- Peer Utilities and Credit Rating
- Peer Utility Financial Metrics
- Peer Utility Typical Bill Comparisons

PEER UTILITY COMPARISON

Peer Utility Summary

The selected peers reflect systems with comparable regulatory mandates to Philadelphia.

Utility	State	Total Operating Revenues ($000) [1]	Net Fixed Assets ($000) [1, 2]
Baltimore Sewer System	MD	$294,848	$3,601,743
Baltimore Water System	MD	232,752	2,075,810
Cleveland Water System	OH	317,379	1,731,320
DC Water & Sewer Authority (“DC Water”)	DC	898,763	8,185,753
Massachusetts Water Resource Authority (“MWRA”)	MA	836,955	5,525,902
Metropolitan St. Louis Sewer District (“St. Louis Sewer”)	MO	471,766	3,981,902
Northeast Ohio Regional Sewer District (“NEORSD”)	OH	408,124	3,345,533
Philadelphia Water & Sewer System	**PA**	**817,096**	**3,170,873**
Pittsburgh Water & Sewer System (“PWSA”)	PA	298,716	1,206,020

1.Source: Moody’s Financial Ratio Analysis data as of Fiscal Year 2023.
2.Net Fixed Assets are the value of a company's fixed assets minus accumulated depreciation

PWD Credit Rating Overview

Synopsis of rating agency reports for City of Philadelphia Water and Wastewater Revenue Bonds. Series 2024C

Fitch[1] I A+ Rated: Stable Outlook (2024)	Moody's[2] I A1 Rated: Stable Outlook (2024)	S&P[3] I A+ Rated: Stable Outlook (2024)
STRENGTHS AND OPPORTUNITIES		
• Affordable rates for majority (76%) of the population and independent rate board • Low operating cost burden at $2,805 per million gallons. • Moderate leverage at 8.3X in FY23, which is a reduction below 8.7X average over past four years • **Factors that could lead to Credit upgrade:** • Leverage sustained below 8.0x • Improvement in revenue defensibility driven by assessment of service area characteristics	• Large and diverse service area • Adequate coverage and liquidity • Demonstrated willingness to increase user rates • Weak socioeconomic status (low MHI, high unemployment, high on public assistance • . **Factors that could lead to Credit upgrade:** • Consistent coverage above 2x (on a Moody's-adjusted basis) which is 1.75X in 2023 • Proven ability to address all capital needs while keeping debt at reasonable levels • Increase in days cash on hand above 350 days (including rate stabilization fund) which is current at 236	• Large and diversified service area • Comprehensive operational management, forward-looking planning with strong financial policies, prudent budgetary practices and financial forecasting (5-year plan) • Significant unrestricted balance that exceed 200 days of operations and exceeds $325 million, including RSF • Ability to prioritize CIP and mitigate environmental, social and governmental risks • **Factors that could lead to Credit upgrade:** • Return of financial performance to targeted levels • Successful execution of projects including requirement changes to treatment or land application related to PFAS.
CHALLENGES		
• Substantial Capital needs • Lower income level of customers • Increasing regulatory mandates for example PFAS and Lead • **Factors that could lead to Credit downgrade:** • Leverage sustained above 10.0x; currently at 8.3X • Failure to secure rate increases in a timely manner to sufficiently support capital plan needs	• Substantial capital plan will increase debt burden • Aggressive rate increases required to preserve financial position • Demographic challenges in parts of city • **Factors that could lead to Credit downgrade:** • Coverage below 1.25x (on a Moody's-adj basis), at 1.75X in FY23 • Indication that rate board will not approve the rate increases necessary to fund the department's capital plan • Debt to revenue exceeding 5x, which is at 3x in FY23	• Affordability concern given the poverty rate at 20%. Current rate of $84 is considered affordable • Sizable capital plan, compliance requirement and climate risk • **Factors that could lead to Credit downgrade:** • If rate increases are insufficient to meet projected debt service coverage (DSC). FY26 projection is 1.3X and FY24 actual is 1.22X • Failure to invest in infrastructure resulting in rise of asset failure

1.Source: Fitch Ratings. Fitch Rates Philadelphia (PA) Water and Wastewater Revs 'A+'; Outlook Stable– October 28, 2024
2.Source: Moody's Investor's Report. Moody's assigns A1 to Philadelphia Water and Sewer Enterprise, PA's Series 2024C bonds Rating Action:– October 11, 2024
3.Source: S&P Global Ratings – Philadelphia Water Sewer Ratings Direct Report – October 8, 2024

PEER UTILITY COMPARISON

Rating Distribution of Peer Utilities

PWD's long-term credit standing falls within "A" for all three major credit rating agencies. Most of PWD's peer utilities are ranked in the 'AA' category.

STANDARD & POORS

BBB-	BBB	BBB+	A-	A	A+	AA-	AA	AA+	AAA
					Philadelphia PWSA Baltimore (s), (w)			MWRA NEORSD Cleveland Water	DC Water St. Louis

MOODY'S

Baa3	Baa2	Baa1	A3	A2	A1	Aa3	Aa2	Aa1	Aaa
			PWSA		**Philadelphia**	Baltimore (s) **Moody's Median Senior Rating**	Baltimore (w) Cleveland Water	DC Water MWRA St. Louis (s) NEORSD (s)	

FITCH

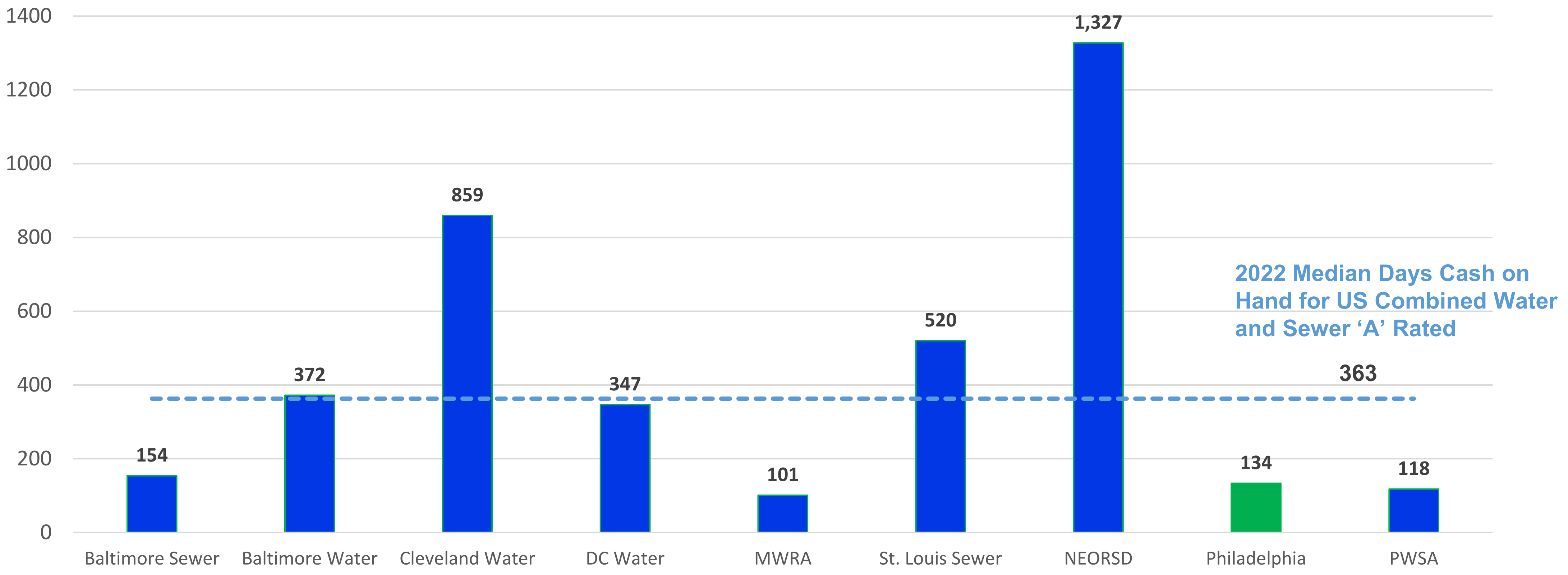
BBB-	BBB	BBB+	A-	A	A+	AA-	AA	AA+	AAA
					Philadelphia			DC Water MWRA St. Louis	

Key: (w): water only, (s): sewer only
Ratings are as of the most recent publicly available rating for each peer.
The following peers are not currently rated by Fitch; Baltimore Water, Baltimore Sewer, NEORSD, Cleveland Water and PWSA

PEER UTILITY COMPARISON

Reserve Levels vs. Peer Utilities

The System has modest reserves compared to peer utilities and falls below the median for “A” rated water and sewer utilities.

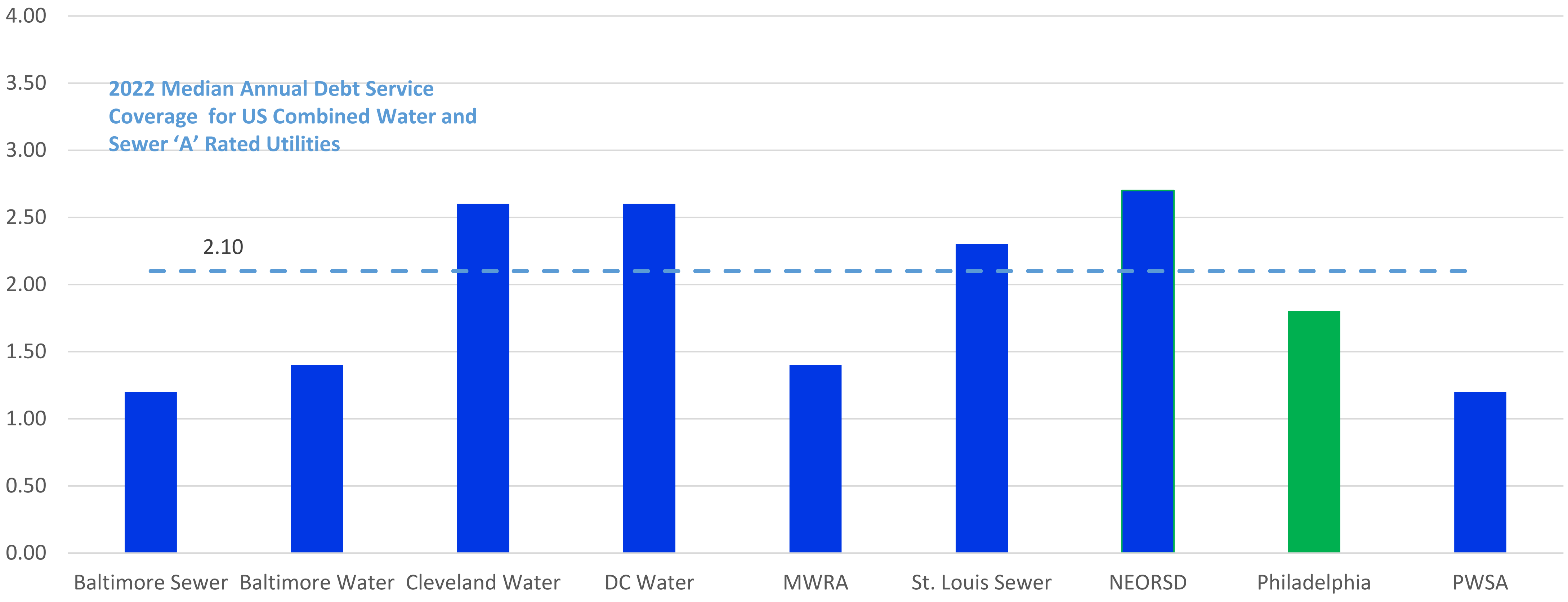


Source: Moody’s Investor Services. Report: “Medians – Net revenues grow, supporting improved liquidity and stable coverage – October 21, 2024)
NOTE: Days on cash is defined as the number of days that an organization can continue to pay its operating expenses, given the amount of cash available

PEER UTILITY COMPARISON

Moody's Adjusted Annual Debt Service Coverage

The System's debt service coverage is below average when compared to the Moody's Median for "A" rated combined systems.

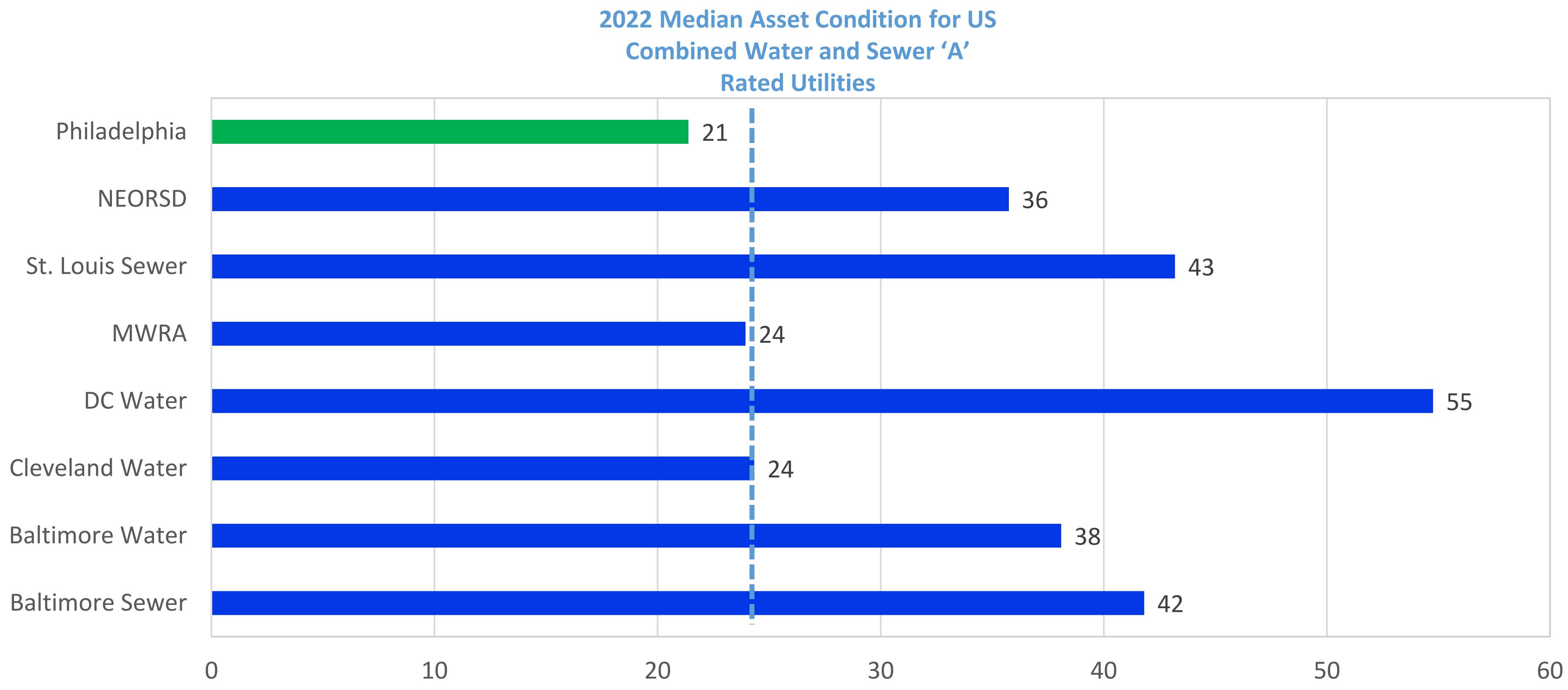


Source: Moody's Investor Services. Report: "Medians – Net revenues grow, supporting improved liquidity and stable coverage – October 21, 2024

PEER UTILITY COMPARISON

Asset Condition

The System's asset condition is lower than the Moody's Median for "A" rated combined systems and selected peers which indicates a potentially higher level of reinvestment is needed to support the system.

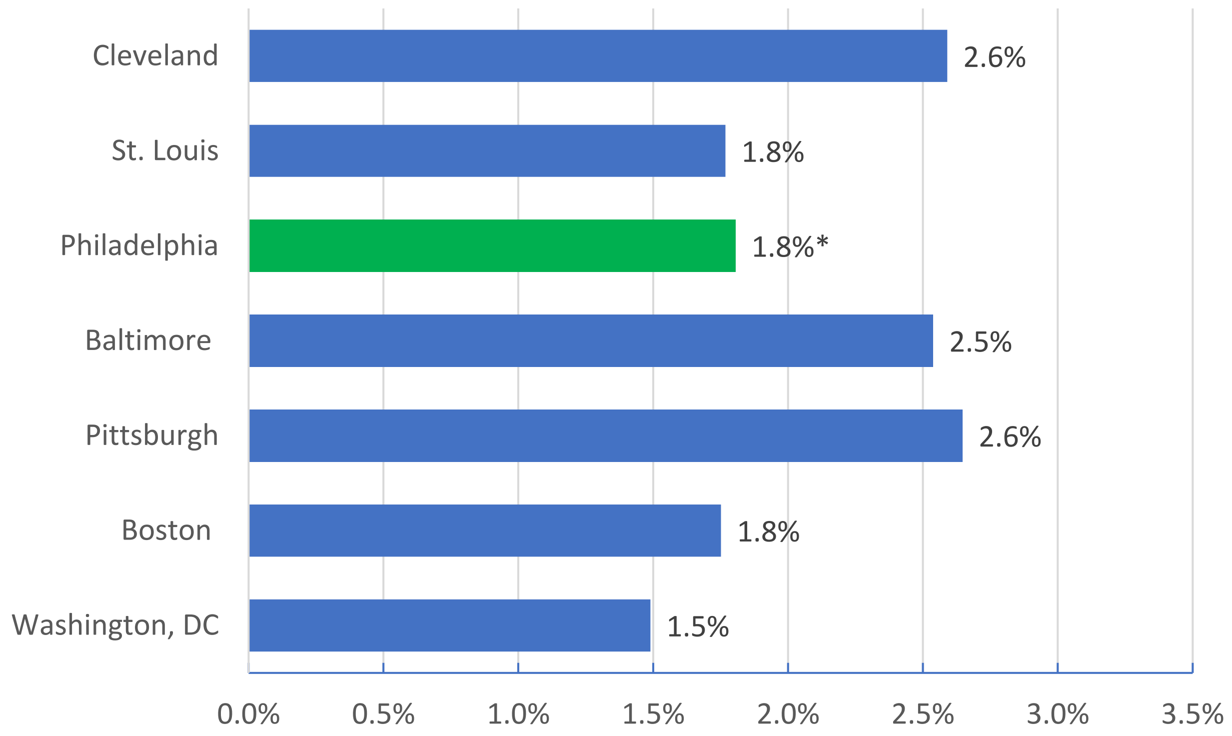


Source: Moody's Investor Services. Report: "Medians – Net revenues grow, supporting improved liquidity and stable coverage – October 21, 2024.
Note: Asset condition is defined as "net fixed assets divided by most recent year's depreciation, expressed in years"..

PEER UTILITY COMPARISON

Typical Bill Comparison vs Peer Utilities

COMBINED BILL AS % OF EACH CITY'S MEDIUM HOUSEHOLD INCOME



COMBINED BILL OF EACH CITY

PEER CITY	MONTHLY BILL
Cleveland	$84.58
St. Louis	$81.44
Philadelphia	**$91.31**
Baltimore	$126.11
Pittsburgh	$141.49
Boston	$138.29
Washington, DC	$131.95

* At 1.8%, Philadelphia falls below the affordability threshold recommended by industry standards.

** This combined monthly bill reflects the proposed FY 2026 base and TAP-R rates.

Source: Median Household Income data from census.gov library.
Peer utility bill data from each utility's most recent rates and charges.

Summary

- PWD is experiencing a revenue shortfall and increased expenses in FY 2025 that will require the projected withdrawal of $12.2 million from its financial reserves to make ends meet. And the Department's financial prospects are projected to worsen in FY 2026 and FY 2027.

- PWD projected revenues and revenue requirements indicate that a significant increase in rates for FY 2026 and FY 2027 will be required to support essential services.

- The need for rate relief in FY 2026 and FY 2027 is caused by the following key drivers: (a) a significant decline in operating revenues compared to prior projections; (b) unavoidable increases in operating costs (e.g., work force costs, contract services, materials/equipment, power and transfers); and (c) the need to replenish financial reserves and meet mandatory financial metrics.

- PWD rates will be insufficient to meet the Department's financial reserves target and mandatory covenants with investors (e.g., debt service coverage; 90% Test in FY 2027) without the authorization of additional operating revenues.

- PWD cannot continually make withdrawals from financial reserves to support day-to-day operating expenses. To sustain its operations and maintain or improve its credit rating, the Department must maintain liquidity and improve its financial position over time.

- The Department's financial position does not compare favorably with many of its peer utilities. To improve its peer comparisons, PWD needs to improve its financial metrics over time (e.g. debt service coverage and financial reserves).

PHILADELPHIA WATER DEPARTMENT

Appendix I

FY25-FY30 Projections:
Projected Revenue and Revenue Requirements

Schedule FP-1

FY 25 – FY 30: *Projected Revenue and Revenue Requirements*

TABLE C-1: PROJECTED REVENUE AND REVENUE REQUIREMENTS
Base and TAP-R Surcharge Rates
(in thousands of dollars)

Line No.	Description			2025	2026	2027	2028	2029	2030
				Fiscal Year Ending June 30,					
	OPERATING REVENUE								
1	Water Service - Existing Rates			372,118	380,862	378,850	375,484	373,600	371,932
2	Wastewater Service - Existing Rates			545,992	560,132	559,080	556,063	542,627	540,713
3	Total Service Revenue - Existing Rates			918,109	940,994	937,930	931,547	916,227	912,645
	Additional Service Revenue Required								
	Year	Percent Increase	Months Effective						
4	FY 2026	10.74%	10		82,379	100,436	99,823	98,313	97,973
5	FY 2027	6.95%	10			58,858	71,728	70,515	70,242
6	FY 2028	6.52%	10				58,668	70,771	70,497
7	FY 2029	8.87%	10					83,553	102,126
8	FY 2030	7.69%	10						78,514
9	Total Additional Service Revenue Required			-	82,379	159,294	230,219	323,151	419,354
10	Total Water & Wastewater Service Revenue			918,109	1,023,373	1,097,224	1,161,766	1,239,379	1,331,999
	Other Income (a)								
11	Other Operating Revenue			(7,941)	(10,143)	(19,640)	(19,731)	(19,779)	(19,826)
12	Debt Reserve Account Interest Income			82	394	930	1,993	3,406	4,719
13	Operating Fund Interest Income			3,650	3,926	4,043	4,132	4,242	4,376
14	Rate Stabilization Interest Income			2,619	2,659	2,772	2,870	2,987	3,105
15	Total Revenues			916,518	1,020,209	1,085,329	1,151,029	1,230,235	1,324,372
	OPERATING EXPENSES								
16	Total Operating Expenses			(638,475)	(678,707)	(713,789)	(739,978)	(767,409)	(795,504)
	NET REVENUES								
17	Transfer From/(To) Rate Stabilization Fund			12,193	(13,412)	(4,088)	(5,037)	(5,520)	(4,731)
18	NET REVENUES AFTER OPERATIONS			290,237	328,091	367,452	406,015	457,305	524,137
	DEBT SERVICE								
	Senior Debt Service								
	Revenue Bonds								
19	Outstanding Bonds			(220,303)	(231,843)	(231,844)	(218,499)	(209,623)	(210,974)
20	PENNVEST Loans			(16,412)	(24,506)	(31,321)	(36,294)	(39,100)	(40,437)
21	Projected Future Bonds			(0)	-	(16,667)	(54,771)	(100,294)	(149,015)
22	Commercial Paper			(1,349)	(1,349)	(1,349)	(1,349)	(1,349)	(1,349)
23	WIFIA			(356)	(593)	(1,407)	(1,407)	(1,407)	(1,407)
24	Total Senior Debt Service			(238,420)	(258,292)	(282,588)	(312,319)	(351,773)	(403,182)
25	TOTAL SENIOR DEBT SERVICE COVERAGE (L18/L24)			1.21 x	1.27 x	1.30 x	1.30 x	1.30 x	1.30 x
26	Subordinate Debt Service			-	-	-	-	-	-
27	Transfer to Escrow			-	-	-	-	-	-
28	Total Debt Service on Bonds			(238,420)	(258,292)	(282,588)	(312,319)	(351,773)	(403,182)
29	CAPITAL ACCOUNT DEPOSIT			(34,362)	(36,290)	(38,326)	(40,477)	(42,749)	(45,147)
30	TOTAL COVERAGE (L18/(L24+L26+L29))			1.06 x	1.11 x	1.14 x	1.15 x	1.15 x	1.16 x
31	End of Year Revenue Fund Balance			17,455	33,509	46,538	53,219	62,783	75,807
	RESIDUAL FUND								
32	Beginning of Year Balance			30,847	15,018	15,031	15,052	15,096	15,072
33	Interest Income			454	298	298	298	299	298
	Plus:								
34	End of Year Revenue Fund Balance			17,455	33,509	46,538	53,219	62,783	75,807
35	Deposit for Transfer to City General Fund (b)			4,994	4,994	4,994	4,994	4,994	4,994
	Less:								
36	Transfer to Construction Fund			(29,300)	(25,700)	(40,000)	(48,500)	(60,300)	(74,800)
37	Transfer to City General Fund			(4,994)	(4,994)	(4,994)	(4,994)	(4,994)	(4,994)
38	Transfer to Debt Reserve Account			(4,438)	(8,094)	(6,815)	(4,973)	(2,806)	(1,337)
39	End of Year Balance			15,018	15,031	15,052	15,096	15,072	15,040
	RATE STABILIZATION FUND								
40	Beginning of Year Balance (c)			132,438	120,245	133,657	137,745	142,781	148,301
41	Deposit From/(To) Revenue Fund			(12,193)	13,412	4,088	5,037	5,520	4,731
42	End of Year Balance			120,245	133,657	137,745	142,781	148,301	153,033

(a) Includes other operating and nonoperating income, including interest income on funds and accounts transferable to the Revenue Fund and reflects projected contra revenue credits for Affordability Program Discounts (TAP Costs).

(b) Transfer of interest earnings from the Debt Reserve Account to the Residual Fund as shown in Line 35 to satisfy the requirements for the transfer to the City General Fund shown on Line 37.

(c) FY 2025 beginning balance is estimated based on preliminary FY 2024 results.

Source: Schedule BV-1: Table C-1

FY 25 – FY 30: *Projected Base Rate Revenue and Revenue Requirements*

Source: Schedule BV-1: Table C-1A

Schedule FP-1

TABLE C-1A: PROJECTED REVENUE AND REVENUE REQUIREMENTS
Base Rates Excluding TAP-R Surcharge
(in thousands of dollars)

Line No.	Description			2025	2026	2027	2028	2029	2030
				Fiscal Year Ending June 30,					
	OPERATING REVENUE								
1	Water Service - Existing Rates			360,384	365,313	362,873	359,609	357,815	356,225
2	Wastewater Service - Existing Rates			529,333	538,149	536,504	533,635	520,326	518,523
3	Total Service Revenue - Existing Rates			889,717	903,462	899,377	893,245	878,141	874,748
	Additional Service Revenue Required								
	Year	Percent Increase	Months Effective						
4	FY 2026	10.00%	10		73,630	89,938	89,324	87,814	87,475
5	FY 2027	7.30%	10			58,858	71,728	70,515	70,242
6	FY 2028	6.83%	10				58,668	70,771	70,497
7	FY 2029	9.26%	10					83,553	102,126
8	FY 2030	7.99%	10						78,514
9	Total Additional Service Revenue Required			-	73,630	148,795	219,720	312,653	408,855
10	Total Water & Wastewater Service Revenue			889,717	977,092	1,048,172	1,112,965	1,190,794	1,283,603
	Other Income (a)								
11	Other Operating Revenue			29,644	29,726	29,624	29,533	29,486	29,438
12	Debt Reserve Account Interest Income			82	394	930	1,993	3,406	4,719
13	Operating Fund Interest Income			3,650	3,926	4,043	4,132	4,242	4,376
14	Rate Stabilization Interest Income			2,619	2,659	2,772	2,870	2,987	3,105
15	Total Revenues			925,711	1,013,797	1,085,541	1,151,493	1,230,914	1,325,240
	OPERATING EXPENSES								
16	Total Operating Expenses			(638,475)	(678,707)	(713,789)	(739,978)	(767,409)	(795,504)
	NET REVENUES								
17	Transfer From/(To) Rate Stabilization Fund			3,000	(7,000)	(4,300)	(5,500)	(6,200)	(5,600)
18	NET REVENUES AFTER OPERATIONS			290,237	328,091	367,452	406,015	457,305	524,137
	DEBT SERVICE								
	Senior Debt Service								
	Revenue Bonds								
19	Outstanding Bonds			(220,303)	(231,843)	(231,844)	(218,499)	(209,623)	(210,974)
20	PENNVEST Loans			(16,412)	(24,506)	(31,321)	(36,294)	(39,100)	(40,437)
21	Projected Future Bonds			(0)	-	(16,667)	(54,771)	(100,294)	(149,015)
22	Commercial Paper			(1,349)	(1,349)	(1,349)	(1,349)	(1,349)	(1,349)
23	WIFIA			(356)	(593)	(1,407)	(1,407)	(1,407)	(1,407)
24	Total Senior Debt Service			(238,420)	(258,292)	(282,588)	(312,319)	(351,773)	(403,182)
25	TOTAL SENIOR DEBT SERVICE COVERAGE (L18/L24)			1.21 x	1.27 x	1.30 x	1.30 x	1.30 x	1.30 x
26	Subordinate Debt Service			-	-	-	-	-	-
27	Transfer to Escrow			-	-	-	-	-	-
28	Total Debt Service on Bonds			(238,420)	(258,292)	(282,588)	(312,319)	(351,773)	(403,182)
29	CAPITAL ACCOUNT DEPOSIT			(34,362)	(36,290)	(38,326)	(40,477)	(42,749)	(45,147)
30	TOTAL COVERAGE (L18/(L24+L26+L29))			1.06 x	1.11 x	1.14 x	1.15 x	1.15 x	1.16 x
31	End of Year Revenue Fund Balance			17,455	33,509	46,538	53,219	62,783	75,807

(a) Includes other operating and nonoperating income, including interest income on funds and accounts transferable to the Revenue Fund.

(b) Transfer of interest earnings from the Debt Reserve Account to the Residual Fund as shown in Line 35 to satisfy the requirements for the transfer to the City General Fund shown on Line 37.

(c) FY 2025 beginning balance is estimated based on preliminary FY 2024 results.

Schedule FP-1

PHILADELPHIA WATER DEPARTMENT

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MEMORANDUM

TO	City of Philadelphia Water Department
FROM	Valarie J. Allen
DATE	December 18, 2024
RE	Flow of capital and operating funds under the City of Philadelphia Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended (the "General Bond Ordinance")

In connection with the rate proceedings currently being undertaken by the City of Philadelphia Water Department ("Water Department"), you have asked us, as bond counsel to the Water Department, to prepare for submission a discussion of the legally permitted applications, including without limitation the operating and capital expenditure, of Project Revenues and other moneys credited to the Water and Wastewater Funds established under the General Bond Ordinance. We have prepared, as of December 18, 2024, and we attach that discussion, entitled "Flow of Funds and Permitted Expenditures and Other Uses Under the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended," to this memorandum. The discussion attached supersedes in all respects all prior discussions entitled "Flow of Funds and Permitted Expenditures and Other Uses Under the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended" (or otherwise similarly entitled) and prepared by us for the Water Department for rate proceedings or other uses.

Ballard Spahr LLP was bond counsel to the Water Department at the time and participated in the drafting of the General Bond Ordinance. Since 1958, Ballard Spahr LLP has been listed continuously as a nationally recognized bond counsel firm in *The Bond Buyer's Municipal Marketplace* (the Red Book). I have served on Ballard's bond counsel team for the Water Department since 2007. I am a partner in the firm and co-chair the firm's public finance practice group. I am resident in our Philadelphia offices, where I practice exclusively in the area of public finance law.

Flow of Funds and Permitted Expenditures and Other Uses Under the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended

Prepared by
Ballard Spahr LLP
Bond Counsel

December 18, 2024

Ballard Spahr LLP

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Section 1. INTRODUCTION AND BACKGROUND

The treatment and application of revenues and other moneys of the City of Philadelphia (the "*City*"), relating to the its water system and wastewater system (together, the "*System*"), are governed by a legal structure created under Pennsylvania law, namely, the statutes and ordinances known as the Philadelphia Home Rule Charter[1] (the "*City Charter*"), the First Class City Revenue Bond Act[2] (the "*Revenue Bond Act*") and the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 (as amended and supplemented, the "*General Bond Ordinance*" or "*GBO*"). This paper focuses primarily on the General Bond Ordinance, the provisions of which control, among other things, (1) the flow of funds or moneys generated by and otherwise related to the System, and (2) the City's ability to obtain capital to invest in the infrastructure necessary to keep the System in good working condition.

The City Charter endows the Water Department with the duty and power to, among other things, (1) operate, maintain, repair, construct and improve the City's water supply and sewage disposal systems and facilities, and (2) impose and collect rates and charges sufficient to pay the costs of operating, maintaining, repairing, constructing and improving such systems and facilities.[3] In order for the Water Department to keep the System in good working condition and meet its mandate, it must repair, replace and improve critical infrastructure on a regular basis. As noted in the annotations to the relevant provisions of the City Charter, paying the ongoing costs associated with the repair, construction and improvement of water and sewer infrastructure represent major capital investments by the City, the undertaking of which requires authorization by City Council. The Revenue Bond Act provides the City Council with the authority to finance these capital costs through the issuance of debt payable solely from revenues generated by or otherwise received for the System. City Council authorizes the City to make operating and capital expenditures, incur debt and fund reserves for the System pursuant to the General Bond Ordinance.

The City finances capital expenditures for the System primarily through (1) the incurrence of debt through the issuance of water and wastewater revenue bonds and notes (collectively, "*Bonds*") and (2) the accumulation of revenues generated by the System and deposited to the Capital Account.[4] The General Bond Ordinance facilitates both of these methods for obtaining capital, but not simply by providing the mechanics for issuing bonds and accumulating revenues. The General Bond Ordinance is a contract between the City and its Bondholders concerning how the repayment of debt and other financing activities of the Water Department will be performed and controlled. It originally was enacted during a period when the City was financially distressed. The financial, operational, procedural and other covenants made by the City in the General Bond Ordinance largely reflect what was required by investors, rating agencies, bond insurers and other credit enhancers at that time in order for the City to be able to sell its Bonds in the capital market and achieve an affordable cost of capital for its ratepayers.

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[1] Philadelphia Home Rule Charter adopted by the electors of the City of Philadelphia on April 17, 1951, as amended.

[2] The First Class City Revenue Bond Act approved October 18, 1972 (Act No. 234, 53 P.S. § 15901 to 16924) as from time to time amended.

[3] See City Charter §5-800, §5-801.

[4] The City may from time to time receive state or federal grants, but any such amounts are immaterial for purposes of this discussion.

On November 19, 2020, the Philadelphia City Council passed the Twenty-Fifth Supplemental Ordinance to the General Bond Ordinance, Bill No. 200599, enacted by signature of the mayor on December 1, 2020 (the "*Twenty-Fifth Supplemental Ordinance*"), to establish a revolving commercial paper program ("*CP Program*") to provide the Water Department a source of an interim, short-term financing to meet immediate capital spending needs between long-term debt issuances. The Twenty-Fifth Supplemental Ordinance provides for the issuance of obligations under the CP Program ("*CP Obligations*"), on a revolving basis, in an aggregate principal amount not greater than $400 million at any time outstanding. When issued and outstanding, CP Obligations constitute Bonds outstanding under the General Bond Ordinance, secured and payable with other senior debt under issued or incurred by the City under the General Bond Ordinance.

Capitalized terms not otherwise defined in the narrative have the definitions set forth in the Appendix hereto.

Section 2. PURPOSES OF GENERAL BOND ORDINANCE

The General Bond Ordinance was enacted by the City for the purposes of:

- Authorizing the issuance from time to time by the City of Bonds, payable solely from revenues attributable to the System, to pay capital costs of the System;

- Establishing a contract and security agreement between the City and holders of Bonds (and credit providers for Bonds) under which the City, for so long as any Bond or related obligation is outstanding, (a) covenants, among other things, to pay the Bonds and related obligations and (b) pledges security to holders of the Bonds (and credit providers for Bonds); and

- Establishing a system of funds and accounts with a fiscal agent, for the benefit of the holders of Bonds (and credit providers for Bonds), to facilitate and control the segregation, deposit, holding, investment, transfer and expenditure of all Project Revenues (defined below) and all other moneys related to the System, including for the payment of the Bonds.

Section 3. SECURITY INTERESTS IN PROJECT REVENUES AND WATER AND WASTEWATER FUNDS

This section discusses the sources of payment and security for Bonds, as governed by the General Bond Ordinance. "Revenue bonds" are so called because they are payable only from a particular stream of revenues. In the case of Water and Wastewater Revenue Bonds, they are payable from "Project Revenues," i.e., revenues generated by and collected in respect of the System (as more particularly defined below). Under the General Bond Ordinance, the City has covenanted that it will expend Project Revenues only in support of the System and in a specified order of priority; and the City has granted to U.S. Bank National Association, as fiscal agent under the General Bond Ordinance (together with its successors and assigns, the "*Fiscal Agent*"), for the benefit of all Bondholders (other than holders of

Subordinated Bonds),[5] a first lien on and security interest in all Project Revenues and amounts in the Water and Wastewater Revenue Funds (other than the Rebate Fund).[6]

3.1 Deposit of Project Revenues, Segregation of Water and Wastewater Funds

In order to preserve and protect Bondholders' sole source of payment and security – Project Revenues – the General Bond Ordinance provides for strict controls on the collection, deposit, segregation and disbursement of Project Revenues. The City must cause all Project Revenues received by it to be deposited into the Revenue Fund upon receipt; and the Fiscal Agent must, upon receipt of Project Revenues, deposit them into the Revenue Fund. Under the General Bond Ordinance, "*Project Revenues*" is defined to include:

> all rents, rates, fees and charges imposed or charged for the connection to, or use or product of or services generated by the System to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, all subsidies or payments payable by Federal, State or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on moneys borrowed to finance costs, chargeable to the System, all grants, payments and contributions made in aid or on account of the System exclusive of grants and similar payments and contributions solely in aid of construction and all accounts, contract rights and general intangibles representing the foregoing.
> *(GBO Section 2.01)*

The funds and accounts established under the General Bond Ordinance must be held separate and apart from all other funds and accounts of the City and the Fiscal Agent. The moneys in such funds and accounts may not be commingled with, loaned or transferred among themselves, or with or to any other funds or accounts of the City, except as expressly permitted in the General Bond Ordinance.
(GBO Section 4.05(a))

3.2 Pledge of Project Revenues

The City has pledged and granted a lien on and security interest in all Project Revenues to the Fiscal Agent, for the equal and ratable security and payment of all Bonds (other than Subordinated Bonds). Financing statements have been filed with the Secretary of State of the Commonwealth of

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[5] The Fiscal Agent must hold and apply such security interests, in trust, for the equal and ratable benefit and security of all present and future Holders of Bonds (other than Subordinated Bonds) issued pursuant to the provisions of the General Bond Ordinance and each Supplemental Ordinance, without preference, priority or distinction of any one Bond over any other Bond (other than Subordinated Bonds); provided however, that the pledge of the General Bond Ordinance may also be for the benefit of a Credit Facility and Qualified Swap, or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds (other than Subordinated Bonds), on and equal and ratable basis with Bonds, to the extent provided by any Supplemental Ordinance or Determination.

[6] The Rebate Fund is established for the purpose of paying to the United States Treasury the amount required to be rebated pursuant to Section 148(f) of the Code. All amounts in the Rebate Fund, including income earned from investment of amounts in the Rebate Fund shall be held free and clear of the lien created by the General Bond Ordinance.

Pennsylvania in respect of such pledge and grant of security interest.
(GBO Section 4.02)

3.3 Pledge of Funds and Accounts

The City has pledged and granted a lien on and security interest in all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established in Section 4.04 of the General Bond Ordinance, together with interest earnings on amounts in such funds and accounts (other than the Rebate Fund) to the Fiscal Agent, for the equal and ratable security and payment of all Bonds (other than Subordinated Bonds). Financing statements have been filed with the Secretary of State of the Commonwealth of Pennsylvania in respect of such pledge and grant of security interest.
(GBO Section 4.02)

The funds and accounts established under Section 4.04 of the General Bond Ordinance and held by the Fiscal Agent include the Revenue Fund; the Sinking Fund, and within the Sinking Fund the Debt Service Account, Debt Reserve Account and Charges Account; the Subordinated Bond Fund; the Rate Stabilization Fund; the Residual Fund; the Construction Fund, and within the Construction Fund the Bond Proceeds Account, Capital Account and Existing Projects Account; and the Rebate Fund. In addition, under certain conditions in connection with the issuance of one or more Series of Bonds, the City may establish additional funds or accounts to be held for the benefit of one or more Series of Bonds, as set forth in Supplemental Ordinances.
(GBO Section 4.04)

Section 4. INTRODUCTION TO FUNDS AND ACCOUNTS AND THEIR PURPOSES

This Section lists the funds and accounts established under the General Bond Ordinance and summarizes the purposes for which moneys in each fund or account may be used.

4.1 Revenue Fund

All Project Revenues initially are deposited into the Revenue Fund for payment of Operating Expenses; and then remaining Project Revenues are transferred to the other funds and accounts established under the General Bond Ordinance, as described in ***Section 5*** **(*FLOW OF FUNDS UNDER THE GENERAL BOND ORDINANCE*)**, below. Other moneys may be transferred or deposited into the Revenue Fund at the City's direction, as described below.
(*GBO Section 4.06*)

4.2 Sinking Fund

The Sinking Fund is a consolidated fund for the equal and proportionate benefit of the holders of all Bonds (other than Subordinated Bonds) Outstanding, including CP Obligations. Money deposited in the Sinking Fund may be used only to pay Debt Service Requirements (i.e., principal, interest and redemption price, as applicable) on such Bonds and other obligations (such as payments under Credit Facilities or Exchange Agreements) related to such Bonds. The Sinking Fund consists of three accounts: the Debt Service Account, the Debt Reserve Account and the Charges Account, which are described

below.
(*GBO Section 4.07*)

Debt Service Account

Money in the Debt Service Account of the Sinking Fund is used to pay debt service and redemption price on Bonds (other than Subordinated Bonds) and related obligations. The Fiscal Agent, as directed by the City, pays (i) by each interest payment date for any such Bonds the amount for the interest payable on such date, (ii) by each principal payment, prepayment or redemption date for any such Bonds the amount payable on such date, and (iii) by the respective due dates the amounts, if any, due under any Swap Agreements or Credit Facilities.
(GBO Section 4.07)

Debt Reserve Account

Money in the Debt Reserve Account of the Sinking Fund is used primarily to cure deficiencies in the Debt Service Account to ensure timely payment of debt service (and other obligations of the City that are payable from the Debt Service Account). If the money in the Debt Service Account is insufficient to pay the debt service or redemption price on any Bond or other obligation payable from the Debt Service Account when due (including under Swap Agreements and Credit Facilities), the Fiscal Agent must transfer the amount of such deficiency from the Debt Reserve Account or, as applicable, any related Series Debt Reserve Subaccount, into the Debt Service Account.

The money and investments in the Debt Reserve Account must be held and maintained in an amount equal at all times to the Debt Reserve Requirement, as defined under the General Bond Ordinance. The Debt Reserve Requirement is generally met through the deposit of Bond proceeds each time Bonds (other than Subordinated Bonds) are issued, as needed. The amount of such a deposit, if any, is the amount necessary to ensure that the Debt Reserve Requirement will be met upon the issuance of such Bonds.

Notwithstanding the preceding paragraph, a Supplemental Ordinance may provide for the establishment of a Series Debt Reserve Requirement specific to each Series of Bonds issued under such Supplemental Ordinance, and a separate, related Series Debt Reserve Subaccount (if such Series Debt Reserve Requirement is greater than zero dollars) within the Debt Reserve Account in respect of such Series of Bonds. The City may not designate a Series Debt Reserve Requirement for a Series of Bonds unless (i) such Series of Bonds will be refunding Bonds issued in accordance with the provisions of the General Bond Ordinance or (ii) the City first obtains written confirmation from any one Rating Agency then rating the Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Bonds Outstanding. The City must deposit in the Series Debt Reserve Subaccount created pursuant to any Supplemental Ordinance, the Series Debt Reserve Requirement for such Series of Bonds. The money and investments in each Series Debt Reserve Subaccount must be held and maintained in an amount equal at all times to the Series Debt Reserve Requirement for such Series of Bonds secured thereby, as provided in the Supplemental Ordinance authorizing such Series of Bonds. All amounts in each Series Debt Reserve Subaccount will be available solely to secure and pay the Debt Service Requirements of the Bonds for which such subaccount was created pursuant to such Supplemental Ordinance, and the Holders of such Bonds will otherwise have no interests in or rights to any other amounts in the Debt Reserve Account.

There are two alternatives to the requirement described above to deposit Bond proceeds into the Debt Reserve Account or, if applicable, any Series Debt Reserve Subaccount at the time of issuance. First, the Supplemental Ordinance under which the Bonds are issued may permit the City, in lieu of making such a deposit at the time of issuance, to accumulate from Project Revenues a reserve of such amount in respect of such Bonds over a period of not more than three Fiscal Years after the issuance and delivery of such Bonds, in which case the full payment of the annual deposits required under such Supplemental Ordinance will meet the Debt Reserve Requirements of the General Bond Ordinance in respect of such Bonds. Second, in lieu of the required deposit of Bond proceeds at the time of issuance, the City may cause to be deposited into the Debt Reserve Account or, as applicable, any Series Debt Reserve Subaccount thereof, a Debt Reserve Facility in an amount equal to the difference between the Debt Service Requirement or the Series Debt Reserve Requirement, respectively, and the remaining sums, if any, then on deposit in the Debt Reserve Account or Series Debt Reserve Subaccount.
(GBO Section 4.09)

Charges Account

The Fiscal Agent pays out of the Charges Account to the appropriate payees any fees, expenses and other amounts due under any Credit Facility with respect to Bonds (other than Subordinated Bonds), to the extent such amounts are not paid from the Debt Service Account.
(GBO Section 4.07)

Calculation of Debt Service Requirements; CP Obligations

Amounts Comprising Debt Service Requirements of Bonds Generally. Debt Service Requirements in any period equals the aggregate amount of principal, interest and redemption price paid on Bonds during the period out of amounts derived from Project Revenues and available under the General Bond Ordinance to pay debt service on Bonds. Those amounts are paid out of the Debt Service Account of the Sinking Fund.[7]

Under the General Bond Ordinance, “Debt Service Requirements,” with reference to a specified period, means:

A. amounts required to be paid into any mandatory sinking fund[8] established for the benefit of Bonds during the period;

B. amounts needed to pay the principal or redemption price of Bonds maturing during the period ***and not to be redeemed at or prior to maturity through any sinking fund established for the benefit of Bonds*** [emphasis added];

C. interest payable on Bonds during the period, ***with adjustment for capitalized interest or redemption through any sinking fund established for the benefit of Bonds*** [emphasis added]; and

[7] In the event of a deficiency in the Debt Service Account of the Sinking Fund, the General Bond Ordinance provides for transfer of moneys to such account to cure the deficiency rather than for payment of debt service from another fund or account established thereunder.

[8] This represents payments made when due with respect to the scheduled amortization of Bonds.

D. all net amounts, if any, due and payable by the City under a Qualified Swap during such period.
(GBO Section 2.01)

The language emphasized is intended to highlight the exceptions, i.e., the amounts paid or payable that are not includible in the calculation of Debt Service Requirements. These exceptions include amounts paid from sources other than the Debt Service Account of the Sinking Fund such as, for example, proceeds of Bonds issued to pay down prior Bonds or to fund capitalized interest.

Amounts Comprising Debt Service Requirements of CP Obligations. CP Obligations constitute Bonds outstanding under the General Bond Ordinance. As such, for purposes of determining, from time to time, the Debt Reserve Requirement or Rate Covenant compliance under the General Bond Ordinance, such calculations will be required to include, as Debt Service Requirements on Bonds (other than Subordinated Bonds), principal of or interest on outstanding CP Obligations that is paid or payable (as applicable) from Project Revenues and other amounts deposited or credited to the Debt Service Account of the Sinking Fund,[9] if any, consistent with clauses B and C above. Principal of or interest on CP Obligations paid or to be payable from other sources, such as proceeds of other Bonds (including other CP Obligations), will not be included in such calculations.

4.3 Subordinated Bond Fund

Any money in the Subordinated Bond Fund will be used to pay the principal of, redemption premium, if any, and interest on Subordinated Bonds and make payments due under any Credit Facilities and Exchange Agreements with respect to Subordinated Bonds. To date, the City has not issued any Subordinated Bonds.
(GBO Section 4.10)

4.4 Rate Stabilization Fund

The purpose of the Rate Stabilization Fund is to maintain liquidity in the Water and Wastewater Funds in satisfaction of financial covenants and otherwise for the financial health and operation of the water and sewer enterprise. The Water Commissioner will determine any transfer to be made between the Revenue Fund and the Rate Stabilization Fund, which transfer occurs as of June 30 of each Fiscal Year.
(GBO Section 4.13)

4.5 Construction Fund

Unless being used to fund a deficiency described in ***5.4 (Sources for Payment of Operating Expense in the Event of Revenue Fund Deficiency)*** **or** ***5.5 (Sources for Payment of Debt Obligations in Event of Debt Service Account Deficiency)*** below, moneys in the Construction Fund may be used only to pay capital expenditures, that is, to pay the costs of acquiring or constructing new assets and replacing or improving existing assets to maintain and expand the System. Please refer to ***5.3 (Capital Expenses and***

[9] This includes principal or interest initially paid under a Credit Facility reimbursed by the City out of the Debt Service Account of the Sinking Fund.

***Payment from Construction Fund*)** for additional information concerning qualified (capital) expenditures and limitations on the use of moneys deposited into the Construction Fund.

The Construction Fund consists of three accounts: the Bond Proceeds Account, the Capital Account and the Existing Projects Account. The purposes of the Bond Proceeds Account and the Capital Account are described below. The Existing Projects Account held unexpended proceeds of bonds issued for the System prior to the enactment of the General Bond Ordinance – which have since been expended – and is no longer in use.
(GBO Section 4.11)

Bond Proceeds Account

The Bond Proceeds Account holds proceeds of Bonds issued for "capital purposes" (and not for refunding purposes) under the General Bond Ordinance, for disbursement according to established procedures of the City to pay the costs of new capital projects.

Capital Account

Moneys deposited into the Capital Account must be used for capital expenditures or else to pay debt service in limited circumstances.[10] Specifically, such amounts may be applied to (i) payments for the cost of renewals, replacements and improvements to the System; (ii) payments into the Sinking Fund or into the Subordinated Bond Fund to cure a deficiency in one of the foregoing; or (iii) the purchase of Bonds if a Consulting Engineer first has certified to the City that amounts remaining on deposit in the Capital Account following the proposed purchase of Bonds will be sufficient to pay the cost of renewals, replacements and improvements to the System projected to be payable during such Fiscal Year.

4.6 Residual Fund

As the Water and Wastewater Funds are a closed system, the Residual Fund is the last Fund into which Project Revenues are transferred from the Revenue Fund. Money in the Residual Fund may be used to pay Operating Expenses or debt service, or for almost any other purpose in support of the System, as described in ***5.2* (*Other Deposits to the Revenue Fund*)** and ***5.4* (*Sources for Payment of Operating Expenses in Event of Revenue Fund Deficiency*)** below. In addition, money in the Residual Fund may be used to fund a transfer to the City's General Fund limited to the "Net Reserve Earnings"[11] up to a maximum of $4,994,000. This annual transfer is often referred to as the "scoop" by the City.
(GBO Section 4.12)

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[10] Such moneys may be used for other very limited purposes only in the event of a deficiency in another Fund. *See* ***5.4* (*Sources for Payment of Operating Expenses in Event of Revenue Fund Deficiency*)** and ***5.5* (*Sources for Payment of Debt Obligations in Event of Debt Service Account Deficiency*)** for an explanation of such other purposes.

[11] "Net Reserve Earnings" means the amount of interest earnings during the Fiscal Year on amounts in the Debt Reserve Account and the Subordinated Bond Fund less the amount of interest earnings during the Fiscal Year on amounts in any such reserve funds and accounts giving rise to a rebate obligation pursuant to Section 148(f) of the Code.

4.7 Rebate Fund

The Rebate Fund is maintained for the purpose of paying to the United States Treasury the amount required to be rebated pursuant to Section 148(f) of the Internal Revenue Code of 1986, as amended (the "Code"). All amounts in the Rebate Fund, including income earned from investment of amounts in the Rebate Fund, must be held by the City free and clear of the lien created by the General Bond Ordinance.

Section 5. FLOW OF FUNDS UNDER THE GENERAL BOND ORDINANCE

The General Bond Ordinance controls the City's and Fiscal Agent's ability to expend, disburse, transfer and invest Project Revenues and other moneys in the Water and Wastewater Funds and their accounts. This Section describes how and for what purposes such moneys flow in and out of those funds and accounts from time to time, in accordance with the provisions of the General Bond Ordinance.

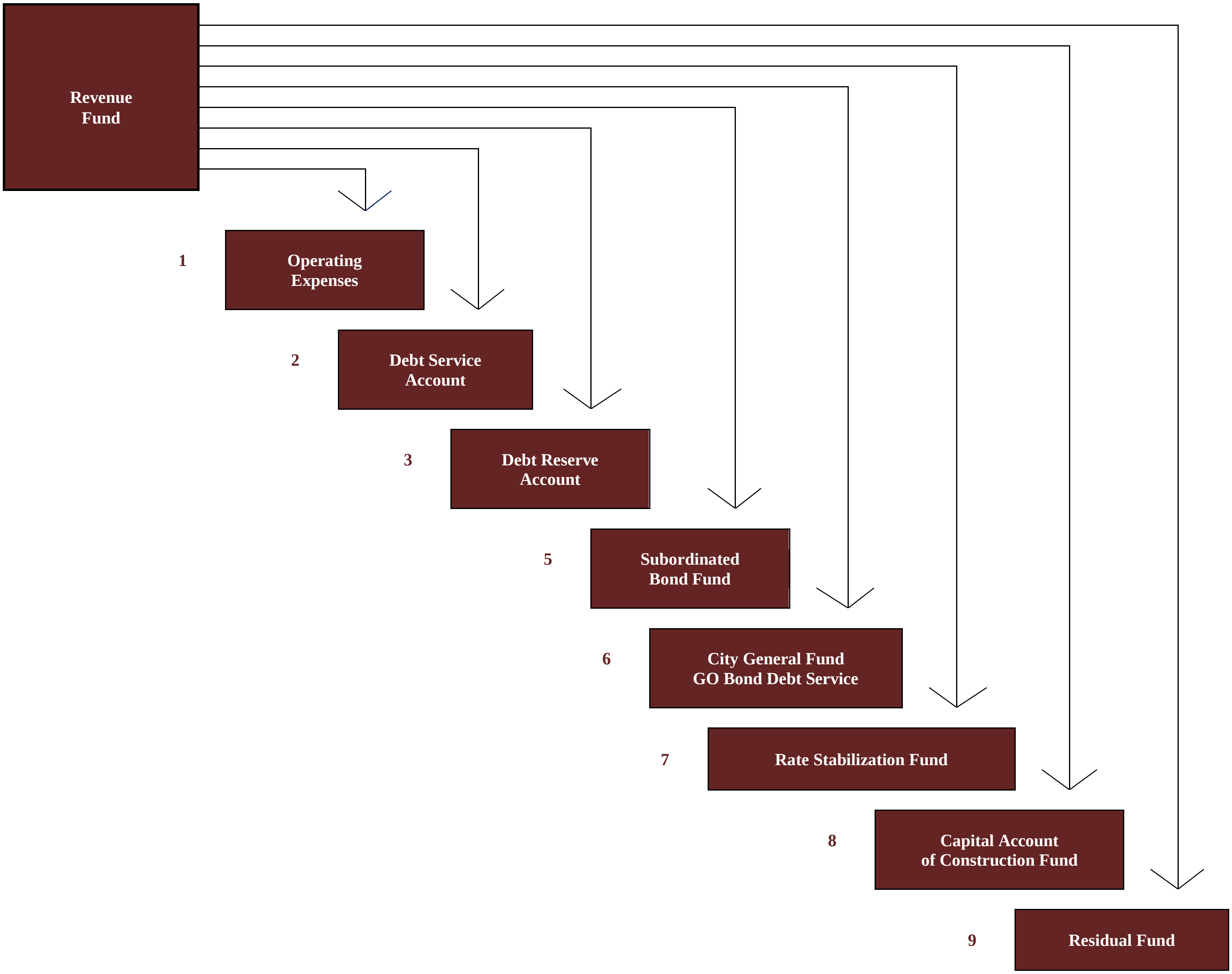
5.1 The Waterfall

Project Revenues and other moneys (other than investment earnings) initially enter the Water and Wastewater Funds when they are deposited into the Revenue Fund. Moneys in the Revenue Fund are disbursed or transferred to the other funds and accounts in order of priority set forth in the General Bond Ordinance. This "flow of funds" often is described as a waterfall. Moneys flow out of the Revenue Fund and down to each fund or account to satisfy the purposes set forth in the General Bond Ordinance for such fund or account (e.g., such as payment of current obligations or replenishment of amounts that were withdrawn). Each of the funds and accounts into which water flows is often referred to as a "bucket" that catches moneys until it is filled, at which point moneys flow over it and down to the next bucket. ***Figure 5.1*** depicts this waterfall; and the number next to each of the boxes corresponds to the funds and accounts, or buckets, and purposes served with the moneys in those buckets.[12]

[*Remainder of page intentionally left blank. Figure 5.1 follows.*]

[12] There is no box numbered 4, because the referenced account, which may be established at the option of the City, has not been established.

Figure. 5.1
Water and Wastewater Revenue Funds "Waterfall"



The General Bond Ordinance requires that amounts in the Revenue Fund must be disbursed and applied in the following manner and order of priority.[13] *(GBO Section 4.06)*

1. Pay ***Operating Expenses*** in a timely manner.

2. Deposit into the ***Debt Service Account*** of the Sinking Fund amounts necessary for the Fiscal Agent to pay debt service and redemption price on Bonds (other than Subordinated Bonds), payments under a Swap Agreement, and payments or reimbursements under a Credit Facility, when due.

3. Deposit into the ***Debt Reserve Account*** including any ***Series Debt Reserve Subaccount*** therein, the amount required to eliminate any deficiency therein.

4. Deposit into any debt reserve account established within the Sinking Fund and not held for the equal and ratable benefit of all Bonds (other than Subordinated Bonds) the amount, if any, required to eliminate any deficiency therein.[14]

5. Deposit into the ***Subordinated Bond Fund*** the amount necessary to provide for the timely payment of the principal or redemption price of and interest on Subordinated Bonds, and forward to the paying agent in respect of bond anticipation notes (payable by exchange for, or out of the proceeds of the sale of Subordinated Bonds) the amount necessary to provide for the timely payment of interest thereon (to the extent not capitalized).

6. Pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest on ***General Obligation Bonds*** of the City issued to finance or refinance capital projects of the System.

7. Deposit into the ***Rate Stabilization Fund*** such amount as the Water Commissioner may determine.

8. Deposit into the ***Capital Account*** of the Construction Fund on June 20 of each Fiscal Year an amount equal to the sum of (i) the Capital Account Deposit Amount,[15] (ii) the Debt Service Withdrawal[16] for the preceding Fiscal Year and (iii) the Operating Expense

[13] Notwithstanding the foregoing, nothing in the General Bond Ordinance will prevent the City from directing the transfer of amounts on deposit in in any fund or account established under General Bond Ordinance into the Rebate Fund in the amounts and at the times specified by the General Bond Ordinance.

[14] To date, no such account has been established for any Series of Bonds.

[15] "Capital Account Deposit Amount" means an amount equal to one percent (1.0%) 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.

[16] "Debt Service Withdrawal" means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of principal or redemption price of or interest on Bonds or toward the elimination of a deficiency in any reserve fund established for the benefit of Bonds.

Withdrawal[17] for the preceding Fiscal Year, less any amounts transferred during the Fiscal Year to such Capital Account from the Residual Fund.

9. Deposit all remaining amounts into the Residual Fund.

5.2 Other Deposits to the Revenue Fund

Project Revenues are the primary but not the sole source of moneys that flow into the Revenue Fund. For example, earnings on the investment of moneys held in certain funds and accounts are transferred to the Revenue Fund, as provided by the General Bond Ordinance. Once in the Revenue Fund, these moneys again flow through the waterfall.

This Section describes the conditions under and purposes for which moneys, other than Project Revenues, are deposited into the Revenue Fund.

Debt Reserve Account Excess

The money and investments in the Debt Reserve Account or in a Series Debt Reserve Subaccount must be held and maintained in an amount equal at all times to the Debt Reserve Requirement and Series Debt Reserve Requirement (each, a "Reserve Requirement"), respectively. The Debt Reserve Requirement or any Series Debt Reserve Requirement is typically met through the deposit of a portion of the proceeds of related Bonds (other than Subordinated Bonds) when issued. The amount of such deposit is the amount necessary to ensure that the Debt Reserve Requirement or any applicable Series Debt Reserve Requirement will be met upon the issuance of the related Bonds.

An excess in the Debt Reserve Account or in a Series Debt Reserve Subaccount may arise when principal on related Bonds is paid or prepaid. For example, when refunding Bonds are issued to refinance existing debt, amounts already on deposit in the Debt Reserve Account or a Series Debt Reserve Subaccount, as applicable, probably will be sufficient or even in excess of what is needed to meet the new Reserve Requirement as recalculated when the new Bonds are issued and the old Bonds paid. The General Bond Ordinance states that any money in the Debt Reserve Account or in a Series Debt Reserve Subaccount in excess of the applicable Reserve Requirement must be transferred to the Revenue Fund at the written direction of the City. How such excess is subsequently disbursed from the Revenue Fund and applied will be limited to the extent that the transferred excess consists of tax-exempt Bond proceeds.[18] *(GBO Section 4.09)*

Investment Earnings from Certain Funds and Accounts

All or a portion of the net earnings on deposit in the following funds and accounts are required under the General Bond Ordinance to be transferred or credited to the Revenue Fund. Such crediting

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[17] "Operating Expense Withdrawal" means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of Operating Expenses.

[18] Under the Code, the use of tax-exempt bond proceeds will be limited to payment of debt service or redemption price on related Bonds and will not be eligible to pay Operating Expenses. The City may apply Debt Reserve Account excess directly to the payment of debt service on or redemption of related Bonds or, if such excess is not comprised of tax-exempt bond proceeds, to transfer such excess to the Residual Fund.

typically occurs when the books are closed as of each Fiscal Year end.
(GBO Section 4.16)

1. Revenue Fund.

2. Rate Stabilization Fund.

3. Sinking Fund (except the Debt Reserve Account), to the extent not needed to pay Debt Service Requirements on Bonds (other than Subordinated Bonds).

4. Debt Reserve Account and any Series Debt Reserve Subaccount therein, to the extent that (i) the related Reserve Requirement is satisfied and (ii) the scoop in the maximum permitted amount already has been transferred to the City's General Fund.

5. Subordinated Bond Fund, to the extent not needed to pay Debt Service Requirements on Subordinated Bonds.

6. Construction Fund, to the extent any amount is not credited to the appropriate account of the Construction Fund.

Rate Stabilization Fund

As earlier described, as of June 30 for each Fiscal Year, the Water Commissioner may transfer from the Rate Stabilization Fund to the Revenue Fund the amount that the Water Commissioner determines.

5.3 Capital Expenses and Payments from Construction Fund

Construction Fund moneys are available primarily for payment of capital expenditures in respect of the System. For an expenditure to qualify as capital and payable from the Bond Proceeds Account or the Capital Account of the Construction Fund, it must satisfy the requirements contained in (i) State law, specifically the Revenue Bond Act and the General Bond Ordinance, (ii) the Water Department's standards for defining capital assets, which may be found in the City's Annual Comprehensive Financial Report for Fiscal Year Ended June 30, 2023, Note 6 (Capital Assets)[19], and (iii) with respect to tax-exempt Bond proceeds, the Federal tax law (i.e., the Code). Essentially, capital expenditures are investments in the System, i.e., payment of costs of the acquisition or construction of new assets, or the replacement or improvement of existing assets, to maintain and expand the System. Except in the very limited circumstances described under ***5.4 (Sources for Payment of Operating Expenses in Event of Revenue Fund Deficiency)***, operating expenses are not payable from the Construction Fund.

Federal Tax Law Concerning Tax-Exempt Bonds

Tax-exempt bonds generally provide the lowest cost debt for the City to finance capital projects because holders of tax-exempt bonds are permitted under the Code (and Pennsylvania income tax law) to exclude the interest earnings on their bonds from income for tax purposes. Holders then can pass all or a portion of those savings back to the City in the form of a reduced rate of interest as compared to a taxable

[19] They also may be found in the Annual Financial Report for Fiscal Year Ended June 30, 2024, Note 6 (Capital Assets). As of the date hereof the ACFR for FYE 2024 is not available.

loan. The exclusion from income and resulting reduced cost of borrowing described above constitute an indirect subsidy from the U.S. Treasury to the City to offset the City's infrastructure costs. As such, of the City's total System debt outstanding, an overwhelming portion is funded from tax-exempt bonds.[20]

This federal subsidy is a scarce resource given for a singular purpose: to support state and local funding of public infrastructure. The distribution of this subsidy is heavily regulated to ensure that that purpose is met. More specifically, the Code restricts the purposes for which proceeds of tax-exempt Bonds and any earnings thereon[21] may be expended to the acquisition, construction, improvement or equipping of facilities that are owned or controlled by the City and fulfill a governmental purpose. So tax-exempt Bond proceeds are used only to fund capital expenditures of the System. They may not be used to pay operating expenses of the Water Department.

Guidance under the Code for determining capital expenditures versus operating expenses is generally given in the context of a taxpayer who seeks a deduction in the current year, rather than a political subdivision not subject to paying federal tax. That said, in general, under the Code a project cost is capitalized if it purchases an asset with a useful life of more than one year or extends the life of an asset for at least an additional year.[22] Expenses that are ordinary and recurring are not capitalized.[23] Some capital expenditures specifically identified in the Code that we expect are applicable to the operation of the System include (without limitation) paying costs of acquisition or construction of new buildings or permanent improvements and equipment having a useful life substantially beyond the current year, as well as the cost of defending or perfecting title to property.[24] Costs of removal or retirement of a depreciable asset in connection with the construction, development, improvement or installation of a replacement asset is not capitalized as part of the cost of the replacement asset.[25] However, costs of demolishing a building must be capitalized into the value of the land on which it was located.[26]

State Law

First Class City Revenue Bond Act. The Revenue Bond Act contains comprehensive statutory authority for the City[27] to finance self-funding infrastructure through the issuance of special obligations of the City (i.e., revenue bonds or notes).[28] Under the Revenue Bond Act, the City may finance "project costs" through the issuance of debt payable solely from revenues generated by such projects. For purposes of the Revenue Bond Act, "project costs" include all costs of construction or acquisition of a project with proper allowance for contingencies determined in accordance with generally accepted

[20] Pennvest Loans are funded from tax-exempt bonds issued by Pennvest for the purpose of making such loans.

[21] Under the Code, investment earnings on tax-exempt bond proceeds (referred to as "investment proceeds") generally are treated as bond proceeds.

[22] *See INDOPCO Inc. v. Comr,* 503 U.S. 79 (1992).

[23] IRC § 162(a).

[24] *See* IRC § 263; Treas. Regs. §§ 1.263(a)-1 and 1.263(a)-2.

[25] *See* Rev. Rul. 2000-7 relating to IRC § 263.

[26] *See* IRC § 280C.

[27] The City of Philadelphia is the only first class city of the Commonwealth of Pennsylvania. *See* 53 P.S. § 12101 *et seq*.

[28] *See* Section 3 of the Revenue Bond Act.

municipal accounting principles.[29] "Projects" include buildings, structures, facilities or improvements of a public nature, related estates in land, and related furnishings or equipment, which the City is authorized to own, construct, acquire, improve, lease, operate, maintain or support, and in respect of which the City may reasonably be expected to receive project revenues.

General Bond Ordinance. The City enacted the General Bond Ordinance under the authority granted under the Revenue Bond Act.[30] As such, the provisions of the General Bond Ordinance concerning the City's ability to finance and refinance projects with Bonds are entirely consistent with the provisions of the Revenue Bond Act.

The General Bond Ordinance also establishes a Capital Account of the Construction Fund for purposes of accumulating moneys sufficient, at minimum, to pay project costs for renewals, replacements and improvements to the System as needed to maintain adequate water and wastewater service to the areas that the System serves.

Accounting Standards

The City's standards for defining capital assets may be found in the City's Annual Comprehensive Financial Report for Fiscal Year Ended June 30, 2023, Note 6 (Capital Assets).[31] Briefly summarized, capital assets include property, plant, equipment and infrastructure assets with an initial individual cost in excess of $10,000 for personal property and $100,000 for fixed assets, and an estimated useful life in excess of three years.

5.4 Sources for Payment of Operating Expenses in Event of Revenue Fund Deficiency

The first priority for the Revenue Fund is timely payment of Operating Expenses. Operating Expenses must be paid first in order to ensure that the System continues to generate Project Revenues to repay debt and for all of the other purposes mandated by the General Bond Ordinance. To this end, to the extent that at any time amounts in the Revenue Fund are insufficient to pay Operating Expenses when due, the General Bond Ordinance provides for the use of moneys in certain other funds and accounts, including the Residual Fund, the Rate Stabilization Fund and the Capital Account of the Construction Fund, for this purpose.

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[29] As defined in the Revenue Bond Act, the term "project costs" may include but is not limited to costs of preliminary studies, surveys, planning, testing and design work; fees and expenses of engineers, architects, financial advisors, attorneys and other experts engaged in connection with the project; financing costs including bond discount, interest on money borrowed to finance the project if capitalized and operating capital during construction and for one year after completion of the project; capitalized reserves, the repayment of temporary loans or the payment of bond anticipation notes made or issued in connection with the project, and any of the foregoing incurred or paid prior to as well as after the issuance of revenue bonds.

[30] *See* Section 4 of the Revenue Bond Act.

[31] They also may be found in the Annual Financial Report for Fiscal Year Ended June 30, 2024, Note 6 (Capital Assets). As of the date hereof, the ACFR for FYE 2024 is not available.

From Residual Fund

Payment of Operating Expenses is the first purpose listed in the General Bond Ordinance for which moneys in the Residual Fund may be used.
(GBO Section 4.12(i))

Temporary Loans

The General Bond Ordinance permits the City to make temporary loans from the Residual Fund, Rate Stabilization Fund and Capital Account of the Construction Fund to the Revenue Fund if, at any time, amounts in the Revenue Fund are insufficient both to pay Operating Expenses and to make the transfers described in ***5.1*** **(*The Waterfall*)** above. Such loans are limited to the amount of any such deficiency. Such loans must be repaid when or before such loaned amounts are required by the Water Department for the purposes of the Fund making the loan. The terminology "temporary loan" connotes that the amounts transferred under these provisions of the General Bond Ordinance are not re-counted as revenues, and are to be replenished not later than when they are needed for the purposes of the respective fund or account.
(GBO Section 4.05, 4.11)

5.5 Sources for Payment of Debt Obligations in Event of Debt Service Account Deficiency

The second priority for the Revenue Fund is the transfer of moneys to the Sinking Fund to ensure timely payment of debt service and redemption price on Bonds (other than Subordinated Bonds) and related obligations such as credit facility and swap payments. If at any time Project Revenues from the Revenue Fund are insufficient to make the necessary deposit into the Debt Service Account of the Sinking Fund in order to pay all principal or redemption price of and interest on Bonds (other than Subordinated Bonds) and related obligations when due, the General Bond Ordinance provides for the transfer by the Fiscal Agent to the Debt Service Account of amounts in other funds and accounts to pay such debt service and other obligations.

Debt Reserve Account of Sinking Fund

The City has directed the Fiscal Agent that if at any time the moneys in the Debt Service Account are insufficient to pay when due, the principal or redemption price of or interest on any Bond or other obligations payable from the Debt Service Account then due (including under Swap Agreements and Credit Facilities), the Fiscal Agent must transfer amounts necessary to cure such deficiency from the Debt Reserve Account to the Debt Service Account.
(GBO Section 4.09)

Residual Fund

The City is permitted, at its discretion, to transfer amounts from the Residual Fund to the Debt Service Account.
(GBO Section 4.12(ii))

Capital Account of Construction Fund

Amounts deposited in the Capital Account may be applied to cure a deficiency in the Sinking Fund, or to purchase Bonds under certain conditions including, among other things, the prior receipt by

the City of a certification by a Consulting Engineer that amounts that will remain on deposit in the Capital Account following the proposed purchase of Bonds will be sufficient to pay the cost of renewals, replacements and improvements to the System projected to be payable during such Fiscal Year.
(GBO Section 4.11)

Subordinated Bond Fund

If at any time the amount in Debt Service Account is insufficient and there not on deposit in the Debt Reserve Account, the Capital Account and the Residual Fund available moneys sufficient to cure such deficiency, then the Fiscal Agent must withdraw from the Subordinated Bond Fund and deposit into the Debt Service Account the amount necessary (or all the moneys in the Subordinated Bond Fund, if they are less than the amount necessary) to eliminate such deficiency.
(GBO Section 4.10)

5.6 Other Permitted Transfers

Temporary Loans to the Construction Fund

The General Bond Ordinance permits the City to make temporary loans from the Revenue Fund, Rate Stabilization Fund and Residual Fund to the Construction Fund if, at any time, amounts in the Construction Fund are insufficient to pay capital expenses due and payable. Such loans are limited to the amount of any such deficiency. Such loans must be repaid when or before such loaned amounts are required by the Water Department for the purposes of the Fund making the loan.
(GBO Section 4.05)

Other Purposes of the Residual Fund

As the Residual Fund is the last bucket in the waterfall, moneys on deposit there are permitted to be used or transferred to almost any of the other Water and Wastewater Funds. In addition to paying Operating Expenses as described above, amounts in the Residual Fund may be used as follows: to fund transfers to any fund or account established under the General Bond Ordinance or under a Supplemental Ordinance (other than the Revenue Fund and the Rate Stabilization Fund); to make payments required under any Exchange Agreement; for the payment of debt service or redemption price on any revenue bonds or notes issued under the Act but not under the General Bond Ordinance or on any general obligation debt of the City (the proceeds of which were applied m respect of the System); for the payment of amounts due under capitalized leases or similar obligations relating to the System; and to fund the transfer of the scoop to the City's General Fund as of June 30 of each Fiscal Year. Amounts in the Residual Fund may not be transferred to the Revenue Fund or the Rate Stabilization Fund.
(GBO Section 4.12)

Subordinated Bond Fund Deficiency

As mentioned previously, amounts deposited in the Capital Account may be used to pay the cost of renewals, replacements and improvements to the System and to cure deficiencies in the Sinking Fund and purchase Bonds. In addition, the City may apply moneys in the Capital Account to cure a deficiency, if any, in the Subordinated Bond Fund. To date, the City has never issued Subordinated Bonds.
(GBO Section 4.11)

5.7 *Credit of Investment Earnings in Funds and Accounts*

The General Bond Ordinance controls how money in the funds and accounts established thereunder may be invested and, more particularly for this discussion, where earnings on such money must be credited. ***5.2 (Other Deposits to the Revenue Fund)*** above highlights only earnings that flow to the Revenue Fund. More broadly, earnings on amounts on deposit in:

(i) the Revenue Fund must be credited to the Revenue Fund;

(ii) the Sinking Fund (except as provided in (iii) below) (A) must be credited to the Sinking Fund to the extent needed to meet Debt Service Requirements in respect of Bonds (other than Subordinated Bonds) and (B) additional interest earnings must be credited to the Revenue Fund;

(iii) the Debt Reserve Account (A) must be credited to the Debt Reserve Account until such account is fully funded and (B) must then be credited to the Residual Fund up to the scoop, and any amount in excess of the scoop must then be transferred to the Revenue Fund;

(iv) the Subordinated Bond Fund must be credited (A) to the Subordinated Bond Fund to the extent needed to meet Debt Service Requirements in respect of Subordinated Bonds and (B) additional interest earnings must be credited to the Revenue Fund or to such other fund or account established under the General Bond Ordinance as the City may direct pursuant to a Supplemental Ordinance;

(v) the Residual Fund must be credited to the Residual Fund;

(vi) the Rate Stabilization Fund must be credited to the Revenue Fund;

(vii) the Construction Fund must be credited to the appropriate account of the Construction Fund or to the Revenue Fund, as the City directs; and

(viii) the Rebate Fund must be credited to the Rebate Fund.
(GBO Section 4.16)

APPENDIX

GLOSSARY OF CERTAIN TERMS USED IN THE GENERAL BOND ORDINANCE

"Act" means The First Class City Revenue Bond Act approved October 18, 1972 (Act No. 234, 53 P.S. § 15901 to 16924) as from time to time amended.

"Balloon Bonds" means any Series of Bonds, or any portion of a Series of Bonds, designated by a Determination as Balloon Bonds, (a) 25% or more of the principal payments (including mandatory sinking fund payments) of which are due in a single year, or (b) 25% or more of the principal of which may, at the option of the holder or holders thereof, be redeemed at one time; provided, however that a Variable Rate Bond that is able to be redeemed at the option of the Holder shall not constitute a Balloon Bond.

"Bond" or "Bonds" means, upon and after issuance of the first Series of bonds under the General Bond Ordinance, if and to the extent Outstanding at any time, all Series of bonds authorized and issued under one or more supplemental ordinances amending and supplementing the General Bond Ordinance.

"Bond Committee" means the Mayor, City Controller and City Solicitor or a majority thereof.

"Bond Counsel" means a firm of nationally recognized bond counsel selected by the City.

"Bondholder" or "Holder" means any registered owner of Bonds or holder of Bonds issued in coupon form at the time Outstanding.

"Capital Account" means the Capital Account within the Construction Fund established in Section 4.04 of the General Bond Ordinance.

"Capital Account Deposit Amount" means an amount equal to one percent (1.0 %) 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.

"Capital Appreciation Bonds" means any Bonds issued under the General Bond Ordinance which do not pay interest either until maturity or until a specified date prior to maturity, but whose Original Value increases periodically by accretion to a final Maturity Value.

"Charges Account" means the Charges Account established within the Sinking Fund to provide for the payment of fees under any Credit Facility to the extent payment of such fees are not otherwise provided.

"City" means the City of Philadelphia, Pennsylvania.

"City Controller" means the head of the City's auditing department as provided by the Philadelphia Home Rule Charter.

"City Solicitor" means the head of the City's law department as provided by the Philadelphia Home Rule Charter.

“Code” or “IRC” means the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder. ·

“Construction Fund” means the Construction Fund established in Section 4.04 of the General Bond Ordinance.

“Consulting Engineer” means a nationally recognized Independent registered consulting engineer or a nationally recognized Independent Firm of registered consulting engineers, in either case having experience in the design and analysis of the operation of water and wastewater systems of the magnitude and scope of the System.

“Credit Facility” means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution.

“Debt Reserve Account” means the Debt Reserve Account of the Sinking Fund established in Section 4.04 of the General Bond Ordinance.

“Debt Reserve Facility” means a surety bond or an insurance policy payable to the Fiscal Agent for the account of the Bondholders and any Qualified Swap or an irrevocable letter of Credit to be used for the purposes contemplated under Section 4.09(e) of the General Bond Ordinance.

“Debt Reserve Requirement” means (i) with respect to all Bonds outstanding (regardless whether interest thereon may be excluded from the gross income of the holder thereof for federal income tax purposes) (a) whose Debt Service Requirements are payable from the Sinking Fund (i.e., excluding Subordinated Bonds) and (b) that are of a Series for which the City has not created a Series Debt Reserve Subaccount, an amount equal to the greatest amount of Debt Service Requirements on such Bonds payable in any one Fiscal Year (except that such Debt Service Requirements will be computed as if any Qualified Swap did not exist and the Debt Service Requirements attributable to any Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Supplemental Ordinance or Determination for such Bonds) determined as of any particular date, and (ii) with respect to the amount to be deposited in the Debt Reserve Account, pursuant to the first paragraph of Section 4.09 the General Bond Ordinance, in connection with the issuance of such a Series of Bonds, the lesser of (x) the amount necessary to comply clause (i) and (y) the maximum amount permitted to be financed with proceeds of Bonds permitted by Section 148(d)(1) the Code (or any successor provision).

“Debt Service Account” means the Debt Service Account of the Sinking Fund established in Section 4.04 of the General Bond Ordinance.

“Debt Service Requirements,” with reference to a specified period, means:

A. amounts required to be paid into any mandatory sinking fund established for the benefit of Bonds during the period;

B. amounts needed to pay the principal or redemption price of Bonds maturing during the period and not to be redeemed at or prior to maturity through any sinking fund established for the Bonds;

C. interest payable on Bonds during the period, with adjustments for capitalized interest or redemption through any sinking fund established for the benefit of Bonds; and

D. all net amounts, if any, due and payable by the City under a Qualified Swap during such period.

For purposes of estimating Debt Service Requirements for any future period, (i) any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond tendered for payment and cancellation before its stated maturity date shall be deemed to accrue on the date required for payment pursuant such tender; and (ii) Debt Service Requirements on Bonds for which the City has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed or variable rate on the Qualified Swap or, if applicable and if greater such stated rate, the applicable rate for any Bonds issued in connection with the Qualified Swap adjusted, the case of a variable rate obligation, as provided in Section 5.01 of the General Bond Ordinance. Calculation of Debt Service Requirements with respect to Variable Rate Bonds and Balloon Bonds shall be subject to adjustment as permitted by Section 5.01(c) of the General Bond Ordinance. .

“Debt Service Withdrawal” means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of principal or redemption price of or interest on Bonds or toward the elimination of a deficiency in any reserve fund established for the benefit of Bonds.

“Determination” means a determination by the Bond Committee regarding certain matters relating to the issuance of a Series of Bonds, made pursuant to the General Bond Ordinance or the Supplemental Ordinance providing for the issuance of such Series of Bonds.

“Exchange Agreement” means, to the extent from time to time permitted by applicable law, any interest exchange agreement, interest rate swap agreement, currency swap agreement or other contract or agreement, other than a Qualified Swap, authorized, recognized and approved by a Supplemental Ordinance or Determination as an Exchange Agreement and providing for (i) certain payments by the City from the Residual Fund and (ii) payments by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose obligations under an Exchange Agreement are guaranteed by an entity whose senior long term debt obligations, other senior secured long term obligations or claims paying ability are rated not less than A3 by Moody’s, A- by S&P or A- by Fitch, or the equivalent the thereof by any successor thereto as of the date the Exchange Agreement is entered into; which payments by the City and counterparty are calculated by reference to fixed or variable rates and constituting a financial accommodation between the City and such counterparty.

“Fiscal Agent” means a bank or other entity designated as such pursuant to Section 7.01 of the General Bond Ordinance or its successor.

“Fiscal Year” means the fiscal year of the City.

“Fitch” means Fitch Investors Service and any successor thereto.

“General Bond Ordinance” means the Restated General Water and Wastewater Revenue Bonds Ordinance of 1989, as amended from time to time by one or more Supplemental Ordinances in-accordance with Article X of the General Bond Ordinance.

“General Obligation Bonds” means the general obligation bonds of the City issued and outstanding from time to time to finance improvements to the System and adjudged, pursuant to the Constitution and laws of the Commonwealth of Pennsylvania, to be self-sustaining on the basis of expected Project Revenues.

“Interdepartmental Charges” means the proportionate charges for services performed for the Water Department by all officers, departments, boards or commissions of the City which are required by the Philadelphia Home Rule Charter to be included in the computation of operating expenses of the Water Department.

“Operating Expenses” for any period means all costs and expenses of the Water Department necessary and appropriate to operate and maintain the System in good operating condition, and shall include, without limitation, salaries and wages, purchases of services by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the System, which is not properly chargeable to property, plant and equipment, pension and welfare plan and worker’s compensation requirements, provisions for claims, refunds and uncollectible receivables and for Interdepartmental Charges, all in accordance with generally accepted accounting principles consistently applied, but Operating Expenses shall exclude depreciation, amortization, interest and sinking fund charges.

“Operating Expense Withdrawal” means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of Operating Expenses.

“Outstanding,” when used with reference to Bonds, means, as of any date, all Bonds heretofore or thereupon being authenticated and delivered under the Ordinance except (i) any Bonds cancelled by the Fiscal Agent at or prior to such date; (ii) Bonds (or portion of Bonds) for the payment or redemption of which moneys, equal to the principal amount, Accreted Value or redemption price thereof, as the case may be, with interest (except to the extent of any Capital Appreciation Bonds) to the date of maturity or redemption date, shall be held in trust under the Ordinance and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in Article VI of the Ordinance or provision satisfactory to the Trustee shall have been made for the giving of such notice; (iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to Article III or Section 6.06 of the General Bond Ordinance; and (iv) Bonds deemed to have been paid as provided in Section 11.01 of the General Bond Ordinance.

“Philadelphia Home Rule Charter” means the Philadelphia Home Rule Charter, as amended or superseded by any new home rule charter, adopted pursuant to authorization of the First Class City Home Rule Act approved April 21, 1949, P.L. 665 §1 et seq. (53 P.S. §13101 et seq.).

“Prior Ordinance” means the General Water and Sewer Revenue Bond Ordinance of 1974 approved May 16, 1974 as amended and supplemented from time to time.

“Project” shall have the meaning assigned to it in the Act, as the same may be amended from time to time.

“Project Revenues” means all rents, rates, fees and charges imposed or charged for the connection to, or use or product of or services generated by the System to the ultimate users or customers thereof. all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, all subsidies or payments payable by Federal, State or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on moneys borrowed to finance costs, chargeable to the System, all grants, payments and contributions made in aid or on account of the System exclusive of grants and similar payments and contributions solely in aid of construction and all accounts, contract rights and general intangibles representing the foregoing.

"Qualified Swap" or "Swap Agreement: means, with respect to a Series of Bonds, any financial arrangement that (i) is entered into by the City with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) provides that (a) the City shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal to the principal amount of the Outstanding Bonds of such Series, and that such entity shall pay to the City an amount based on the interest accruing on a principal amount initially equal to the same principal amount as such Bonds, at either a variable rate of interest or a fixed rate of interest computed according to a formula set forth in such arrangement (which needs not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement or (b) the City shall pay to such entity an amount based on the interest accruing on the principal amount of the Outstanding Bonds of such Series at a variable rate of interest as set forth in the arrangement and that such entity shall pay to the City an amount based on interest accruing on a principal amount equal to the Outstanding Bonds of such Series at an agreed fixed rate (which shall not be the same as the rate on the Bonds) or that one shall pay to the other any net amount due under such agreement; and (iii) which has been designated in writing to the Fiscal Agent by the City as a Qualified Swap with respect to the Bonds.

"Qualified Swap Provider" means, with respect to a Series of Bonds, an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, are rated (at the time the subject Qualified Swap is entered into) at least as high as Aa by Moody's, and *AA* by S&P, or the equivalent thereof by any successor thereto.

"Rate Stabilization Fund" means the Rate Stabilization Fund established in Section 4.04 of the General Bond Ordinance.

"Rating Agency" means any rating service that has issued a credit rating on the Bonds which is in effect at the time in question or, upon discontinuance of any of such rating services, such other nationally recognized rating service or services if any such rating service has issued a credit rating on the Bonds at the request of the City and such credit rating is in effect at the time in question.

"Rebate Fund" means the Rebate Fund established in Section 4.04 of the General Bond Ordinance.

"Residual Fund" means the Residual Fund established in Section 4.04 of the General Bond Ordinance.

"Revenue Fund" means the Revenue Fund establish in Section 4.04 of the General Bond Ordinance.

"Series" when applied to Bonds means, collectively, all of the Bonds of a given issue authorized by Supplemental Ordinance, as provided in the General Bond Ordinance, and may also mean, if appropriate, a subseries of any Series if, for any reason, the City should determine to divide any Series into one or more subseries of Bonds.

"Series Debt Reserve Requirement" means, for any Series of Bonds, the amount, if any, required pursuant to a Supplemental Ordinance or Determination to be reserved and (if such amount is greater than zero dollars ($0)) deposited or maintained in the Series Debt Reserve Subaccount established for such Series of Bonds; provided that such amount may equal zero dollars ($0); and provided further that such amount may not exceed the lesser of (i) the greatest amount of Debt Service Requirements payable on such Series of Bonds in any one Fiscal Year and (ii) the maximum amount permitted to be financed with proceeds of such Series of Bonds permitted by Section 148(d)(1) of the Code (or any successor provision).

"Series Debt Reserve Subaccount" means any subaccount of the Debt Reserve Account created, pursuant to a Supplemental Ordinance or Determination for a particular Series of Bonds, which Series of Bonds will not otherwise be secured by the Debt Reserve Account and for which a Series Debt Reserve Requirement applies.

"Subordinated Bond Fund" means the Subordinated Bond Fund established in Section 4.04 of the General Bond Ordinance.

"System" means the entire combined water system and wastewater system of the City, now existing and hereafter acquired by lease, direct control, purchase or otherwise or constructed by the City, including any interest or participation of the City in any facilities in connection with said System, together with all additions, betterments, extensions and improvements to said System or any part thereof hereafter constructed or acquired and together with all lands, easements, licenses and rights of way of the City and all other works, property or structures of the City and contract rights and other property or structures of the City and· eon tract rights and other tangible and intangible assets of the City now or hereafter owned or used in connection with or related to said System.

"Water and Wastewater Funds" means, collectively, the Revenue Fund, the Sinking Fund, the Subordinated Bond Fund, the Rate Stabilization Fund, the Residual Fund and the Construction Fund.

"Water Commissioner" means the head of the Water Department as provided by the Philadelphia Home Rule Charter.

"Water Department" means the Water Department of the City created pursuant to Section 3-100 of the Philadelphia Home Rule Charter.

Schedule FP-3

Rating Agency Reports

- Moody’s
- S&P
- Fitch

MOODY'S RATINGS

CREDIT OPINION
11 October 2024

Send Your Feedback

Philadelphia (City of) PA Wtr. & Sew. Ent.

Update to credit analysis

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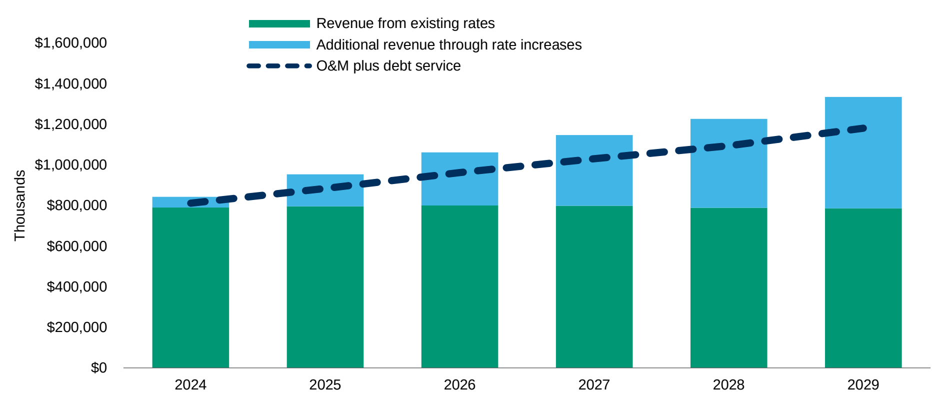
EMEA 44-20-7772-5454

Summary

The Philadelphia Water and Sewer Enterprise, PA (Philadelphia Water Department, A1 stable) will maintain adequate debt service coverage (1.75x in 2023) even as its leverage grows to fund a $4.8 billion capital improvement program. The department plans to issue $500 milion to $700 million of debt annually, meaning the current debt to revenue of about 3x may grow closer to 4x by 2028. The department's forecasts show aggressive annual increases to accommodate this additional debt, and its ability to secure these rate increases from the Philadelphia Rate Board will be crucial to its credit profile going forward. Finally, the rating incorporates various linkages to the City of Philadelphia (A1 stable). While the department has certain insulations built in, it is still an enterprise fund of the city and is managed by appointees of the city.

Exhibit 1

Rate increases will be vital to covering rising debt service in future years



Source: Moody's Ratings, Philadelphia Water

On Oct. 10, we assigned an A1 rating to the Philadelphia Water and Sewer Enterprise's proposed $558.4 million Water and Wastewater Revenue Bonds, Series 2024C, while affirming the A1 ratings on its outstanding debt.

Credit strengths

» Large, dynamic service area consisting mostly of the City of Philadelphia

» Adequate coverage and liquidity

» Demonstrated willingness to increase user rates

Credit challenges

» Substantial capital plan will increase debt burden

» Aggressive rate increases required to preserve financial position

» Demographic challenges in parts of city

Rating outlook

The stable outlook anticipates that the department will continue to aggressively raise user rates in order to accommodate a larger debt burden and preserve its solid financial position.

Factors that could lead to an upgrade

» Consistent coverage above 2x (on a Moody's-adjusted basis)

» Proven ability to address all capital needs while keeping debt at reasonable levels

» Increase in days cash on hand above 350 days, including rate stabilization fund

Factors that could lead to a downgrade

» Coverage below 1.25x (on a Moody's-adjusted basis)

» Indication that rate board will not approve the rate increases necessary to fund the department's capital plan

» Debt to revenue exceeding 5x

Key indicators

Exhibit 2

Philadelphia Water and Sewer Enterprise, PA					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	21 years				
System Size - O&M (in $000s)	$523,495				
Service Area Wealth: MFI % of US median	72.5%				
Legal Provisions					
Rate Covenant (x)	1.20				
Debt Service Reserve Requirement	Funded at MADS (Aaa)				
Management					
Rate Management	A				
Regulatory Compliance and Capital Planning	A				
Financial Strength					
	2019	2020	2021	2022	2023
Operating Revenue ($000)	$746,072	$733,318	$718,572	$766,367	$817,096
System Size - O&M ($000)	$449,522	$463,501	$436,489	$481,777	$523,495
Net Revenues ($000)	$320,604	$293,534	$283,178	$279,167	$329,102
Net Funded Debt ($000)	$1,802,833	$1,953,971	$2,073,530	$2,240,281	$2,481,969
Annual Debt Service ($000)	$177,296	$192,478	$158,397	$182,061	$187,701
Annual Debt Service Coverage (x)	1.81x	1.53x	1.79x	1.53x	1.75x
Cash on Hand	92 days	104 days	151 days	136 days	133 days
Debt to Operating Revenues (x)	2.4	2.7	2.9	2.9	3.04

Note that operating revenue excludes investment earnings, which are included in our net revenues figure. Also, our operations and maintenance expenditures figure does not correspond to the figure in the city's financial statements because we make an adjustment for noncash pension and OPEB expenses.
Source: Moody's Ratings

Profile

The Philadelphia Water Department provides drinking water and wastewater treatment to the City of Philadelphia and some surrounding communities, serving a population of approximately 1.6 million.

Detailed credit considerations

Service area and system characteristics: Dynamic regional economy with challenging demographics

The Philadelphia Water Department's service area consists of a large and dynamic regional economy with a number of powerful institutional anchors in education, healthcare, financial services, media and other industries.

The 10th-largest rated municipal water or sewer utility by revenue, the department draws drinking water from the Delaware and Schuylkill Rivers, and operates two water treatment and three wastewater treatment plants. Total capacity for both water and waster is more than 500 million gallons per day.

Most of the ways we evaluate socioeconomic strength show Philadelphia as weak. Of the 20 biggest Moody's-rated cities by population, Philadelphia ranks last in median household income, and next-to-last in per capita income. Of the 20 biggest Moody's-rated cities in the US, Philadelphia as of 2022 had the highest rates (meaning the weakest) of poverty, unemployment, and households on public assistance or food stamps.

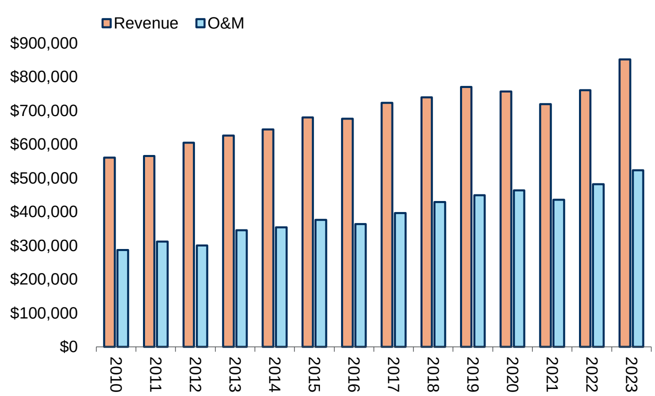
The dynamic of an employment hub with a significant eds and meds presence that also faces a challenging demographic profile will persist for the city indefinitely.

Financial strength: Solid financial performance with good liquidity; debt to increase

The department's consistently solid financial performance will continue because of the department's commitment to hitting its coverage target while maintaining a decent amount of cash in its rate stabilization fund.

Exhibit 3

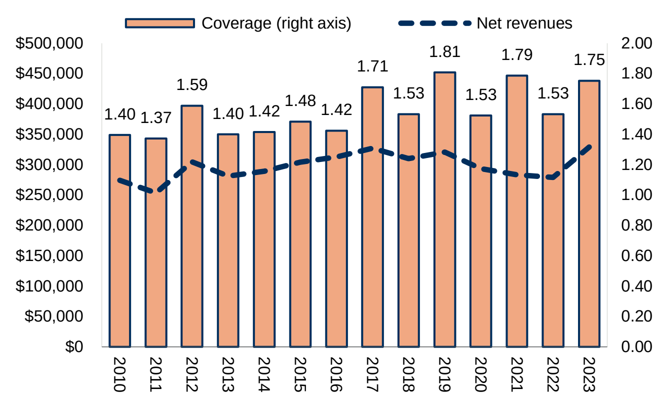
Department consistently generates good net revenues
$ in thousands



Source: Moody's Ratings

Exhibit 4

With adequate debt service coverage
$ in thousands



Source: Moody's Ratings

Coverage is likely to remain in this range because the department's rate covenant requires it to generate sufficient net revenue to cover O&M, debt service, and a capital account deposit of at least 1% of net property, plant and equipment. That capital account deposit requirement, which requires at least some surplus funds be generated each year, combined with conservative budgeting will assure coverage of well more than 1x, though coverage is unlikely to rise much above current levels because of the department's rate-setting process (see management below).

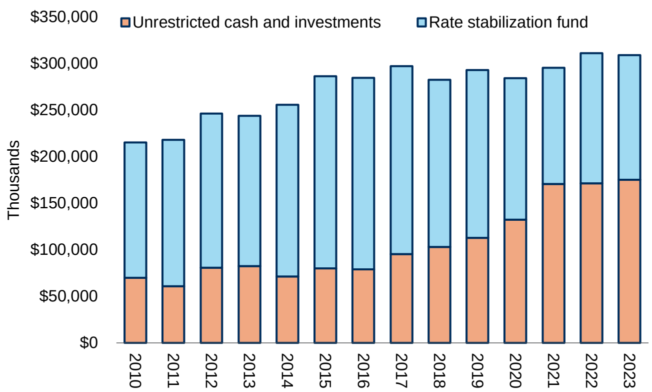
Liquidity

The Philadelphia Water Department holds good liquidity, although many rated municipal utilities hold significantly more.

Our official liquidity metric indicates 133 days cash on hand, based on the department's unrestricted cash. This figure does not include the department's rate stabilization fund, which is technically restricted but is available to the department. Including the cash held in the rate stabilization fund, liquidity is a stronger 236 days cash on hand, which is still below the median for highly rated utilities but is adequate for the department's purposes.

Exhibit 5

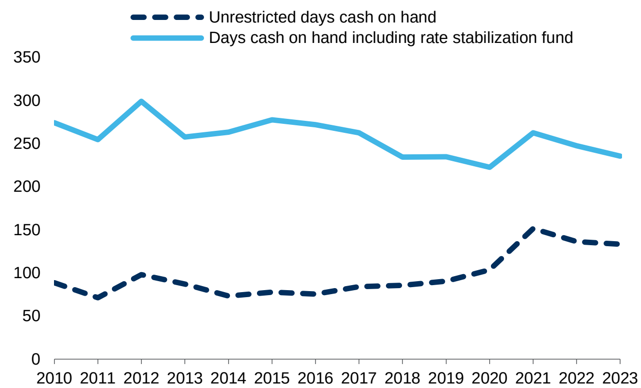
Cash



Source: Philadelphia Water Department

Exhibit 6

Cash on hand



Source: Moody's Ratings

Debt

The department's currently moderate debt of $3.2 billion is equal to about 3x revenue, which is typical for utilities this size (the median debt to revenues for the 50 biggest water/sewer utilities by O&M is 3x). Because the department plans to issue roughly $500 million to $700 million of debt annually to fund its capital program, this debt will increase (annual principal amortization is only about $100 million).

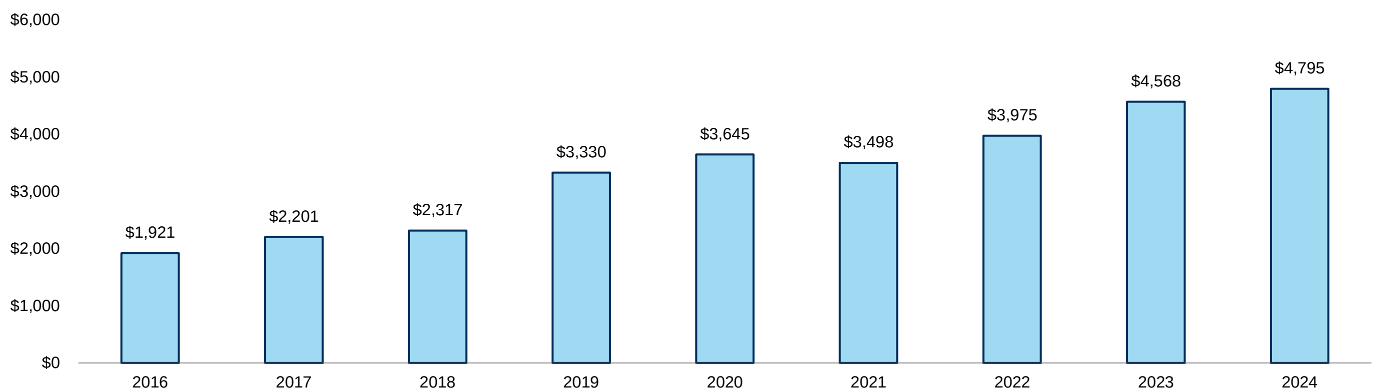
As a result, debt will roughly double from 2023 levels by 2028, and based on the current forecast will increase to closer to 4x revenue. The department's ability to continue increasing its revenue while carrying a greater debt burden will be crucial to its credit profile going forward.

Management: Department will enact aggressive rate increases to cover substantial capital needs

Like any municipal utility as old as Philadelphia's, the department faces substantial capital investment requirements for the foreseeable future. These capital needs imply a need for aggressive rate increases each year, without which the department would have difficulty funding its capital plan.

The department's six-year, $4.8 billion capital improvement program implies nearly $800 million of capex annually, which would be a significant increase from capex up until recently. A little less than a third of the capital plan stems from a consent order related to sewer overflows, but mostly it's replacing aging infrastructure.

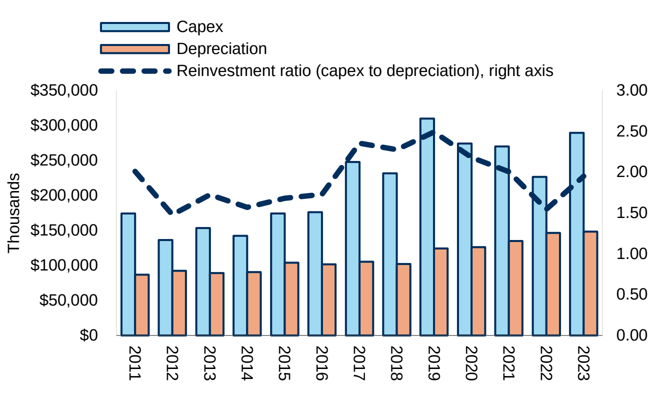
Exhibit 7
6-year capital plan continues to grow
$ in millions



Each year shows the capital budget summary for the six years that follow.
Source: Philadelphia Water Department

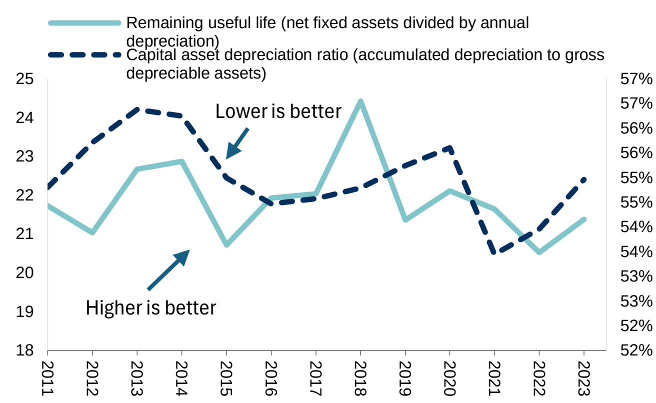
While the traditional ways we use to measure capital adequacy indicate a system with aged infrastructure, this is to be expected for a utility that launched in 1801. Favorably, the department has been investing in its infrastructure, and capital adequacy metrics are stable.

Exhibit 8
Capex has exceeded depreciation



Source: Moody's Ratings

Exhibit 9
Capital adequacy metrics are stable



Source: Moody's Ratings

Funding $800 million of capex annually will require greater revenue, meaning the department will be raising rates considerably each year.

Philadelphia Rate Board

The department's rates are set by the Philadelphia Water, Sewer and Storm Water Rate Board, which the city established in 2014. The five-member board is appointed by the mayor and has at times not approved the full rate increase requested by the department. The board will limit how much surplus the department can accumulate, but pursuant to the rate board ordinance, it must establish rates sufficient for the department to comply with its rate and debt service covenants.

Exhibit 10
Philadelphia Water will continue to request significant rate increases

Year	Increase requested	Increase approved
2017	5.42%	4.52%
2018	5.42%	4.52%
2019	1.60%	1.33%
2020	4.50%	1.20%
2021	6.20%	0%
2022	8.61%	1.85%
2023	5.89%	5.37%
2024	11.02%	9.64%
2025	8.77%	8.16%
2026 (forecast)	13.95%	
2027 (forecast)	7.85%	
2028 (forecast)	9.10%	

The forecast rate increase requests starting in 2026 are based on current projections. Note that the department withdrew its rate increase request in 2021; this request was not rejected by the board.
Source: Philadelphia Water Department

Legal provisions: Rate covenant will assure adequate coverage

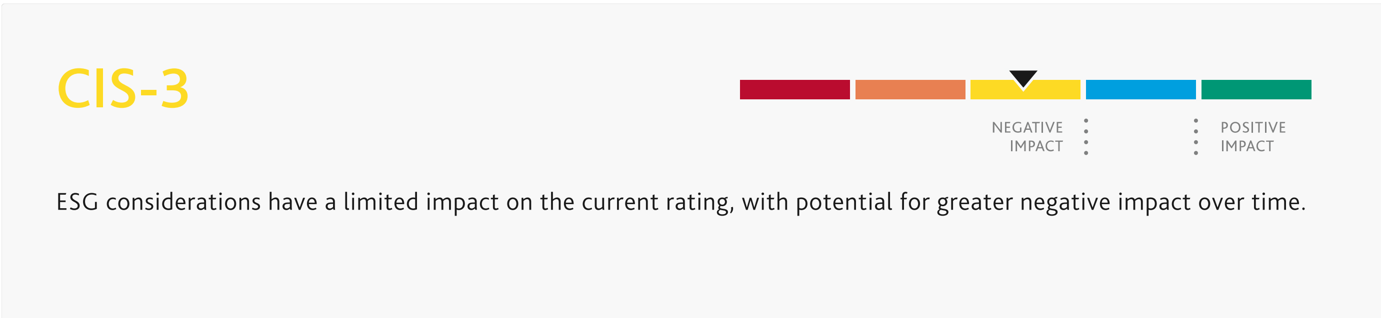
The department has three rate covenants: 1.2x debt service for senior lien debt, 1x all obligations (including the capital transfer described above), and 0.9x debt service excluding transfers from the rate stabilization fund.

It also has a debt reserve reserve fund sized at maximum annual debt service on its bonds.

ESG considerations

Philadelphia (City of) PA Wtr. & Sew. Ent.'s ESG credit impact score is CIS-3

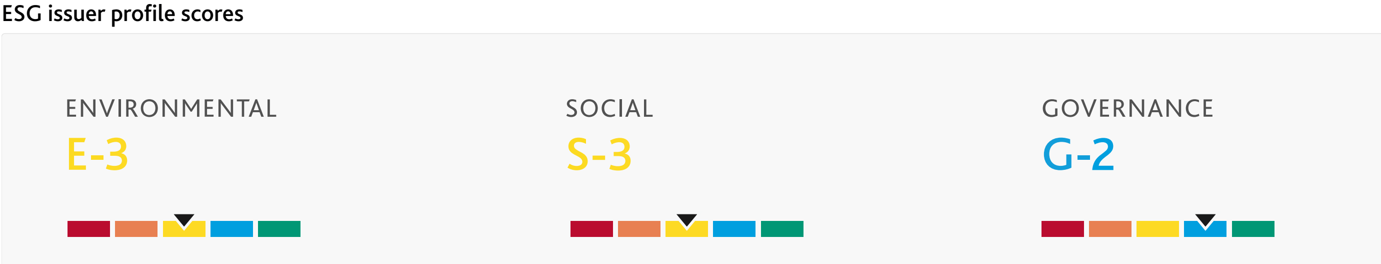
Exhibit 11
ESG credit impact score



Source: Moody's Ratings

Philadelphia Water Department, PA's ESG credit impact score of **CIS-3** indicates that ESG considerations have a moderately negative impact on the department's credit rating due largely to environmental and social considerations.

Exhibit 12
ESG issuer profile scores



Source: Moody's Ratings

Environmental

The department's credit exposure to environmental risks is slightly negative, primarily given moderately negative exposure to water management risk. Wastewater operations face risks of increased operating costs or capital requirements given a large consent order for combined sewer overflows. While the department is more than halfway through its 20-year plan for consent order remediation, the possibility of further costs as well as the need for material rate increases to complete the plan exist. Favorably, the system has not violated any regulations in recent years. The system has low exposure to physical climate risks, carbon transition, natural capital and waste and pollution considerations.

Social

The department's credit exposure to social risks is slightly negative, largely reflecting the city's high poverty and elevated income disparity, which has pressured the department's rate raising ability in the past. The system also has exposure to responsible production risk, which we view as moderately negative across the sector. Water utilities are at risk of health violations resulting from catastrophic events, changes in source water quality, failures in treatment or transmission processes or revised regulations. These risks are balanced by relatively low exposure to health and safety, human capital, and customer relations considerations.

Governance

Philadelphia Water Department has low exposure to governance risk. The system benefits from solid financial strategy and strong risk management considerations, very favorable management credibility and track record considerations. These governance strengths are somewhat offset by slightly negative exposure to board structure. Utilities overseen by a municipal government have moderately negative exposure to board structure, and the department has seen its requests for rate increases curtailed by a municipal rate board. While the department budget management is strong, board oversight somewhat limits the department's financial flexibility.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

REPORT NUMBER 1425849

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

S&P Global Ratings

RatingsDirect®

Summary:

Philadelphia; Water/Sewer

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Secondary Contact:
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Table Of Contents

Summary:
Philadelphia; Water/Sewer

Credit Profile		
US$647.61 mil wtr and wastewtr rev bnds ser 2024C due 09/01/2054		
Long Term Rating	A+/Stable	New
Philadelphia WS		
Long Term Rating	A+/Stable	Affirmed

Credit Highlights

- S&P Global Ratings assigned its 'A+' long-term rating to Philadelphia's anticipated $647.61 million series 2024C water and wastewater revenue bonds.
- At the same time, we affirmed our 'A+' long-term rating and underlying rating (SPUR) on the city's $3.2 billion in outstanding water and wastewater revenue bonds.
- The outlook is stable.

Security

Management indicates the series 2024C bond proceeds will be used for approximately $308 million of capital improvements as well as a market-dependent tender of taxable and tax-exempt bonds.

Securing debt service is pledged collateral, which, in our view, is equivalent to a net revenue pledge of the water and sewer fund. This net revenue pledge includes revenues (net of operating expenses), rates and charges of the system, transfers from the rate stabilization fund (RSF), and interest earnings.

Rates must be set to generate revenues and charges plus transfers from the RSF that represent at least 1.2x annual debt service on senior revenue bonds and 1.0x coverage when including all subordinate debt (if outstanding, of which currently there is none) and certain other transfers. The city can issue additional debt if it complies with the rate covenant at the time of issuance and net revenue projections are sufficient to provide for rate covenant compliance for two fiscal years following the debt issuance. There is an additional provision for both the rate covenant and additional bonds test that requires the city to maintain net system revenues (excluding transfers from the RSF) totaling at least 90% of operating requirements (90% test). While this sets a limit on how much the system can rely on draws from the RSF, we generally view reliance on accumulated cash to meet covenants as permissive. Philadelphia Water Department (PWD) has historically met its 1.2x and 1.0x debt service coverage tests without reliance on the 90% test. If PWD needed to rely on the 90% test to maintain covenant compliance, we would likely lower our rating.

All revenue bonds secured by pledged collateral are further secured by a debt service reserve account funded at maximum annual debt service (MADS).

Credit overview

Our 'A+' rating is underpinned by the tenured management team that has been successful in navigating the city's complex operating and capital environment. The service territory also benefits from its location in a large metropolitan center that serves as an anchor for employment throughout the region, despite facing continued affordability challenges associated with the city's above-average poverty rate. The city has comprehensive and supportive affordability programs and the city's rate board has historically supported rate increases to maintain ample capacity for PWD's operations and capital needs, which we expect will continue. Financial performance is characterized by sound liquidity and relatively narrow, albeit stable, coverage metrics (when accounting for all the utility's obligations).

Future challenges may emerge because of the large capital improvement program (CIP) and rising operating expenses, which are expected to continue given compliance requirements, inflation, and supply chain factors. Consistent with the sector, we expect labor will continue to present challenges to construction progress, operations, and overall expenditures. Management has been proactive in taking steps to retain and attract qualified professionals as well as leveraging consultants where appropriate, which we view favorably. Management has also demonstrated acumen in adjusting its procurement and inventory practices to respond to the changing operating environment.

Credit fundamentals include:

- Service area that benefits from the size and diversity of the growing employment base but faces challenges related to population declines and below-average incomes--although incomes are growing at a faster rate than the nation).
- Comprehensive operational management, which includes water and wastewater master planning (revitalization) documents as well as risk modeling, the application of new technologies to identify deficiencies, and forward-looking planning (such as the Biosolids master planning, which will be undertaken in the fall of this year). We view this as essential given the aged infrastructure and regulatory challenges faced by the system.
- Strong financial policies, which include financial forecasting (five-year plan tied to master planning documents) and prudent budgetary practices as well as policies related to debt, reserves, and investments.
- The city's ability to reprioritize its CIP as needed, with only 20% of the six-year CIP related to regulatory mandates of its consent order and agreement (COA) with the Pennsylvania Department of Environmental Protection (PADEP). In addition, we have observed a good degree of cooperation between state and local officials regarding COA implementation, which we expect will continue.
- Significant unrestricted balances that generally exceed 200 days of operations and exceed $325 million, including a RSF, which should help support PWD's liquidity needs but has been somewhat depleted.
- Demonstrated strengths at mitigating environmental, social, and governmental (ESG) risks through assistance programs, commitment to a significant amount of green infrastructure, and consistent communications of financial trends with the rate board.

Balanced with this flexibility are several ongoing factors that continue to be integral to management's decision-making process regarding rate affordability, adequate funding of capital maintenance, and future debt needs:

- Rate increases for 2024 and 2025 were 9% and 8%, respectively, which was approximately 90% of the amount requested. This is projected to provide 1.25x coverage (with the use of a small portion of the RSF). The relatively narrow margin provides minimal cushion for future revenue or expense deviation, which could result in a greater need for additional unplanned use of the RSF or weakened excess revenues. The city expects to return to its 1.3x coverage target by 2026. The next rate proceeding will begin in the first quarter of 2025.

- Affordability is an ongoing challenge, given that the poverty rate is more than 20%. The city has several payment assistance options available which we view favorably. Customer support is primarily provided by the tiered assistance program (TAP), which caps the bill relative to the ratepayer's income. Participation in the program rose to 56,000 in 2024 from 16,000 in 2023, a reflection of successful efforts to identify those in need and likely a reflection of shrinking disposable income due to inflation and other factors. The city has a surcharge that provides cost recovery for this program, which is trued-up annually (versus base rates, which are filed every two years). The surcharge reconciliation is a credit positive as it allows the city to meet the needs of the most vulnerable rate payers while holding financial performance stable.
- The capital plan is sizable ($4.7 billion) and relatively complex and critical with respect to execution. Addressing aging assets, climate needs, and regulatory considerations is a substantial undertaking. There are several regulatory considerations related to achieving compliance under the separate system permits as well as meeting existing requirements with respect to effluent exceedances and biosolids land application. Deferral of capital spending could result in infrastructure underinvestment, creating additional risks of asset deficiency, climate vulnerability or regulatory fines.

Environmental, social, and governance

We note that because of the ongoing corrective action plan measures and the attention that must be paid to affordability metrics, both environmental and social factors carry outsized risk. PWD's effectiveness to date in addressing these risks is a key component of its operating profile.

Social risks are being addressed with an industry-recognized, multifaceted customer bill-pay assistance program for qualifying customers, including payment programs, bill reductions, and a dedicated surcharge on usage to provide dedicated funding for a portion of the program, which we view as credit supportive. Combined water and sewer rates are about 2.0% of local incomes (including the stormwater fee). The average monthly residential water and sewer bill is about $84, which we consider affordable.

Environmental risks are significant and include maintaining compliance with its COA, maintaining a watershed for a large service area population, and lead service line replacement. Mitigating these risks is a key aspect of management's overall planning, community outreach, and compliance goals, but balancing these proactive efforts with capital and operating costs will remain a critical component of our rating analysis.

We note that the CIP, while large, is supported by operational and financial management that is highly aligned, establishing prioritization among nonmandated projects and, to the extent reasonably possible, includes resilience measures toward climate change and overall risk management that we view as comparable with highly rated large systems.

Governance risks are currently a neutral factor in the rating but could become elevated if future rate increases start to generate lower revenue than management's current projections indicate. Rate board approval is required for all rate increases.

Outlook

The stable outlook is predicated on the city being able to generate margins that are generally in line with current financial projections, while meeting required capital spending. While the outlook also incorporates some planned spend down in the RSF as indicated in PWD's current projections, we would also expect that along with the improving DSC, the RSF reductions will be no greater than what current projections show and that the RSF will be replenished. Our assessment that the financial projections are attainable is based on PWD's historical willingness to adjust rates to meet its financial targets while maintaining compliance with all required covenants.

Downside scenario

If rate increases are insufficient to meet current projections for DSC, we could lower our rating. We could also do so if there is a willingness to permanently reduce liquidity because of unforeseen capital costs or in lieu of rate increases or if failure to invest in infrastructure results in a rise in asset failure or greater exposure to operating vulnerabilities.

Upside scenario

Because of the significant capital needs and sector-wide regulatory, labor and climate challenges, we do not foresee raising the rating during the outlook period. In the longer term, if the city's financial performance returns to targeted levels and management successfully executes its projects--including any required changes to treatment or land application related to PFAS--we could raise the rating.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Ratings Detail (As Of October 8, 2024)		
Philadelphia WS		
Long Term Rating	A+/Stable	Affirmed
Philadelphia WS		
Long Term Rating	A+/Stable	Affirmed
Philadelphia WS (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Philadelphia WS (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Philadelphia WS (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Philadelphia WS (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Philadelphia WS (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed

Ratings Detail (As Of October 8, 2024) (cont.)		
Philadelphia WS (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Philadelphia W/S (BAM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.spglobal.com/ratings for further information. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.spglobal.com/ratings.

FitchRatings

RATING ACTION COMMENTARY

Fitch Rates Philadelphia (PA) Water and Wastewater Revs 'A+'; Outlook Stable

Fri 11 Oct, 2024 - 4:28 PM ET

Fitch Ratings - New York - 11 Oct 2024: Fitch Ratings has assigned an 'A+' rating to the following Philadelphia, PA (the city) revenue bonds:

--Approximately $558.4 million water and wastewater revenue bonds, series 2024C.

The bonds are anticipated to be sold via negotiation the week of October 28th. Proceeds will be used to fund a portion of the capital improvement program, fund a deposit to the debt reserve account, refund via an invitation to tender a portion of outstanding water and wastewater revenue bonds, and pay issuance costs.

Additionally, Fitch has affirmed the 'A+' rating on the following:

--Approximately $2.9 billion (pre-refunding) outstanding water and wastewater revenue bonds.

Fitch has also assessed the standalone credit profile (SCP) of the Philadelphia Water Department (PWD or the system) at 'a+'. The SCP represents the credit profile of the system on a standalone basis irrespective of its relationship with and credit quality of, the city (Issuer Default Rating [IDR] A+/Stable).

The Rating Outlook is Stable.

RATING ACTIONS

ENTITY / DEBT	RATING	PRIOR

Philadelphia (PA) [Water, Sewer]

Philadelphia (PA) /Water & Sewer Revenues/1 LT	LT	A+ Rating Outlook Stable	Affirmed	A+ Rating Outlook Stable

VIEW ADDITIONAL RATING DETAILS

The 'A+' revenue bond rating and 'a+' SCP reflect the system's 'Strong' financial profile in the context of its 'Strong' revenue defensibility assessed at 'a' and a 'Very Strong' operating risk profile assessed at 'aa'. The system's leverage, measured as net adjusted debt to adjusted funds available for debt service (FADS), was moderate at 8.3x in fiscal 2023 (FYE June 30) but is projected to approach10.0x over the five-year horizon in Fitch's Analytical Stress Test (FAST) rating case, which remains consistent with the current rating.

Significant rate increases, approved by an independent rate-setting board, are needed over the forecast period to maintain and improve system assets and comply with a state consent order and agreement (COA). The operating risk profile reflects capital investment needs, expected to remain elevated due to long-term asset rehabilitation and efforts to address combined sewer overflows (CSOs) and master plan execution. Leverage may slightly increase over the next few fiscal years but should still support the 'a' financial profile assessment. However, the rating could come under pressure if recommended rate increases are delayed or capital needs continue to grow.

SECURITY

The bonds are secured by a senior lien on combined net revenues of the PWD's water and sewer system and a debt reserve account funded in the amount of maximum annual debt service

KEY RATING DRIVERS

Revenue Defensibility - 'a'

Midrange Service Area, Affordable Rates for a Significant Majority of the Population

Fitch considers the monthly residential water and sewer bill affordable for about 76% of the service area population based on standard monthly usage of 7,500 gallons for water and 6,000 gallons for sewer. The midrange service area is characterized by average income levels, moderate unemployment rate relative to the nation and midrange customer growth.

Customer growth registered a five-year compound annual growth rate of 0.3% as of fiscal 2023. Income levels are about 23% lower than the national median as of 2022. The unemployment rate has decreased to 4.0% since 2020. However, it was 17% more than the national average in 2023.

Rate Oversight and Structure: Since the establishment of the Philadelphia Water, Sewer, and Storm Water Rate Board (the rate board) in 2014, the city council no longer has direct approval and sole control over PWD's rates. The mayor appoints the rate board's five members, and the city council must approve them. Various parties can appeal the rate board's decisions. Although the process is time-consuming and typically results in lower-than-requested rate increases, the department indicates the process is collegial. The fiscal 2024 and 2025 rate determinations of 7.85% and 8.14%, respectively, are the largest approved increases to date.

Operating Risk - 'aa'

Very Low Operating Cost Burden, Elevated Investment Needs, Supported by Adequate Capital Investment

In fiscal 2023, the system's operating cost burden was considered very low at $2,805 per million gallons (mg), consistent with the operating risk assessment. The life cycle ratio is elevated at 48% in fiscal 2023. Capex to depreciation has been robust averaging 205% over the last five fiscal years from 2019 to 2023. Planned capital spending for the next five years should generally outpace historical depreciation, resulting in a stable to improving life cycle ratio.

The city prepares a six-year capital improvement plan (CIP), with fiscal 2025 through 2030 budgeted spending of $4.8 billion. System reinvestment remains the focus. Water Revitalization Plan (WRP) projects total about $801 million, with another $1.2 billion for water treatment and supply facilities. COA spending is about $1.3 billion or approximately 28% of the total plan. Funding is about 89% debt financed with the remainder pay-go. Typical of most large, mature, urban combined utilities facing CSO mitigation and long-term renewal and replacement issues, PWD's capital improvement program is anticipated to remain substantial.

Financial Profile - 'a'

Leverage to Increase: The system had moderate leverage of 8.3x as of fiscal 2023, slightly below the 8.7x average of the prior four fiscal years. The liquidity profile is neutral to the overall assessment with current days cash on hand of 133 and coverage of full obligations (COFO) of 1.6x. Fitch-calculated total debt service coverage was 1.9x in fiscal 2023.

The FAST considers the potential trend of key ratios in a base case and stress scenario over a five-year period. The stress scenario is designed to impose capital costs 10% above expected base case levels and evaluate potential variability in projected key ratios. The FAST reflects Fitch's view of a reasonable scenario, which is generally informed by publicly available and/or management provided information with respect to capital expenditures, user charges and rate of revenue and expenditure growth.

In the base case scenario, the leverage ratio is expected to increase to 9.0x through fiscal 2028. In the stress scenario, which is considered the rating case, the leverage ratio is projected to increase to 9.7x over the next five years. The liquidity profile is expected to remain neutral to the assessment over the five-year horizon.

The leverage trend depends on substantial rate increases that increase FADS. If necessary approvals for projected rate increases are not obtained, Fitch expects PWD to adjust operating or capital spending, and related debt plans to meet internal financial targets and maintain leverage consistent with the current assessment. Failure to make necessary adjustments while complying with regulatory mandates would pressure the rating.

Asymmetric Additional Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

--Leverage sustained above 10.0x in Fitch's rating case scenario, provided maintenance of current revenue defensibility and operating risk assessments;

--Failure to secure rate increases in a timely manner to sufficiently support capital plan needs;

--Deterioration in the revenue defensibility assessment, raising the hurdle for leverage at the current rating.

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

--Leverage sustained below 8.0x in Fitch's rating case scenario, provided maintenance of current revenue defensibility and operating risk assessments;

--Improvement in the revenue defensibility assessment driven by an improved assessment of service area characteristics.

PROFILE

PWD provides potable water to all of the approximately 1.6 million residents of the city and accounts in neighboring Montgomery and Delaware Counties per a wholesale agreement. PWD also provides wastewater collection and treatment to a service area that includes the city, and portions of the surrounding counties through wholesale contracts, serving a larger population estimated at nearly 2.3 million.

Water treatment is provided by three water treatment plants. Combined capacity is 546 million gallons per day (mgd). Ample water supply is provided by the Delaware and Schuylkill rivers with average daily water demand comfortably below permitted levels. Water consumption typically equals about one-half of the city's capacity and nearly one-third the combined withdrawal (680 mgd) permitted from both water supply sources.

Three water pollution control plants provide wastewater collection and treatment, including biosolids treatment and disposal with combined capacity of 522 mgd or about 85% of demand. PWD anticipates increasing peak capacity by 50 mgd at its Southwest water pollution control plant, currently planned for 2031.

The city continues to operate under a COA signed in 2011 with the Pennsylvania Department of Environmental Protection. The COA requires PWD to address CSOs over a 25-year period ending in 2036. Recent total cost estimates of the program, which began in 2012, are approximately $4.5 billion ($3.5 billion capital-related, $1.0 billion O&M). The city reports it is on track to meet the next milestones, which have a deadline of June 2026.

Fitch considers the system a related entity to the city for rating purposes, given the city's oversight of the system, including its management of operations and approving appointment of rate board members. The credit quality of the city does not currently constrain the bond rating. However, as a related entity, the issue rating could become constrained by a material decline in the general credit quality of the city.

Updated U. S. Environmental Protection Agency (EPA) Regulations

The city is addressing new regulations set forth by the EPA. The EPA's enhanced focus on lead and copper lines and per-and-polyfluoroalkyl (PFAS) contaminants has led to the finalized Lead and Copper Rule Improvements (LCRI) along with specific testing requirements for PFAS.

Regarding the LCRI revisions, a complete inventory should be filed by the October 2024 deadline. No utility lead service lines have been identified, but the city continues to replace any residential lines uncovered during water main replacements. Based on PFAS sampling results, certain compounds have registered above the regulated maximum contaminant levels at two of the three water treatment plants. Pilot testing of powdered activated carbon is underway.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.

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APPLICABLE CRITERIA

U.S. Public Sector, Revenue-Supported Entities Rating Criteria (pub. 12 Jan 2024) (including rating assumption sensitivity)

U.S. Water and Sewer Rating Criteria (pub. 29 Feb 2024) (including rating assumption sensitivity)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

Solicitation Status

Endorsement Policy

ENDORSEMENT STATUS

Philadelphia (PA)	EU Endorsed, UK Endorsed

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Schedule FP-4: Water Fund Projection Summary
Table 1

City of Philadelphia
Water Operating Fund

Fund Balance Summary

Category	FY'24 Year-End Prelim Final	FY'25 B&V Projected	FY'26 B&V Projected	FY'27 B&V Projected	FY'28 B&V Projected	FY'29 B&V Projected	FY'30 B&V Projected
REVENUES							
Locally Generated Non - Tax Revenues	798,828,206	915,089,741	1,018,780,739	1,083,900,914	1,149,600,920	1,228,805,976	1,322,943,188
Other Governments	2,099,683	1,428,533	1,428,533	1,428,533	1,428,533	1,428,533	1,428,533
Revenue from Other Funds of City - General Fund	36,759,020						
Revenue from Other Funds of City - Rate Stabilization Fund	8,200,000	12,193,226	0	0	0	0	0
Total Revenues and Other Sources	**845,886,909**	**928,711,499**	**1,020,209,271**	**1,085,329,447**	**1,151,029,452**	**1,230,234,509**	**1,324,371,721**
Category	**FY'24 Year-End Prelim Final**	**FY'25 B&V Projected**	**FY'26 B&V Projected**	**FY'27 B&V Projected**	**FY'28 B&V Projected**	**FY'29 B&V Projected**	**FY'30 B&V Projected**
OBLIGATIONS / APPROPRIATIONS							
Personal Services	179,054,647	190,650,989	200,283,209	211,943,955	221,388,220	231,305,987	241,600,028
Personal Services - Pension	73,380,830	71,951,048	73,634,826	74,830,712	74,860,572	74,918,433	74,958,293
Personal Services - Other Employee Benefits	70,164,023	79,474,874	83,774,243	87,657,832	92,000,060	96,589,716	100,846,187
Sub-Total Employee Compensation	322,599,500	342,076,911	357,692,278	374,432,499	388,248,852	402,814,136	417,404,508
Purchase of Services	179,692,736	200,583,139	217,419,767	234,217,597	242,871,534	251,884,830	261,272,444
Purchases of Services - Electricity	16,205,644	20,134,076	21,442,791	22,021,747	22,550,269	23,136,576	23,876,946
Purchases of Services - Gas	4,850,000	7,187,268	7,309,452	7,652,996	7,882,586	8,056,003	8,225,179
Sub-Total Purchase of Services	200,748,380	227,904,484	246,172,010	263,892,340	273,304,388	283,077,408	293,374,569
Materials, Supplies	28,330,514	40,046,020	45,024,138	46,424,149	48,502,177	50,674,821	52,946,475
Equipment	7,607,642						
Materials - Chemicals	49,820,731	54,805,313	54,805,313	54,805,313	56,959,162	59,197,657	61,524,125
Sub Total -Materials, Supplies and Equipment	85,758,887	94,851,333	99,829,451	101,229,462	105,461,339	109,872,478	114,470,599
Contributions, Indemnities and Taxes	6,625,687	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000
UESF	500,000						
Indemnities	6,125,687						
Debt Service	209,693,874	238,420,217	258,291,813	282,587,565	312,318,934	351,773,010	403,182,146
Transfer to Escrow / Abritrage Payments							
Sub Total Debt Service	209,693,874	238,420,217	258,291,813	282,587,565	312,318,934	351,773,010	403,182,146
Advances and Miscellaneous Payments			-	-	-		
Payment to Other Funds - Net of Payment to Rate Stabilization Fund	56,919,216	59,816,299	81,878,363	97,352,430	106,705,241	119,085,264	135,074,535
Payments to Other Funds - Rate Stabilization Fund		-	13,411,856	4,088,066	5,036,502	5,520,197	4,731,290
Total Obligations / Appropriations	**882,345,544**	**970,069,243**	**1,064,275,771**	**1,130,582,362**	**1,198,075,256**	**1,279,142,494**	**1,375,237,648**
Operating Surplus / (Deficit)	**(36,458,634)**	**(41,357,744)**	**(44,066,500)**	**(45,252,915)**	**(47,045,804)**	**(48,907,985)**	**(50,865,927)**
OPERATIONS IN RESPECT TO PRIOR FISCAL YEARS							
Net Adjustments - Prior Year (Liquidated Encumbrance)	36,458,634	41,357,744	44,066,500	45,252,915	47,045,804	48,907,985	50,865,927
Total Net Adjustments	**36,458,634**	**41,357,744**	**44,066,500**	**45,252,915**	**47,045,804**	**48,907,985**	**50,865,927**
Year End Balance	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Category PAYMENTS TO OTHER FUNDS	FY'24 Year-End Prelim Final	FY'25 B&V Projected	FY'26 B&V Projected	FY'27 B&V Projected	FY'28 B&V Projected	FY'29 B&V Projected	FY'30 B&V Projected
Payment to Other Funds - Net of Payment to Rate Stabilization Fund							
Capital Account Deposit	31,708,730	34,361,780	36,290,006	38,326,435	40,477,140	42,748,532	45,147,384
Residual Fund Transfer to Capital	13,420,636	17,454,933	33,509,057	46,538,415	53,218,540	62,783,371	75,807,260
Transfer to GF for Services	11,789,850	7,999,587	12,079,300	12,487,580	13,009,561	13,553,361	14,119,891
Total	56,919,216	59,816,299	81,878,363	97,352,430	106,705,241	119,085,264	135,074,535

Philadelphia Water Department
Schedule FP-5

Ratemaking And Financial Requirements
Ratemaking Methodology
Development of Revenue Requirements

RATE-MAKING AND FINANCIAL REQUIREMENTS

Philadelphia Home Rule Charter

The Philadelphia Home Rule Charter ("Charter") was amended in 2012 to allow City Council to establish, by ordinance, an independent ratemaking body responsible for fixing and regulating rates and charges for water and wastewater services (referred to in this testimony as the "Rate Board"), and open and transparent processes and procedures for fixing and regulating those rates and charges, including ratemaking standards (hereinafter, the "Rate Ordinance").

The Charter requires that the Rate Board fix and regulate rates and charges for supplying water, wastewater, and stormwater services in accordance with standards established by City Council. Such standards must enable the City to yield from rates and charges an amount at least equal to operating expense and debt service requirements on any debt incurred or about to be incurred for water supply, sewage and sewage disposal purposes. It further provides that in computing operating expenses, there shall be a proportionate charge for all services performed for the Department by all officers, departments, boards or commissions of the City. (See Charter, Section 5-801.)

Rate Ordinance

The Rate Ordinance was enacted and became effective on January 20, 2014, and its substantive provisions are set forth as part of Section 13-101 of the Philadelphia Code. Section 13-101(2) of the Philadelphia Code requires the Department to develop a comprehensive plan ("Financial Stability Plan" or "Financial Plan") in which the Department forecasts capital and operating costs and expenses and corresponding revenue requirements.

The Financial Stability Plan must: (i) forecast capital and operating costs and expenses and corresponding revenue requirements; (ii) identify the strengths and challenges to the Department's overall financial status including the Water Department's credit ratings, planned and actual debt service coverage, capital and operating reserves and utility service benchmarks; and (iii) compare PWD to similar agencies in peer cities in the United States. The Department must submit an updated Financial Stability Plan to City Council every four years and update the plan prior to proposing revisions in rates and charges.

The Department updated its Financial Plan prior to initiating this rate proceeding. The updated Financial Plan is attached as Schedule FP-1.

Section 13-101(4) of the Philadelphia Code, entitled "Standards for Rates and Charges," contains the ratemaking standards established by City Council and applicable to this rate proceeding. This provision, among other things, requires the Rate Board to establish rates and charges sufficient to fund budgeted operating expense and annual debt service obligations from current revenues and to comply with rate covenants and the debt service reserve requirement. It further requires that the rates and charges be developed in accordance with sound utility rate making practices and consistent with industry standards for water, wastewater and stormwater utilities (including standards published by the American Water Works Association and the Water Environmental Federation). Paragraphs (e) and (f) of Section 13-101(4) require special rates and charges to be established for certain categories of customers.

As explained in the direct testimony of Black & Veatch, the proposed rates comply with these requirements. (See PWD Statement 7).

In addition, Section 13-101(4)(b)(i) of the Philadelphia Code requires the Rate Board to: (i) fully consider the Department's Financial Plan, (ii) determine the extent to which current revenue should fund capital expenditures and the minimum level of reserves to be maintained during the rate period based on all relevant information presented including, but not limited to, peer utility practices, best management practices and projected impacts on customer rates, and (iii) set forth such determinations in the Rate Board's written report.

Additional Requirements Applicable to Rate Setting

In the 1989 General Bond Ordinance, the City covenanted with the bondholders that it will impose, charge and collect rates and charges in each fiscal year sufficient to produce annual net revenues which are at least 1.20 times the debt service requirements, excluding the amounts required for subordinated bonds (as defined in the 1989 General Bond Ordinance). In addition, the City's covenants to its bondholders require that net revenues in each fiscal year must be equal to 1.00 times (A) annual debt service requirements for such fiscal year, including the amounts required for subordinated bonds, (B) annual amounts required to be deposited in the debt reserve account, (C) the annual principal or redemption price of interest on General Obligation Bonds payable, (D) the annual debt service requirements on interim debt, and (E) the annual amount of the deposit to the Capital Account (less amounts transferred from the Residual Fund to the Capital Account).

Further, pursuant to the 1989 General Bond Ordinance, the City will, at a minimum, impose, charge and collect in each fiscal year such water and wastewater rents, rates, fees and charges and shall yield Net Revenues (defined for purposes of this covenant particularly, calculated to exclude any amounts transferred from the Rate Stabilization Fund to the Revenue Fund in, or as of the end of, such fiscal year) which will be equal to at least 0.90 times Debt Service Requirements for such fiscal year (excluding principal and interest payments in respect of Subordinated Bonds and transfers from the Rate Stabilization Fund). In this testimony, the above covenants are referred to collectively as the "Rate Covenants."

A failure by the Department (City) to comply with any provision of its revenue bonds or with any Bond Covenant constitutes an event of default as defined under the 1989 General Bond Ordinance (a "Covenant Default"). In the event of a Covenant Default, a bondholder of any of the Department's revenue bonds will be entitled to all the remedies provided under the First Class City Revenue Bond Act (the "Act"). Upon such event, the holders of 25% in aggregate principal amount of the affected series of the Department's revenue bonds may appoint a trustee to represent such bondholders to exercise remedies. Such trustee may, and upon the written request of the holders of 25% in aggregate principal amount of such revenue bonds must, sue the City at law or in equity to enforce the rights of the aforesaid bondholders including, among others, their right to require the City to impose and collect sufficient rates, as required under the 1989 General Bond Ordinance, if the City has failed to do so.

Additional information on the Bond Covenants is provided in the Bond Counsel Memorandum, which is attached as Schedule FP-2. In addition, further discussion of rate setting, the Rate Board and the Rate Ordinance can be found in the "RATES" Section of PWD Exhibit 5.

RATE-MAKING METHODOLOGY

The Department's rates are set using the cash basis of accounting. Under this basis, revenues are recorded on a receipt basis, except revenues from other governments and interest. Expenditures are recognized and recorded as expenses at the time they are paid or encumbered, except debt service which are recorded when paid.

The Department is one of the operating departments of the City and is a "government-owned utility" as defined in AWWA's M1 Manual." For government-owned utilities, the initial measure of whether revenues under existing rates are adequate is made to determine whether such revenues are sufficient to meet the utility's cash requirements for the study period. The Department has no shareholders and does not pay a dividend or rate of return to the City as the owner of the water and wastewater systems. Virtually all the funds needed to run the operations of the Department come from ratepayers or from proceeds of debt borrowing.

The cost of borrowing must be paid by ratepayers. Therefore, the rates and charges are set by determining the appropriate levels of cash, debt service coverage and other financial metrics necessary to enable the Department to pay its bills and maintain efficient access to the capital markets at reasonable rates.

Cash-on-hand is the total amount of any accessible cash that a business has available at a certain time. As a "cash flow" entity, the Department's operations are entirely funded from rates, either indirectly as a result of short-term or long-term borrowing (which then must be paid back by ratepayers) or directly through charges to customers. So, one of the Department's most important financial metrics are end of year days cash on hand; and, separately, liquidity balance.

Cash is vital so that the Department can meet unforeseen financial challenges and financial requirements. The Engineering Report, which is part of PWD Exhibit 5, echoes that point. It states that the "Department needs to continue to carefully monitor its revenue and collections and manage its business operations to ensure that it appropriately meets projected payments and achieves the Rate Covenant requirements of the General Ordinance."

Without adequate cash, the Department will not be able to pay its bills when they are due. That could result in failing to satisfy financial metrics or a violation of the covenants. To avoid those results, the Department would need to adjust its spending to coordinate with the available cash. Doing so, however, would jeopardize the Department's ability to appropriately invest in infrastructure improvements that are needed to maintain system reliability and customer service levels, as further explained in PWD Statements 3 and 4A.

DEVELOPMENT OF REVENUE REQUIREMENTS

Projected Revenue Requirements

The Department initially develops projected revenue requirements for future fiscal years in the same manner as in the two previous general rate proceedings before the Rate Board. The Department's approved operating budget for Fiscal Year 2025 is used as a starting point for developing projected revenues and expenses anticipated as of Fiscal Year 2026 and Fiscal Year 2027. The Department's rate consultant, Black & Veatch, then used the budget data with specific adjustments as inputs to its financial cost-of-service model it developed to determine appropriate rates and charges for the Department.

Various City departments and agencies provide operational support to the Department, for which they receive a direct appropriation at the beginning of each fiscal year ("Direct Appropriation") or interfund transfer during the fiscal year from the Water Department's operating budget. These departments include: the Revenue Department (Water Revenue Bureau or "WRB") for meter reading, billing and collection services; the Law Department for legal services; the Department of Public Property for the rental of office space and parking; the Office of Fleet Management for vehicle acquisition, fuel, and vehicle maintenance; the Office of Innovation and Technology for communications and computer support services; the Procurement Department for services related to the acquisition of goods and services; the Office of the Director of Finance for fringe benefits, indemnities and support services; the Sinking Fund Commission for the payment of debt service; the Philadelphia Fire Department for inspection and testing of City fire hydrants and inspection of industrial facilities required under the City's Municipal Separate Storm Sewer System (MS4) Permit from the Pennsylvania Department of Environmental Protection; the Office of

Sustainability for energy procurement services; the Office of Transportation and Infrastructure; and the Rate Board.

Operating Budget

The Department, like all other City departments, submits a proposed budget for the following year to the Office of the Director of Finance Budget Bureau and the City's Managing Director's Office for consideration and inclusion in the Mayor's proposed annual operating budget. The Department began preparation of its operating budget for Fiscal Year 2025 in September 2023, when each of the Department's divisions and the Water Revenue Bureau submitted their budget proposals setting forth their estimated obligations for Fiscal Year 2025. Revenue estimates were prepared by the Water Revenue Bureau, with support of the Water Department, under the direction of the City's Office of the Director of Finance and the Department.

The Department's Chief Financial Officer, with the assistance of the Financial Planning, Budget and Rates team and with the support of the Water Commissioner, reviewed all the budget proposals of the various Water Department divisions and the Water Revenue Bureau.

On March 31, 2024, Mayor Kenney presented the Fiscal Year 2025 and the Five-Year Financial Plan to City Council. It included expectations for continued economic growth in Philadelphia, with additional revenues available to make investments to tackle Philadelphia's biggest challenges: intergenerational poverty, the need for an improving education system, and violence and public safety crises that threaten lives and disrupt our cherished communities. The Mayor then submitted the Department's proposed budget as part of the City's proposed revised operating budget for Fiscal Year 2025, which was submitted to City Council. The City's Fiscal

Year 2025 annual operating budget was approved by City Council on June 13, 2024, and was signed by the Mayor.

Additional information of the Fiscal Year 2025 budget is available at:

https://phlcouncil.com/budget2025/ and

https://www.phila.gov/departments/office-of-the-director-of-finance/financial-reports/#/

Capital Improvement Program and Capital Budget

The Water Department updates its Capital Improvement Program and capital budget annually as part of its annual budget process. The Department began preparing its capital budget request for Fiscal Year 2025 in September 2024. The capital budget was approved by the City Planning Commission and the Mayor's Office and included in the City's capital budget for Fiscal Year 2025 and Six-Year Capital Program for Fiscal Years 2025-2030, all of which were submitted to City Council for adoption. The City's capital budget for Fiscal Year 2025 and its Six-Year Capital Program were approved by City Council on June 13, 2024, and were signed by the Mayor.

Additional information of the Fiscal Year 2025 capital budget is available at:

https://www.phila.gov/departments/office-of-the-director-of-finance/financial-reports/#/

Water Fund

The Water Fund is an accounting convention established pursuant to the General Bond Ordinance for accounting for the assets, liabilities, revenues, expenses, and Rate Covenant compliance for the City's water and wastewater systems. The operations of the Water Department are accounted for in the Water Fund, which is an enterprise fund of the City.

For purposes of rate setting, calculating compliance with the Rate Covenant and debt service coverage and budgeting, the Water Fund accounts are maintained on a cash basis of accounting, also referred to as the "Legally Enacted Basis." Under this basis, revenues are recorded on a receipts basis, except revenues from other governments and interest, which are accrued as earned.

Schedule FP-4 is the Water Fund Projection Summary for the Water Operating Fund. The column labeled "FY'19 Year-End Final" summarizes the Department's final revenues, obligations/appropriations, adjustments and balances for Fiscal Year 2019. The column labeled "FY'20 Year-End Prelim" contains the same preliminary (unaudited) information for Fiscal Year 2020. The column labeled "FY'21 B&V Projected Budget" summarizes the same information as budgeted for the Department in the City's Fiscal Year 2021 annual operating budget, updated as part of the cost of service study reflecting various spend factors and other adjustments.

As explained by the testimony of Black & Veatch (PWD Statement 7), for purposes of developing projections for the Rate Period, further adjustments were made to the budgeted data, where necessary, to ensure that the projections are representative of the amounts that the Department expects to experience during the Rate Period.

Schedule FP-4 bridges the presentation differences between Black & Veatch schedules and the City's Water Fund budgetary schedules.

Schedule FP-6

Proposed Language and Other Changes

Draft/Proposed changes to the Charity Rate Regulations are explained in PWD Statement 5 and set out in Schedule SMC-2.

Additional proposed language and changes are below:

Section and Title in Rates and Charges	**Proposed Change**
204.0 Enhanced Cap 5.2 Special Customers. 5.3 Eligibility for Charity Rates and Charges. 5.4 Account Review. 5.3 Suspension of Charity Rates and Charges (Groups I and III) 5.6 Hearing. 5.7 No Waiver.	The non-rate provisions for charity customers in Chapter 3, Section 5 will be moved to Chapter 2, Section 204.0. The enhanced CAP regulations at Section 204.0 would be deleted, as shown on PWD Exhibits 3A to 3B. Specific details of the draft/proposed changes to the Charity Rate Regulations are explained in PWD Statement 5 and set out in Schedule SMC-2.

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Philadelphia Water Department
Schedule FP-7

Summary Of Prior Rate Proceedings
Before the Philadelphia Water, Sewer, And Storm Water Rate Board

<u>2024 TAP-R Reconciliation Proceeding</u>

In 2024, the Rate Board conducted a TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate) Reconciliation Proceeding to implement an annual adjustment to TAP-R. The rates charged in Fiscal Year 2025 were increased as a result of the annual adjustment approved by the Rate Board in the 2024 TAP-R Reconciliation Proceeding.

<u>2023 TAP-R Reconciliation Proceeding</u>

In 2023, the Rate Board conducted a TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate) Reconciliation Proceeding to implement an annual adjustment to TAP-R. The rates charged in Fiscal Year 2025 were decreased as a result of the annual adjustment approved by the Rate Board in the 2023 TAP-R Reconciliation Proceeding.

<u>2023 General Rate Proceeding</u>

The 2023 Rate Case was filed to determine water, sewer, and storm water rates for Fiscal Year 2004 and Fiscal Year 2025. Formal notice was given February 23, 2023, and the Rate Determination was announced on June 21, 2023. In the 2023 Rate Case, the Rate Board approved a rate increase necessary to recover an additional $61.022 million in revenues (9.64%) in Fiscal Year 2024. The Rate Board also approved an increase necessary to recover an additional $57.015 million in revenues (8.16%) in Fiscal Year 2025.

<u>2022 TAP-R Reconciliation Proceeding</u>

In 2022, the Rate Board conducted a TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate) Reconciliation Proceeding to implement an annual adjustment to TAP-R. The rates charged in Fiscal Year 2022 were increased as a result of the annual adjustment approved by the Rate Board in the 2022 TAP-R Reconciliation Proceeding.

<u>2022 Special Rate Proceeding</u>

This Special Rate Proceeding was filed regarding the reconciliation and potential downward adjustment of water, sewer and stormwater rates and charges previously approved to take effect in Fiscal Year 2023. Formal notice was filed on February 25, 2022, and the Rate Determination was issued on June 15, 2022. In the Special Rate Proceeding, the Rate Board determined that additional revenues of $34.110 million as approved in the 2021 General Rate Determination for Fiscal Year 2023, should be reduced by $3.00 million from $34.110 million to $31.110 million (5.89% to 5.37%).

On July 14, 2022, one of the pro se participants filed a challenge to that Rate Determination in the Court of Common Pleas (July Term, 2022 No. 01091; Case ID 220701091).

2021 General Rate Proceeding

The 2021 Rate Case was filed to determine water, sewer, and storm water rates for the 2022 and 2023 fiscal years. Formal notice was given February 16, 2021, and the Rate Determination was announced on June 16, 2021. In the 2021 Rate Case, the Rate Board approved a Settlement. Consistent with the Settlement, the Rate Board approved a rate increase necessary to recover an additional $10.411 million in revenues (1.85%) in Fiscal Year 2022. The Rate Board also approved an increase necessary to recover an additional $34.110 million in revenues (5.89%) in Fiscal Year 2023. The rate increase for Fiscal Year was subject to potential downward adjustment in a separate later proceeding.

2020 Rate Adjustment

In 2020, the Rate Board conducted a TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate) Reconciliation Proceeding to implement an annual adjustment to TAP-R. The rates charged in Fiscal Year 2021 were reduced slightly as a result of the annual adjustment approved by the Rate Board in the 2020 TAP-R Reconciliation Proceeding.

2020 General Rate Proceeding

The 2020 Rate Case was filed to determine water, sewer, and storm water rates for the 2021 and 2022 fiscal years. Formal notice was given March 13 2020. The Rate Board granted, on June 18, 2020, the Department’s request to withdraw the 2020 Rate Case without prejudice to any participant in that or any other proceedings before the Rate Board.

2019 Rate Adjustment

In 2019, the Rate Board conducted a TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate) Reconciliation Proceeding to implement an annual adjustment to TAP-R. The increase for Fiscal Year 2020 was reduced slightly as a result of the annual adjustment approved by the Rate Board in the 2019 TAP-R Reconciliation Proceeding.

2018 General Rate Proceeding

The 2018 Rate Case determined water, sewer, and storm water rates for the 2019 and 2020 fiscal years. Formal notice was given March 14, 2018, and the Rate Determination was announced on July 12, 2018. In the 2018 Rate Case, the Rate Board approved rate increases necessary to recover an additional $24.5 million in revenues in Fiscal Years 2019 and 2020, reflecting annual revenue increases of 1.33% for Fiscal Year 2019 and 1.20% additional increase for Fiscal Year 2020. This proceeding also approved a reconciliation procedure for TAP-R (Tiered Assistance Program Rate Rider Surcharge Rate).

On August 9, 2018, the Public Advocate filed a challenge to Rate Board's 2018 Rate Determination in the Court of Common Pleas (August Term, 2018 No. 00527; Case ID 180800527). That Court affirmed the Rate Board's decision, and the Public Advocate filed an appeal with the Commonwealth Court (1070 CD 2019). The Commonwealth Court's unreported decision is at *Pub. Advocate v. Phila. Water, Sewer & Storm Water Rate Bd.*, 264 A.3d 832 (Table), 2021 Pa. Commw. Unpub. LEXIS 517, 2021 WL 4347216 (Pa. Cmwlth. September 24, 2021), appeal denied by 276 A.3d 199 (Pa. April 5, 2022) and 276 A.3d 200 (Pa. April 5, 2022). Upon remand to the Court of Common Pleas, a settlement was reached to resolve the appeal.

2016 Special Rate Proceeding

The Rate Board also conducted a special rate proceeding from October to December of 2016 as a result of an ordinance adopted on June 28, 2016, which required the Rate Board to establish special discounted rates for eligible community gardens.

2016 General Rate Proceeding

The 2016 Rate Case determined water, sewer, and storm water rates for the 2017 and 2018 fiscal years. Formal notice was given February 8, 2016, and the Rate Determination was announced on June 8, 2016. The Rate Board approved rate increases necessary to recover an additional $89 million in revenues in Fiscal Years 2017 and 2018, reflecting annual revenue increases of 5.1% for Fiscal Year 2017 and 4.5% additional increase for Fiscal Year 2018.

Schedule FP-8

Summary of PWD Efforts to Gain Assistance*

- PWD is pursuing state and federal assistance to support the funding of critical infrastructure upgrades.
- The cost savings from awarded assistance will help the Water Department continue to make needed system investments.

	No. of Application Submitted	Est. Project Cost	Application Submitted	Grant Approved	Loan Approved	Funding Received
Grant	**20**	**$ 616,085,679**	**$ 190,276,674**	**$ 101,507,443**	**$ -**	**$ 250,000**
ARPA COVID-19	3	$ 46,752,487	$ 29,881,142	$ 24,661,090		
EPA	1	$ 3,031,080	$ 1,000,000			
PEMA/FEMA - BRIC	5	$ 164,974,379	$ 91,888,859	$ 25,367,404		
PEMA/FEMA - FMA	2	$ 74,550,852	$ 55,416,368			
PEMA/FEMA - HMGP	2	$ 896,520	$ 672,390			
US Congressional Appropriation (Leadlines)	1	$ 22,545,000	$ 3,757,000			
US Dept of Housing CDBG-DR	3	$ 289,662,949		$ 51,478,949		$ 250,000
US Dept. of Energy	2	$ 10,240,408	$ 4,995,108			
US Dept. of Labor	1	$ 3,432,003	$ 2,665,807			
Loan AND Grant	**1**	**$ 9,975,000**	**$ 9,975,000**	**$ 4,817,625**	**$ 5,157,375**	**$ -**
PennVest Lead Servce Line Replacement	1	$ 9,975,000	$ 9,975,000	$ 4,817,625	$ 5,157,375	
Loan	**12**	**$ 1,222,346,708**	**$ 866,807,708**	**$ -**	**$ 866,807,708**	**$ 184,720,945**
Pennvest	11	$ 525,211,708	$ 525,211,708	$ -	$ 525,211,708	$ 170,933,895
WIFIA (Less competitive interest rate)	1	$ 697,135,000	$ 341,596,000	$ -	$ 341,596,000	$ 13,787,050
Grand Total	**35**	**$ 1,848,407,387**	**$ 1,067,059,382**	**$ 106,325,068**	**$ 871,965,083**	**$ 184,970,945**

*Federal and State assistance as of December 31, 2024.

The above-table can also be found in Schedule FP-1. Additional summary information can be found in the Quarterly Reports submitted to the Rate Board, which are incorporated by reference (PWD Exhibit 4).