



PHILADELPHIA
WATER
— DEPARTMENT —

Investor Presentation

Philadelphia Water Department

November 3, 2022



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PWD's Key Credit Strengths

- **Ample System Capacity.** Serves present and future system needs
- **Strong Operational Management.** Effective management of the Department's rate setting process and its Capital Improvement Plan ("CIP") enabling the Philadelphia Water Department ("PWD or the "Department") to address potential pitfalls before they occur and navigate significant market challenges, particularly COVID-19
- **Track Record of Consistent Financial Results.** Sound budgeting practices resulting in stable and sufficient debt service coverage and strong cash reserves, including recessionary periods
- **Bondholder Protections in Place.** Segregation from other City accounts and cap on General Fund transfers, limiting exposure to City liabilities



Experienced leadership &
a well established service
territory



1 | Economic and Service Territory Overview



Stable & Diverse Customer Base

- Serves 1,603,797 individuals
- Approximately 505,000 active water accounts
- Approximately 544,000 wastewater accounts, including approximately 51,000 stormwater-only accounts
- The ten largest customers represent 10.24% of total revenue
- Aqua Pennsylvania contract represents 0.55% of total revenue
- Wholesale contracts for wastewater treatment represent a combined 5.15% of total revenues

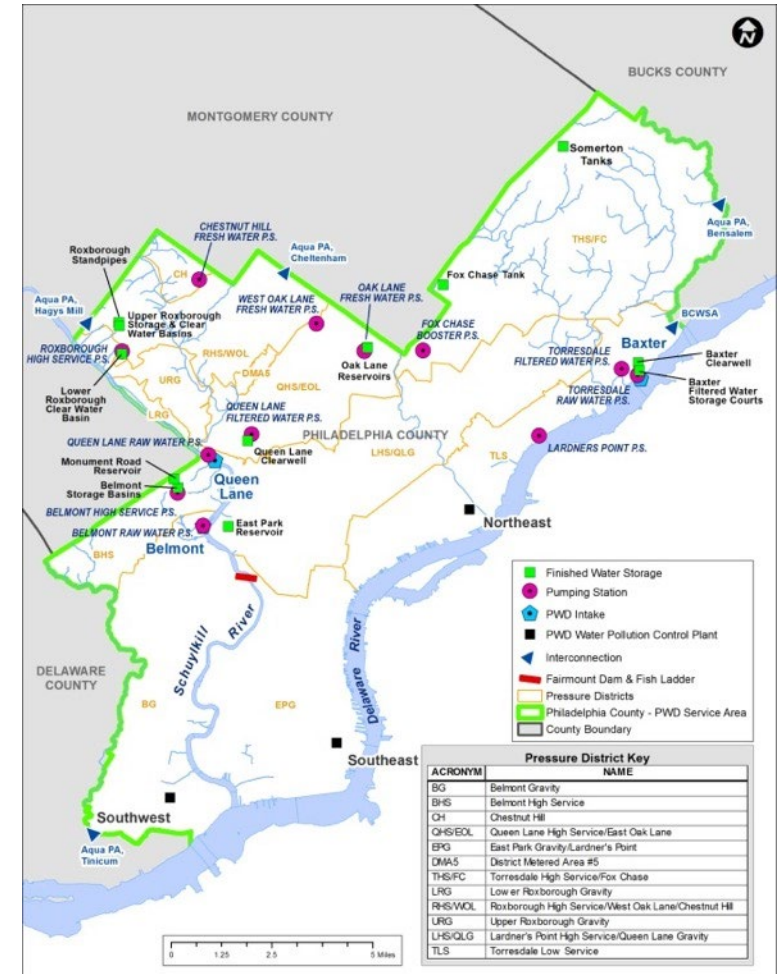
High Quality Capacity for the Service Area

WATER SYSTEM

- Receives 57% of its water from the Delaware River and the balance from the Schuylkill River
- Water treatment is provided by three water treatment plants with a combined rated treatment capacity of 546 MGD:
 - Samuel S. Baxter Water Treatment Plant on the Delaware River
 - Belmont Water Treatment Plant and Queen Lane Water Treatment Plant on the Schuylkill River
- Pursuant to a 25-year permit issued by the Pennsylvania Department of Environmental Protection, the combined maximum source water withdraw capacity from the two rivers is 680 MGD
 - The storage capacity for treated and untreated water in the combined plant and distribution system totals 953 MG
- Serves the City and has one wholesale contract to deliver water to Aqua Pennsylvania

WASTEWATER SYSTEM

- Consists of wastewater collection and treatment facilities, including contracted biosolids treatment and disposal
 - Three water pollution control plants (“WPCPs”) with a combined dry weather flow design capacity of 522 MGD and a peak capacity of 1,059 MGD
 - Northeast WPCP, Southeast WPCP & Southwest WPCP
- Serves the City and has 10 wholesale contracts for wastewater treatment



Source: Philadelphia Water Department

Diversified Customer Base

Rank	Customer Name	Fiscal Year 2021 Revenue (\$000)	% Total Revenue*
1	City of Philadelphia**	\$ 20,961	2.76%
2	Philadelphia Housing Authority	\$ 13,389	1.77%
3	Vicinity Energy Philadelphia***	\$ 7,478	0.99%
4	University of Pennsylvania	\$ 7,201	0.95%
5	School District of Philadelphia	\$ 5,483	0.72%
6	AdvanSix Inc.	\$ 5,475	0.72%
7	SEPTA	\$ 5,206	0.69%
8	Federal Government	\$ 5,179	0.68%
9	Temple University	\$ 3,833	0.51%
10	University of Pennsylvania Health System	\$ 3,463	0.46%
Total****		\$77,669	10.24%

* The % of Total Revenue is calculated using the yearly revenue received by the customer divided by the total yearly revenue of the Water Operating Fund. The total revenue for Fiscal Year 2021 was \$758,587,468.

**The total above for the City of Philadelphia includes, among others, charges for water, wastewater and stormwater services as follows: (i) \$16,910,529.29 – General Fund and (ii) \$4,050,748.52 – Aviation Fund.

*** Previously known as Veolia Energy Philadelphia.

**** Totals may not add due to rounding.



2 | Management

Strong Organizational Structure & Experienced Management

WATER DEPARTMENT ORGANIZATIONAL STRUCTURE

- The Department, one of the City's ten operating departments that reports to the Office of the Managing Director with approval of the Mayor, operates, maintains, repairs and improves the City's water and wastewater systems
 - The Water Revenue Bureau in the City's Revenue Department is responsible for billing, collections, and customer accounting
- Operations are accounted for in the Water Fund, which is an enterprise fund of the City
- PWD is a closed-loop enterprise of the City with a cap on transfers to the General Fund limited to an amount not to exceed the lower of (a) net reserve earnings (as defined in the Ordinance) or (b) \$4.994 million

EXPERIENCED MANAGEMENT

- Deep bench of experienced professionals with an average of more than 25 years of industry experience
- Day-to-day operations managed by Commissioner and five Deputy Commissioners
- Water Department consists of six main divisions: Operations, Engineering & Construction, Finance, Human Resources, Public Affairs, and Planning & Environmental Services
- Senior management is actively involved in industry associations, as well as in developing, implementing and documenting best practices

AWARDS & RECOGNITION

- In 2021, all three of the three WPCPs were selected by the National Association of Clean Water Agencies ("NACWA") to receive awards for excellent performance during 2020
 - The Southwest WPCP received the Platinum Award
 - The Northeast and Southeast WPCP received the Gold Award
 - The Department submitted Peak Performance Applications to NACWA in April 2022 with a decision expected by the end of 2022

Solid Financial Practices & Procedures

Revenue & Expense Assessment	<ul style="list-style-type: none"> • Conducts annual evaluations of all budgeted revenues and expenses and updates them as the Department's finances change; consistently outperforms budget
Budget Monitoring and Interim Reporting	<ul style="list-style-type: none"> • City releases a quarterly report from the Office of the Director of Finance (which includes PWD) • The Department identifies potential issues before the formal annual budget is released during the fiscal year and works to address them
Long-Term Financial Planning	<ul style="list-style-type: none"> • Updates the Five-Year Plan annually, updating all figures as necessary, and forecasts the following five fiscal years • Internal long-term capital and operating projections supported by 25-year Drinking Water Revitalization Plan and Wastewater Master Plan
Asset Management and Long-Term Planning	<ul style="list-style-type: none"> • Updates the six-year Capital Improvement Program annually • Maintains 25-year master plans for both water and wastewater systems • Capital Improvement Program reflects the Water Department's current assessment of the investment required to maintain system reliability at affordable rates
Investment and Liquidity Policies	<ul style="list-style-type: none"> • Consistently meets or exceeds formal minimum reserve levels • Maintains a conservative investment policy
Debt Management Policies	<ul style="list-style-type: none"> • Adheres to the City's approved Debt Management Policy • Debt needs are forecasted annually in the City's five-year financial plan • The Department established a commercial paper program in advance of future new money borrowings • The Department continues to pursue federal programs to lower overall debt cost, including potential WIFIA loans
Transparency and Accountability	<ul style="list-style-type: none"> • City's ACFR is independently audited by the Controller annually and the City posts continuing disclosure in accordance with its Continuing Disclosure Agreement • The City's financial management has been rooted in adhering to best practices, responsible budgeting, efficient operation and a focus on maintaining positive fund balances • Deep bench of financial managers; institutionalized financial controls that have incorporated disciplined budgeting and planning that meets the goals of the independent fiscal oversight authority

History of Support from the Rate Board

Since the establishment of the Rate Board, PWD has successfully filed for and received rate increases. Despite fluctuations (resulting from the implementation of new cost recovery mechanisms and the COVID-19 pandemic), there is a commitment to provide necessary revenue increases.

Rate Proceeding	Fiscal Year	Final Adopted Revenue Increase	Final Adopted Incremental Base Rate Revenue Increase (\$000s)
2016	2017	4.52%	\$29,124
2016	2018	4.52%	\$30,310
2018	2019	1.33%	\$7,884
2018	2020	1.20%	\$7,184
2020	2021	N/A	N/A
2021	2022	1.85%	\$10,411
2022	2023	5.89%	\$31,110

Note: The FY 2019 and FY 2020 revenue adjustments reflect the implementation of a new reconcilable surcharge to recover the cost of providing discounts to TAP customers as approved in the 2018 Rate Determination.

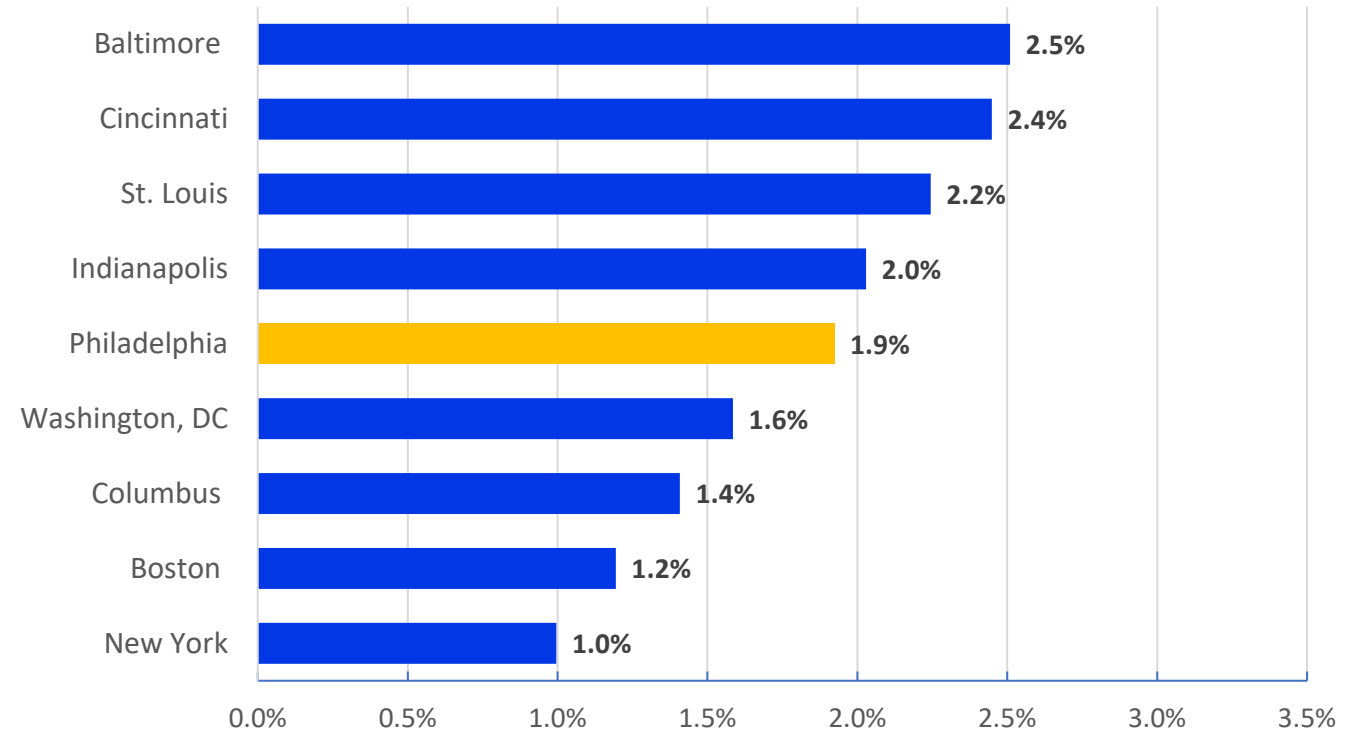
Notes:

The FY 2017 and FY 2018 Revenues Adjustments reflect 12 months of rate increases effective July 1 of the respective fiscal year.

Revenue Adjustments for FY 2019 and beyond reflect 10 months of rate increases effective September 1st of the respective fiscal year.

Affordability Comparison

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



PWD Rates Compare Favorably to Other Large Urban Utilities

- At 1.9%, Philadelphia falls below the affordability threshold recommended by industry standards

Proactively Manages Environmental and Social Risks

Sustainability	<ul style="list-style-type: none"> • Building resiliency through long-term water and wastewater plans, and the efficient operation and management of infrastructure systems • The City has achieved the Ten-Year Performance Standard required by the Consent Order and Agreement (“COA”) • The City’s Office of Sustainability is responsible for implementing Greenworks Philadelphia, the City’s comprehensive sustainability plan
Climate Change Initiatives	<ul style="list-style-type: none"> • The Climate Change Adaptation Program (“CCAP”) works with all PWD divisions to make sure that climate change is considered in long term planning efforts • Two programs dedicated to addressing climate change, one focused on mitigation and one focused on adaptation
Social Initiatives	<ul style="list-style-type: none"> • Rates compare favorably to other large cities and remain affordable compared to the EPA affordability threshold • Philadelphia created one of the nation’s first income- and hardship-based affordability programs, and ways to get help have been expanded in response to the COVID_19 pandemic • Apprenticeship program for recruiting local residents and other initiatives through the Fairmount Water Works
Continued COVID-19 Response	<ul style="list-style-type: none"> • PWD was able to act quickly in order to implement strategies to deal with the short-term and potential long-term operational and economic impacts of the pandemic
Cybersecurity	<ul style="list-style-type: none"> • Complex technology environment to conduct its operations; Office of Innovation and Technology works to protect the City from cyber threats • PWD maintains cybersecurity insurance



3 | Capital Improvement Program

CIP Overview

PWD is making important, long-term investments in the oldest portions of its infrastructure

Overall System Investments

The Department’s FY2023 to FY2028 CIP is \$3.975 billion and is **focused on system reinvestment** with 79%, or \$3.1 billion, dedicated to non consent order and agreement projects.

Drinking Water Revitalization Plan

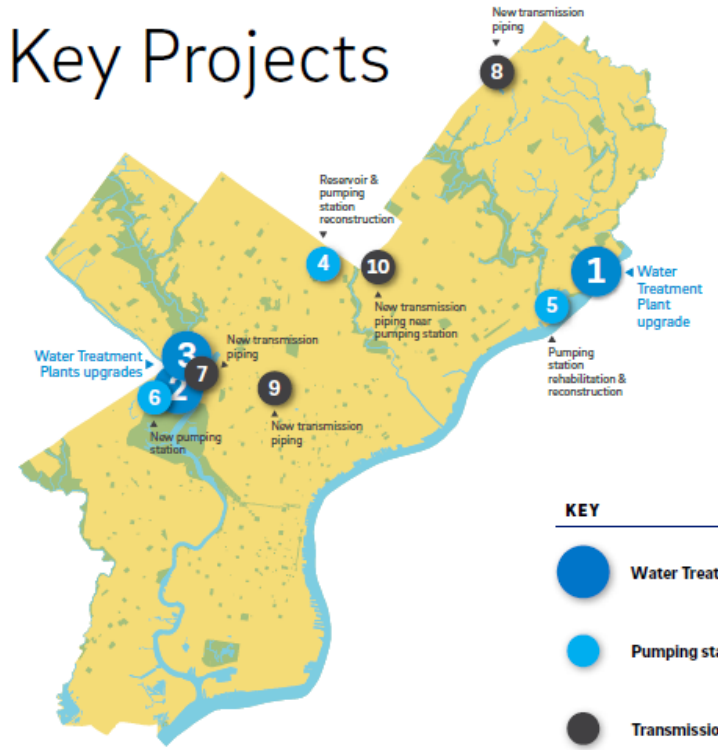
The Department’s Water Revitalization Plan outlines a comprehensive program to upgrade the City’s drinking water treatment and supply facilities over the next 25 years, \$830 million of which is included in FY 2023-2028 CIP.

Green City, Clean Waters

The City has achieved the Ten-Year Performance Standard required by the COA and formally reported the achievement to the PADEP on May 26, 2022.

400 individual projects | 10 key projects

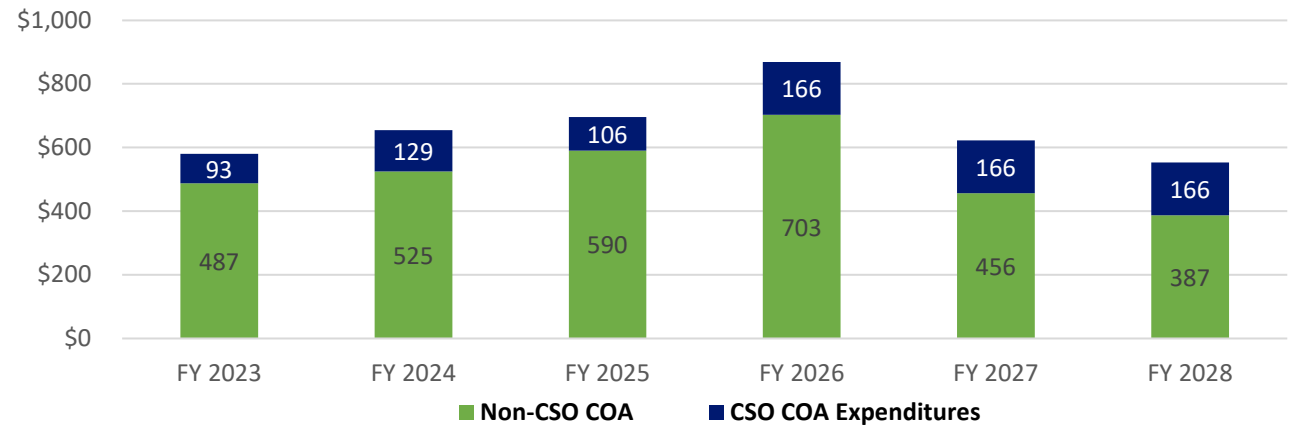
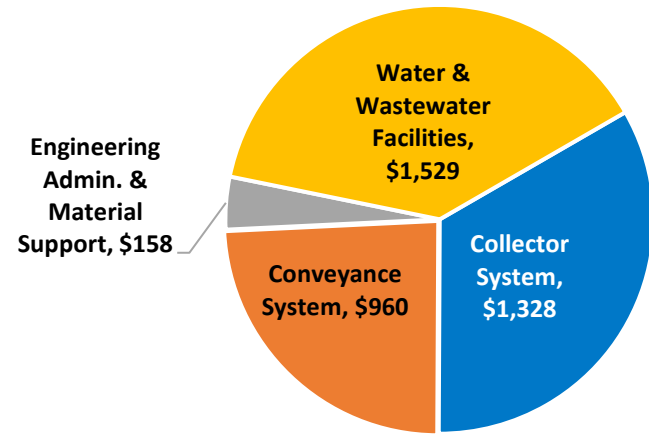
10 Key Projects



Water Revitalization Plan

2023-28 Capital Budget Summary

Capital Budget (\$ millions), FY 2023 - 2028



Capital Budget Summary (\$000)	FY 2023-2028
Collector System	\$1,328,160
Conveyance System	\$960,360
Engineering Admin. & Material Support	\$157,926
Water & Wastewater Facilities	\$1,529,000
Total	\$3,975,446

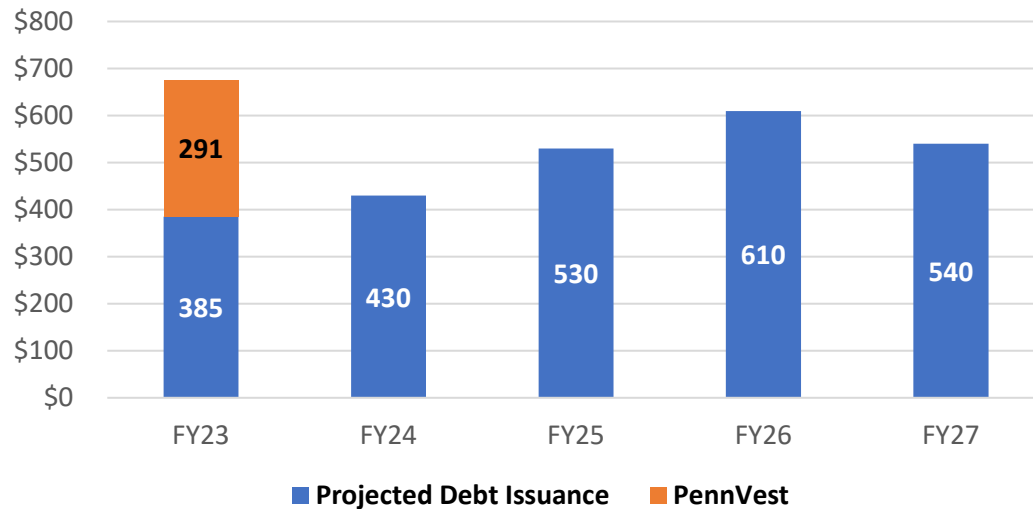
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2023-2028
Subtotal Non CSO COA	\$487,241	\$525,241	\$590,241	\$703,241	\$456,241	\$387,241	\$3,149,446
Subtotal CSO COA*	\$93,000	\$129,000	\$106,000	\$166,000	\$166,000	\$166,000	\$826,000
Total	\$580,241	\$654,241	\$696,241	\$869,241	\$622,241	\$553,241	\$3,975,446

*COA Expenditures represent 20.8% of the Capital Improvement Program budget for Fiscal Years 2023 through 2028

Capital Improvement Program Funding: FY23-FY27

PWD updates its Capital Improvement Program annually to help inform the Water Department's future critical strategic planning efforts. Approximately 90% of CIP costs are expected to be funded with debt proceeds. Projected revenue bond issuances to support the CIP are noted below.

CIP Funding Sources (\$ millions)



Average annual new money borrowing: \$555 million/year



WIFIA Master Agreement Summary

PWD expects to close the City's first Master Loan Agreement during the 1st quarter of 2023, with projects spanning several fiscal years

Distribution Main Replacement

Conveyance upgrades that will enable lead service line replacement

George's Hill Pump Station

Construction of a new pump station to improve system resiliency

Belmont High Service Pump Station

Replacement of pumps, motors, and electrical equipment at an existing pump station

East Park Booster Pump Station

Construction of a new pump station to replace the existing pump station

Baxter Water Treatment Plant Storage

Construction of new finished water storage tanks at Baxter Water Treatment Plant to replace the existing storage basins

Schuylkill River Crossing

Finished water pipeline and pump station to connect Belmont and Queen Lane Water Treatment Plants

Monument Road Storage

Construction of a new finished water storage tank on the Monument Road Reservoir site

Belmont Water Treatment Plant Storage

Construction of new finished water storage tanks at Belmont Water Treatment Plant to replace the existing storage basins



4 | Financial Performance & Forecast

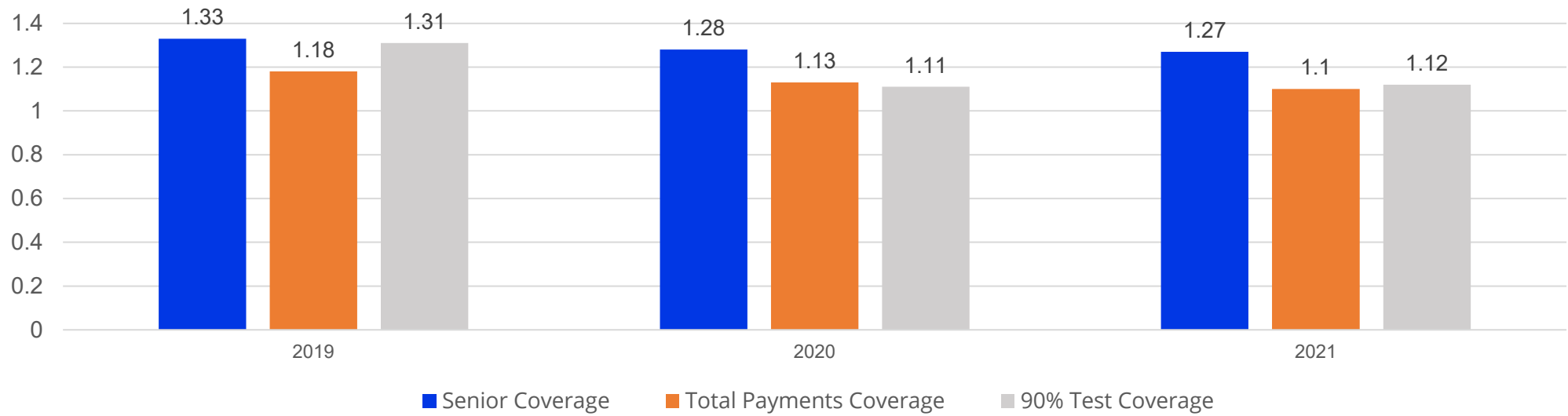
Key Financial Objectives

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

- **Capital Funding from Current Revenues:** Transition to 20% funding of capital program from current revenues.
- **Debt Service Coverage:** Return to and maintain 1.30x debt service coverage for senior debt in Fiscal Year 2024 and beyond.
- **Debt Issuance:** Align debt payments, over the lifetime of assets, through strategic debt amortization.
- **Cash Reserves:** Maintain and replenish cash reserves to absorb unanticipated future costs.
- **Federal Assistance:** Secure \$100M annually of federal assistance for Capital program which may include PennVest Loans, BRIC Grants, and other grant opportunities.

PWD Debt Service Coverage

PWD DEBT SERVICE COVERAGE, FY 2019-FY 2021

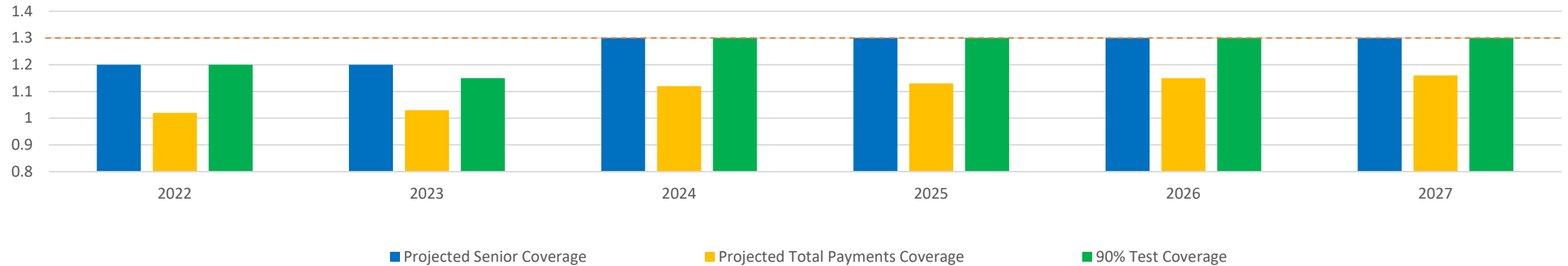


Source: City of Philadelphia and the Philadelphia Water Department Financial Statements

Managing Coverage & Cash Balances

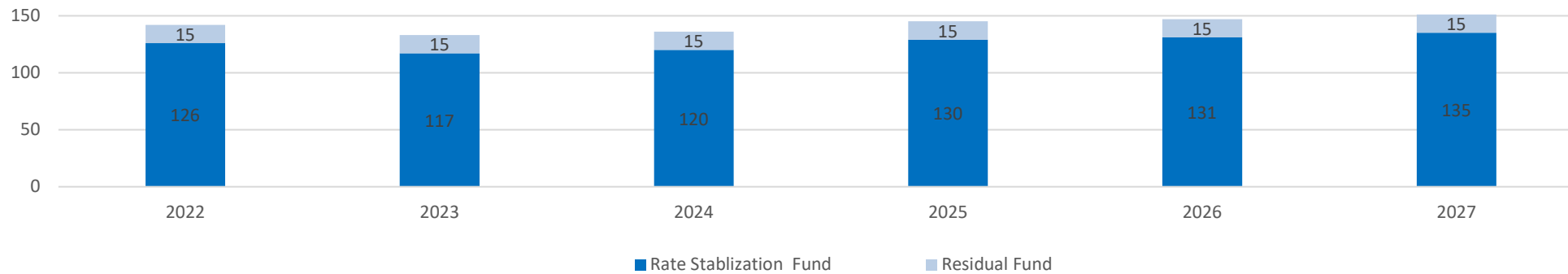
PROJECTED COVERAGE CALCULATIONS

The Water Department intends to resume targeting senior debt service coverage ratios of 1.30x in Fiscal Year 2024 and beyond.



PROJECTED RATE STABILIZATION AND RESIDUAL FUND BALANCES (000S)

PWD's liquidity is supported by Operating Fund balances – FY21 balance was \$170 million



Legal Protections for Bondholders

- **Segregation of Funds and Pledge of Revenues**
 - The City is required to deposit all water and wastewater funds with an independent fiscal agent and to keep such funds separate and apart from City funds
 - Daily sweep of collected funds by the City to the fiscal agent
 - The City can't borrow water or wastewater funds for other city purposes, including temporary or seasonal cash flow needs
 - Other than an annual transfer to the City of up to \$4.994 million (not to exceed the actual amount of interest earnings on the DSR), System is a closed loop
- **Rate Covenant**
 - 1.2x debt service for senior lien debt
 - 1.0x for all debt obligations and required transfers
 - Rates and charges equal at least 90% of debt service requirements, excluding transfers from the RSF
- **Additional Bonds Test**
 - 1.2x coverage of maximum annual debt service ("MADS") from net revenues, including transfers from the RSF
- **Debt Reserve Account**
 - Funded at MADS
- **Rate Stabilization Fund ("RSF") and Residual Fund**
 - Combined balance of \$141 million for FY 2021



5 | Conclusion

Strong Operational, Managerial & Financial Characteristics

Experienced Leadership

- Team approach focused on forecasting potential issues and managing them effectively
- Seasoned management team with deep bench of long-tenured professionals
- Depth of experience and conservative approach leads to proactive long-term planning

Strong Operational and Financial Performance

- Consistently meets or outperforms budgets, financial targets and coverages with minimal operating risk
- Demonstrated financial resiliency and adaptability through pandemic and related events

Commitment to ESG

- Climate change is considered in all of PWD's long-term planning efforts through the Climate Change Adaptation Program
- TAP improves affordability and socio-economic equity, ensuring all residents have access to water they can afford
- Operates as a self-supporting fund with oversight from the Office of the Managing Director

Thank you.

