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New Issue

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Philadelphia (City of) PA

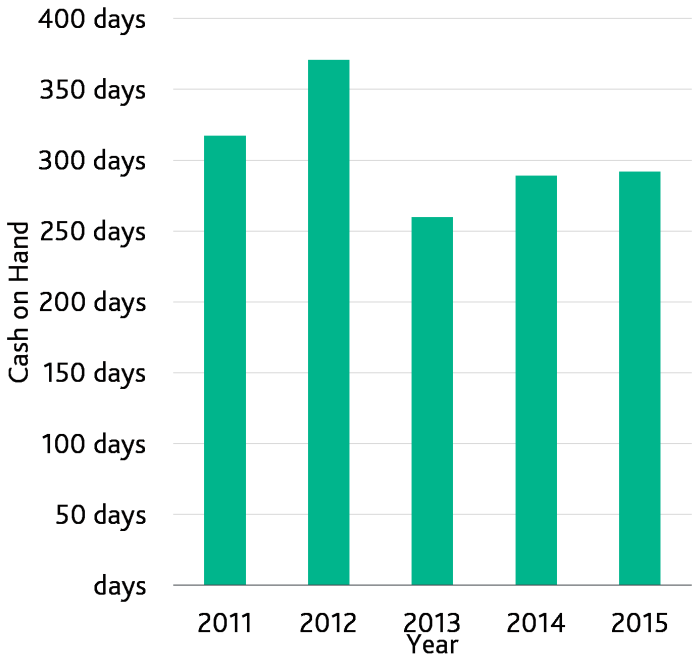
New Issue - Moody's Assigns A1 to Philadelphia, PA's $174.9M Water and Wastewater Rev. Ref. Bonds, Ser. 2016

Summary Rating Rationale

Moody's Investors Service has assigned an A1 rating to Philadelphia, PA's Water and Wastewater Revenue Refunding Bonds, Series 2016. Concurrently, Moody's has affirmed the A1 rating on the system's outstanding revenue debt. The outlook is stable.

The A1 incorporates the large and diverse service area, stable operating profile, narrow but consistent debt service coverage, and manageable debt burden. The rating also recognizes the utility's heavy capital needs including those associated with a Commonwealth DEP consent order and agreement, implying a likelihood of increasing debt and potential pressure on coverage levels unless the city continues its solid history of consistent annual rate increases.

Exhibit 1
System Continues to Maintain Strong Liquidity



Source: Philadelphia, PA's 2011-2015 CAFRs

Credit Strengths

» Large and diverse service area

» Solid liquidity

» Demonstrated willingness to increase user rates

Credit Challenges

» Commonwealth DEP consent order and agreement implying likely increase in capital needs

» Heavy capital investment requirements

» Debt service coverage somewhat narrower than peers

Rating Outlook

The stable outlook reflects the City's willingness to continue investing in its system, increasing user rates annually, and maintaining ample operating liquidity. The City ability to maintain adequate coverage levels will be a key factor in its rating going forward.

Factors that Could Lead to an Upgrade

» Improvement in debt service coverage to levels more consistent with peers

» Ongoing improvements in service base

Factors that Could Lead to a Downgrade

» Failure to increase rates commensurate with incremental increases in debt service

» Significant narrowing of debt service coverage from current levels

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

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)	376,528				
Service Area Wealth: MFI % of US median	71.%				
Legal Provisions					
Rate Covenant (x)	1.20				
Debt Service Reserve Requirement	DSRF funded at MADS				
Financial Strength					
	2011	2012	2013	2014	2015
Operating Revenue ($000)	558,483	601,801	610,988	639,974	676,867
O&M ($000)	312,311	300,829	345,409	354,686	376,528
Long-Term Debt ($000)	1,739,179	1,819,891	1,830,387	1,935,252	2,100,797
Annual Debt Service Coverage (x)	1.36	1.58	1.40	1.42	1.48
Cash on Hand	317 days	371 days	260 days	289 days	292 days
Debt to Operating Revenues (x)	3.1x	3.0x	3.0x	3.0x	3.1x

Source: Philadelphia, PA's 2011-2015 CAFRs

Detailed Rating Considerations

Service Area and System Characteristics: Large and Diverse Service Area

The Philadelphia Water and Sewer Enterprise serves a large and diverse urban and suburban base consisting mainly of the City of Philadelphia (A2 negative). The water department operates a water system with 480,000 retail accounts and one wholesale account (Aqua Penn), serving approximately 1.6 million individuals (city plus around 211,000 people in the suburbs). The system has three plants that treat water from the Delaware (56% of water) and Schuykill (44% of water) rivers. The plants have a rated treatment capacity of 546 MGD and a maximum treatment capacity of 680 MGD, which is well above the average daily rate and maximum water production of 223.8 MGD and 258.2 MGD, respectively. The system's water meets all water standards set by DEP and EPA.

The wastewater system serves larger area with 545,000 retail accounts (including 50,000 storm water only accounts) and 10 wholesale accounts with neighboring communities and authorities, encompassing a population of over 2.3 million. The wastewater system has three treatment plants that discharge into the Delaware River. The plants have a combined average daily capacity of 522 MGD and peak capacity of 1,059 MGD, which is well above the monthly average flow of 379 MGD in fiscal 2016. The system has a long-term contract and lease with Philadelphia Municipal Authority to operate its Biosolids Recycling Center through fiscal 2028, and has realized approximately $10 million in annual savings since its inception.

With a population of roughly 1.6 million, Philadelphia is the fifth-largest city in the US by population, and is at the center of the sixth-largest metropolitan area. The population is growing and getting better-educated, and personal income has increased 21% since 2009. We attribute the city's growth to national demographic trends, as well as the appeal of the city's substantial mix of universities, hospitals, and other employers. Among the system's 10 largest customers, aside from the City itself, its school district, and public housing authority, are the University of Pennsylvania (Aa1 stable), the University of Pennsylvania Health System (Aa3 stable), and the federal government that provide stability to the local economy. The top 10 customers only represented a moderate 11% of total operating revenue in fiscal 2015.

Philadelphia's demographic profile is below-average with a median family income equal to 71% of the US median and a high poverty rate of 27%. As of June 2016, the city's unemployment rate was 6.9%, relative to the US rate of 5.5%. We utilize Philadelphia's

demographic statistics as a proxy for the system's socioeconomic profile; however, the overall profile is stronger than these numbers, as it includes wealthier suburbs in Montgomery (Aa1 stable), Bucks (Aaa stable), and Delaware (Aa1) counties.

Debt Service Coverage and Liquidity: Narrow but Consistent Debt Service Coverage; Ample Liquidity

The system's commitment over the past decade to consistently increasing rates has led to debt service coverage that is stable, although narrower than most peers. In 2015, the system's Moody's adjusted net revenues covered debt service by approximately 1.48 times, and has remained relatively stable averaging 1.45 times over the last five years. In this report, we evaluate coverage based on Generally Accepted Accounting Principles with a few adjustments, while the system reports figures on a "legally enacted" basis that is more cash-focused. These two bases often differ year-to-year. According to the system's calculation, senior-lien coverage on a legally enacted basis in fiscal 2015 was 1.23 times.

Preliminary projections for fiscal 2016 show senior-lien debt service coverage remaining relatively level at 1.24 times on a legally enacted basis. Based on the system's five-year projections, that include a level customer base, additional annual rate increases (see below for more details) and modest revenue (4% average annual increase) and expenditure (3.5% average annual increase) growth, senior lien debt service coverage is expected to increase slightly from 1.25 times (Fiscal 2017) to 1.35 times in fiscal 2019. Senior lien debt service coverage will then remain level at 1.35 times through fiscal 2021. Favorably, the system has a history of outperforming budgeted figures.

LIQUIDITY

The system's liquidity is ample, and a key strength for its credit quality. Operating cash balances at the end of fiscal 2015 totaled roughly 292 days cash on hand, which is above average. These cash balances include unrestricted cash (78 days) plus cash in two accounts: the residual fund and the rate stabilization fund. As the system can transfer from either of these two funds back into operations, we consider it to be usable liquidity and include it in days cash on hand. The system's long-term projections show cash remaining above 205 days through fiscal 2021.

Debt and Legal Covenants: Debt Burden Will Likely Grow; Weak Legal Covenants

The system's $1.9 billion of outstanding debt is manageable, but likely to grow due to heavy capital needs. The current debt portfolio is equal to 3.1 times revenues, and net funded debt is equal to an above average 71.9% of net fixed assets. Favorably, the system's existing debt structure is front-loaded, which can mitigate future increases in expected debt service. Currently, the system's debt faces a drop off in 2018, as debt service decreases from $219 million (fiscal 2016) to $159 million (fiscal 2019). Debt service from the upcoming new money issues is expected to fill this gap, resulting in relatively level debt service in the coming years.

The system entered into a consent order with the Pennsylvania Department of Environmental Protection in June 2011 to address storm water overflows. The 25-year agreement was initially expected to cost approximately $2.4 billion, but an updated cost evaluation of the order is currently being conducted. The agreement will primarily focus on converting impervious surfaces into green space to better absorb storm water and reduce overflows.

The system's five-year capital improvement plan, which reflects the consent order as well as other capital needs, totals $1.9 billion, and is 80% debt-funded. Estimated average annual borrowing of approximately $276 million implies a likely increase to the system's debt burden.

LEGAL COVENANTS

The legal covenants governing the system's senior lien bonds are moderately weak. 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 debt). However, the indenture permits the inclusion of transfers from the rate stabilization fund in net revenues, 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 reserves 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. Effectively, the debt service reserve fund is funded at 1.3 times MADS.

DEBT STRUCTURE

The debt portfolio consists mostly of fixed-rate bonds (87%), but also includes Pennsylvania Infrastructure Investment Authority (PennVest) loans (8%) that are on parity with the senior lien bonds, and two series of variable rate bonds (5%). Of the $92.2 million of variable rate debt, $56.9 million is unhedged. The remainder is backed by a liquidity facility and converted to synthetic fixed rate debt by a swap.

DEBT-RELATED DERIVATIVES

The system is party to a fixed-payer swap to hedge $35.3 million of its variable rate debt.

PENSIONS AND OPEB

The city 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, aggregate contributions into the plan are less than the amount of benefits payable in any given year, resulting in a higher reliance on investment income to make up the difference. Favorably, the City has reduced its assumed rate of return on its pension plan, to 7.75% (2015) from 8.75% (2005), and increased employee contributions under current union contracts. In addition, the City recently negotiated for new DC 33 union employees to enter a stacked hybrid plan. However, the City's rate of return is still above-average when compared to other local governments, and as a result of poor market performance last year, the City revised its fiscal 2017 contribution by an additional $12 million.

The City's minimum municipal obligation (MMO) for the plan was $556 million (13.5% of operating expenditures), of which the city contributed $577.2 million (14% of operating revenues) in fiscal 2015. Of this amount, $48.3 million (12.8% of operating expenses) represented the contribution from the water and sewer system. The system's pension contribution has increased by $10.6 million or 28.1% over the last five years. Going forward, the system's contribution is projected to increase by another 33% to $64.3 million (17.1% of fiscal 2015 expenses) through fiscal 2021.

Management and Governance

The system is one of the city's ten operating departments with operations being accounted for in the Water Fund, which is an enterprise of the City. The system is closed-loop with a cap on General Fund transfers to the lesser of (a) net reserve earnings or (b) $4.994 million. The Water Revenue Bureau is responsible for the billing, metering, and collection of revenues for the system. Favorably, the system maintains five-year projections that run through fiscal 2021.

The system's management has consistently increased rates and maintained a healthy amount of operating cash on hand. Until fiscal 2015, the water commissioner had the authority to set rates, and raised rates consistently, averaging around 5% between 2009 and 2015. Rates are now approved by an independent five-member rate board, whose members are appointed by the mayor and confirmed by city council. While the decision maker for the system's rate increases has changed, much of process remains the same. While rates remained level in fiscal 2016, the board adopted a 5.1% and 4.5% increase in fiscal 2017 and 2018, respectively. The system's projections include additional average increases of 4.4% (fiscal 2019), 7.1% (fiscal 2020), and 6% (fiscal 2021), although these rates have not yet been adopted by the board.

Legal Security

The system's bonds are secured by a senior lien on the net revenues of its water and sewer systems. The bonds are on parity with PennVest state revolving fund loans. The system currently has no subordinate debt.

Use of Proceeds

Proceeds from the current issuances will be used to refund a portion of the Series 2007A and Series 2009A bonds for an estimated net present value savings of $29.3 million, or 14.8% of refunded principal, with no extension of maturity. Depending upon market conditions, the City might decide to include in its refunding certain maturities from the 2010C Bonds which could increase present value savings to $32 million and the size to approximately $218 million.

Obligor Profile

The Philadelphia Water Department provides water and sewer treatment service to the City of Philadelphia and some of its surrounding suburbs.

Methodology

The principal methodology used in this rating was US Municipal Utility Revenue Debt published in December 2014. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

Ratings

Exhibit 3

Philadelphia (City of) PA

Issue	Rating
Water and Wastewater Revenue Refunding Bonds, Series 2016	A1
Rating Type	Underlying LT
Sale Amount	$174,850,000
Expected Sale Date	10/13/2016
Rating Description	Revenue: Government Enterprise

Source: Moody's Investors Service

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