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

Update to credit opinion

Summary

Philadelphia Water and Sewer Enterprise, PA (or Philadelphia Water Department, "PWD"or "the department") (A1 stable) will continue to maintain a solid financial position despite sizable capital needs due to a willingness to raise rates. The department ended its service shut off moratorium in June 2022, and while customer delinquencies and bad debt write-offs remain elevated compared to before the coronavirus pandemic, management is implementing a variety of payment assistance programs that are expected to improve delinquencies. Continued weakness in PWD's rate base at this magnitude, however, will result in negative pressure on its credit profile.

The department's ability to raise rates is materially constrained by its rate board governance structure. Favorably, the rate board approved a sizeable 7.85% rate increase for 2024, following a 5.37% increase in the current year. However, these increases serve to keep PWD operating just above its 1.2x covenant in 2024, inclusive of transfers from the rate stabilization fund to supplement revenue. Following an approved rate increase of 8.14% in 2025, increases of more than 8% each year thereafter through 2027 are projected to be required to stabilize coverage back to the department's preferred 1.3x threshold and rebuild reserves. While these rates far exceed what the rate board has approved historically, we expect that PWD's budget projections continue to be fairly conservative.

The department's very large capital budget provides some operating flexibility, as a slow down of projects can positively impact operating expenditures and help to maintain overall structural balance, though slowing needed capital repairs adds potential stress to an aged infrastructure.

PWD's long-term credit profile is moderated by a sizeable consent order and the system's aging infrastructure, both of which will require significant capital investment. PWD has expanded its capital improvement plans to encompass roughly $4.6 billion of spending through fiscal 2029, about 88% of which will be funded with bond proceeds. While this is an extensive capital plan, we expect new money issuance will be accompanied by rate increases sufficient to maintain required coverage and liquidity. Further, PWD's current debt portfolio is structured with material debt service reductions in 2028 and 2033, and so additional debt can be supported while keeping annual servicing costs relatively level.

Credit strengths

» Some flexibility in the capital budget will help to maintain structural balance in the near term

» Future debt increases financially offset by middle-term debt service declines

- Satisfactory current cash reserves and formal reserve policy
- Large and diverse service area
- Closed-loop legal framework

Credit challenges

- Ongoing elevated residential delinquencies reflecting economic weakness in the service area base
- Consent Order & Agreement and aging infrastructure necessitate sizable capital plan and related debt issuance; a slow down of projects helps maintain operating flexibility in the near term but contributes to the long term burden
- Continued rate limitations through rate board approval structure; continued rate increases are required to support debt and capital plan

Rating outlook

The outlook is stable given consistent historical results and the expectation that management will continue to act to maintain structural operating balance and meet coverage covenants despite growing leverage. Third party engineer and financial consultant reports add to operational stability and comprehensive debt planning.

Factors that could lead to an upgrade

- Considerable improvement in debt service coverage
- Service area expansion / revenue growth beyond expected rate increases

Factors that could lead to a downgrade

- Failure to meet bond coverage covenants
- Inability to increase rates commensurate with coverage requirements and in line with the department's internal standards
- Appropriation of reserves beyond current expectations
- Continued material customer delinquencies

Key indicators

Exhibit 1

Philadelphia (City of) Water and Sewer Enterprise, PA					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	21 years				
System Size - O&M ($000)	$458,450				
Service Area Wealth: MFI % of US median	72.50%				
Legal Provisions					
Rate Covenant (x)	1.20x				
Debt Service Reserve Requirement	DSRF funded at MADS (Aaa)				
Management					
Rate Management	A				
Regulatory Compliance and Capital Planning	A				
Financial Strength					
	2018	2019	2020	2021	2022
Operating Revenue ($000)	$726,942	$746,072	$733,318	$718,572	$766,367
System Size - O&M ($000)	$429,239	$449,522	$466,173	$411,065	$458,450
Net Revenues ($000)	$310,215	$320,604	$290,862	$308,602	$302,494
Net Funded Debt ($000)	$1,624,268	$1,802,833	$1,953,971	$2,073,530	$2,240,281
Annual Debt Service ($000)	$202,338	$177,296	$192,478	$158,397	$182,061
Annual Debt Service Coverage (x)	1.5x	1.8x	1.5x	1.9x	1.66x
Cash on Hand	88 days	92 days	104 days	151 days	136 days
Debt to Operating Revenues (x)	2.2x	2.4x	2.7x	2.9x	2.9x

Source: Moody's Investors Service

Profile

The Philadelphia Water & Sewer Enterprise provides water and sewer treatment service to the city of Philadelphia (A1 stable) and some of its surrounding suburbs. PWD's customer base includes approximately 504,000 active water accounts and 542,000 active wastewater accounts.

Detailed credit considerations

Service area and system characteristics: Large and diverse urban service area

Philadelphia Water and Sewer Enterprise's current credit profile incorporates the benefit of a large urban base, consisting primarily of the city of Philadelphia, coupled with some wholesale accounts in the surrounding suburbs. However, an already challenging economic base within the city has been worsened by the coronavirus crisis. As of June 30, 2022, 14 days after the moratorium for account shut offs concluded, doubtful accounts amounted to $20.5 million - a 38% increase from fiscal 2021. The department expects that delinquencies will moderate now that the shut-off moratorium has ended, however, and management is taking proactive steps to collect on these accounts. Specifically, the city and the department are offering a variety of payment assistance options including extended payment agreements.

Still, continued weakness in the rate base may pressure the department in the longer term, necessitating higher rate increases for the base generally. Prolonged weakness in the customer base, particularly continued increases in residential delinquencies or a need to materially expand the department's rate subsidies, could result in negative pressure on the department's credit profile.

The water system serves more than 1.5 million individuals through 504,000 active customer accounts and one wholesale account with Aqua Penn. The system maintains three treatment plants, which pull water from the Delaware (57% of water) and Schuylkill (43% of water) rivers. These plants together have a rated treatment capacity of 546 million gallons per day (MGD) and a combined maximum source water withdrawal capacity of 680 MGD, well above the system's average and maximum daily water production over the last several years. The system's water meets all standards set by the Department of Environmental Protection and Environmental Protection Agency.

The wastewater system serves a moderately larger area with 542,000 retail accounts (including 46,000 storm water only accounts) and 10 wholesale accounts with neighboring communities and authorities. These wholesale accounts contributed about 5% of overall revenues for fiscal 2023. The wastewater system infrastructure includes three treatment plants. These plants provide a combined average treatment capacity of 522 MGD and peak capacity of 1,059 MGD, again well above-average flow reported for the last several years. The system maintains a long-term contract and lease with Philadelphia Municipal Authority to operate its Biosolids Recycling Center through fiscal 2028.

With a population of more than 1.57 million as of the 2022 census, Philadelphia is the sixth-largest city in the US. The population is growing, albeit slowly, largely due to national demographic trends favoring urban areas, as well as the appeal of the city's substantial mix of universities, hospitals, and other employers.

Debt service coverage and liquidity: consistent debt service coverage, near-term appropriation of reserves

Given two material rate increases in 2023 and 2024, for 5.37% and 7.85%, respectively, the department expects a modest $4 million draw on its rate stabilization fund in 2024 following stability in fiscal 2023, with a rebuilding of reserves projected beginning in fiscal 2025. This is a more rapid rebuilding of the fund when compared to previous projections. While positive, projections include further sizeable rate increases - 7.85% in 2024, 8.14% in 2025, and more than 8% in each year thereafter - in order to stabilize operations, resume capital spending as required and rebuild reserves to pre-pandemic levels. Management's plan is sound, but the department's rate board has historically declined to approve rate increases at management's requested levels. In fact, prior to the 5.37% increase for 2023, the board's largest rate approval was 4.52% in 2017 and 2018. We expect that management will adjust its budget accordingly if requested increases are not approved, though this will likely be at the expense of capital investment and/or strengthening reserves.

Moody's evaluates coverage based on generally accepted accounting principles with a few adjustments, while the department reports figures on a "legally enacted" basis that is more cash-focused. The aforementioned rate increase will allow the department to begin to rebuild its reserves and maintain its "legally enacted" debt service coverage ratio of 1.20 times. In fiscal 2023, coverage will decline to 1.22 times from 1.29 times in fiscal 2022. By 2024, coverage is expected to grow to 1.25 times and by 2026 it will increase to 1.30 times. However, this remains below the pre-pandemic level of 1.33 times.

Moody's calculated coverage ratio is a moderately stronger 1.66 times for fiscal 2022.

The department's ability to meet coverage targets and rebuild reserves while also pursuing more normalized spending for capital will depend on future rate approvals, which, again are expected to be sizeable. A return to pre-pandemic customer collection rates will also be important. Should future rate increases not be realized, or if reserves are drawn down beyond current expectations, PWD's current credit profile could be pressured.

Liquidity

PWD's Water Sewer and Stormwater Board has a policy to maintain at least $150 million in the Rate Stabilization and Residual Funds. Days cash on hand is a fairly narrow 136 days as of fiscal 2022 year end.

Debt and Legal Covenants

The department's leverage will grow upon the forthcoming issuance of its $485.1 million Series 2023B bonds. The department's $2.2 billion of outstanding debt at the end of fiscal 2022 will accordingly grow to approximately $3.2 billion or a still manageable 3.5 times operating revenue. Favorably, the existing debt structure is front-loaded and PWD realized debt service savings in 2021 and will again see a debt cliff in 2028 and 2033, though we expect that much of the debt service savings that could be realized given the current debt profile will be eliminated with the issuance of new debt in the near term. Current projections for new money issuance over the next six years show that debt service will remain level or moderately increase in the coming years.

The department's six-year capital improvement plan, which reflects the consent order as well as major investments to the department's water infrastructure, totals $4.6 billion and will be roughly 88% debt-funded over the next six years. Notably, the capital plan size has increased by about $600 million year-over-year. Favorably, the department has been successful in securing low-cost PennVest and WIFIA loans as an alternative to bond issuance.

If the capital plan is executed as currently structured, the system's debt burden will continue to grow, though again, we anticipate that the department's bond covenants and formally adopted policies will ensure that new money debt will only be issued in concert with appropriate rate increases.

The department has a commercial paper note program with a maximum authorization of $400 million. There is currently $25.0 million outstanding to date.

Legal security

The bonds are special obligations of the city of Philadelphia, secured equally and ratably with the city's outstanding Water and Wastewater Revenue bonds. All Water and Wastewater Revenue bonds are secured by a pledge of and security interest in all Project Revenues derived from the city's water and wastewater systems.

Debt structure

The legal covenants governing the system's senior lien bonds are satisfactory. The senior lien rate covenant is 1.2 times and the total debt service covenant is 1.0 times (although the system currently has no subordinate bond debt). The indenture permits transfers from the rate stabilization fund, meaning the department could use prior-year surpluses to meet its covenant. The additional bonds test is to comply with the rate covenant.

The debt service reserve fund requirement is maximum annual debt service. Additionally, the system, by ordinance, requires that any surety in a debt service reserve fund be rated Aa or higher. A $67 million surety policy with Assured Guaranty Municipal Corp (A2 stable) is not eligible to be included in the reserve requirement. Thus, the department has a debt service reserve fund cash-funded at MADS, plus the surety policy.

As of fiscal 2022, all of the department's debt is fixed rate.

Ordinance No. 171110-A, signed by the Mayor on April 24, 2018, includes certain amendments to the General Ordinance (the "Springing Amendments") that became effective upon issuance of the department's Water and Wastewater Revenue Bonds Series 2022 C. One important amendment concerns the debt service reserve, and allows the department to establish a separate debt reserve subaccount for a series of Water and Wastewater Revenue Bonds in lieu of a deposit to the debt reserve account, upon receipt of a rating confirmation from any one Rating Agency then rating the Water and Wastewater Revenue Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Water and Wastewater Revenue Bonds the outstanding. The department has not yet utilized this amendment, and management reports that it will not do so for the proposed bonds and does not have plans to do so in the near term

Debt-related derivatives

The department is not party to any derivative agreements.

Pensions and OPEB

The city of Philadelphia operates one defined-benefit plan: the City of Philadelphia Public Employees Retirement System (not including the pension plan for the Philadelphia Gas Works). It is a mature plan that has roughly 66,000 members, 28,000 active employees and 38,000 retirees. As a result of improved employee contributions, and in addition to the city consistently contributing to the plan above the minimum municipal obligation (MMO), Philadelphia has been able to achieve positive net cash flow excluding investment returns in each of the last three fiscal years. This means that contributions into the system are exceeding benefit outflows, enabling the system to accumulate assets more rapidly.

Favorably, the city reduced its assumed rate of return on its pension plan, to 7.40% in fiscal 2023 from 7.45% in fiscal 2022, and further reduced the rate to 7.35% in fiscal 2024. The city also increased employee contributions under current union contracts. The city contributed $860 million to pensions in fiscal 2022, exceeding the minimum municipal obligation (MMO) of $678 million.

ESG considerations

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.

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.

Management Credibility and Track Record considerations are a governance strength due to the department's long-term planning and history of conservative budgeting and rate increases.

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