

RatingsDirect®

Summary:

Philadelphia; Joint Criteria; Water/Sewer

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Table Of Contents

Rationale

Outlook

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Credit Profile

US\$174.85 mil wtr and wastewtr rev rfdg bnds ser 2016 due 10/01/2035

Long Term Rating A+/Stable New

Philadelphia wtr & swr

Long Term Rating A+/Stable Upgraded

Rationale

S&P Global Ratings assigned its 'A+' long-term rating to Philadelphia's series 2016 water and wastewater revenue refunding bonds and raised both the long-term rating and underlying rating (SPUR) on the city's existing water and wastewater revenue debt to 'A+' from 'A'. We also affirmed our 'AA+/A-1+' rating on Philadelphia's series 1997B bonds, which are jointly secured by the city and the letter of credit (LOC) provider TD Bank N.A. Except for when applying joint criteria, in which case the outlook is not meaningful, the outlook on the bonds is stable. Since our last review, we have observed no significant cost escalations or unanticipated projects related to the city's large capital improvement plan (CIP), stable overall economic trends, and financial performance that continues to meet or exceed historical projections.

The city will use the series 2016 bond proceeds to refund a portion of its outstanding bonds for debt service savings.

The 'A+' rating is based on the following characteristics:

- A very strong enterprise risk profile generally reflecting a broad and diverse service base and rates we view as affordable despite income levels for Philadelphia city and county that are measurably weaker than surrounding areas;
- A very strong financial risk profile primarily supported by a large available rate stabilization fund and debt service coverage (DSC) that exceeds covenanted minimum levels, but also a sizable CIP and an already high debt-to-capitalization ratio; and
- "Strong" operational and financial management assessments (OMA, FMA), reflecting robust policies and procedures that are well-embedded.

Securing debt service are net revenues of the water and sewer fund, which includes (net of operating expenses) rates and charges of the system, transfers from the rate stabilization fund, and interest earnings. Rates must be set to generate revenues and charges plus transfers from the rate stabilization fund that represent at least 1.2x annual debt service on senior revenue bonds and 1.0x coverage when including all subordinate debt (if outstanding, which currently they are not) and certain other transfers. The city can issue additional debt as long as it is complying with the rate covenant at the time of issuance and net revenue projections are sufficient to provide for rate covenant compliance for the two fiscal years following the debt issuance. As long as Assured Guaranty Municipal Corp. (AGM; formerly FSA) insures any of the city's 2005A, 2005B, and a portion of the 2010A bonds, it requires that the city

maintain net system revenues (excluding transfers from the rate stabilization fund) totaling at least 90% of operating requirements (90% test). This provides additional bondholder protection, in our view, since this effectively limits how much the system can rely on draws from the rate stabilization fund. This provision also applies to the additional bonds test.

Philadelphia's combined water and sewer system is highly leveraged and the \$1.92 billion 2017-2022 CIP is likely to require significant additional debt funding. However, since the city entered into a 25-year consent order with the Pennsylvania Department of Environmental Protection in 2011, a good portion of the CIP projects are now definable. As debt is layered in with Pennvest loans and proposed revenue debt, we would expect that annual debt service costs would also steadily increase as additional debt is issued. We expect that management will continue to raise rates, as it has in the past, to fund these additional costs, as well as cash-funded capital costs and general operating expenses. Total debt has consistently represented no less than about two-thirds of capitalization, which we consider high. Given the large CIP, we do not expect this to change materially over time.

Only about 6% of the city's water and sewer revenue debt outstanding at the end of the 2015 fiscal year is variable rate, and just 3% remains unhedged after taking into account a floating-to-fixed interest rate swap related to the city's 2005B bonds (notional amount of \$51.6 million); these bonds have been purchased by Bank of America pursuant to a variable-rate securities agreement that expires at bond maturity in 2018 and payable at 68.5% of LIBOR. The swap counterparty is Citigroup Inc. Under the swap, the city receives the 2005B bond rate or 68.5% of LIBOR and pays a fixed rate of 4.53%. The additional termination event for the counterparty and city are the same: if the ratings fall below 'A-'. As long as AGM insures the city's swap payments, no termination event based on the city's water and wastewater rating can occur as long as we rate AGM at least 'A'. Counterparty risk is somewhat elevated since we rate Citigroup 'A-/Negative'. The city, however, maintains the option of terminating the swap if Citigroup's ratings fall below the rating trigger; according to management, there are no current plans to change counterparties or terminate the swap.

Enterprise and financial risk profiles

Philadelphia's water and wastewater systems provide service to roughly 1.6 million people in the city with wholesale service providing services to additional residents outside of the city boundaries. The systems predominantly serve retail residential customers in the city, but also serve 12 surrounding townships and utility authorities on a wholesale basis. The number of retail accounts has remained relatively stable since 2001; water accounts total about 480,000 and wastewater accounts about 545,000. The water department customer base, in which the city is the leading user, remains stable and diverse: The 10 leading retail customers accounted for 11% of total revenue in fiscal 2015. Water and wastewater treatment capacities are 680 million gallons per day (mgd) and 522 mgd, respectively. We consider water capacity adequate, given average use of less than half that; sewer average use is about 90% of capacity, and about 20% of the city's capital budget is dedicated to combined sewer overflow mitigation and flood relief.

Because the service base spans both Philadelphia and suburban areas, the demographic profile takes into account a wide range of socioeconomic scales. The city's unemployment rate has historically been above the national average, and was 6.9% for 2015 as reported by the U.S. Bureau of Labor Statistics. In our opinion, income indicators for both the city and county are just adequate, with median household effective buying income (MHHEBI) at 72% of national levels; meanwhile, we consider combined metropolitan area median household incomes good at 114% of the national

average. The MHHEBI of Bucks, Delaware, and Montgomery counties, which are part of the service base, are even stronger at 138%, 114%, and 145% of the national average, respectively.

We view rates as affordable despite county poverty rates and income levels that do not compare well with national averages. As part of our criteria application, we benchmark rate affordability against Philadelphia County's income levels and its poverty rates, which was last reported at about 26% by the U.S. Department of Agriculture. But rate increases have generally been regular and consistent. Since 2006, management has generally been raising rates by about 4%-7%, including the last 5.1% increase effective July 1, 2016. Management estimates that the average monthly combined bill currently totals \$70.87 (including stormwater charges and 600 cubic feet of use).

Despite generally stable financial performance, the city does rely on periodic draws on its rate stabilization fund (RSF) to support operations. During the prior three fiscal years, it drew \$4.7 million from its RSF in 2013, but deposited an aggregate of \$44.4 million during fiscal years 2014 and 2015. Management's latest available financial projections show the water department continuing to rely periodically on RSF draws to meet its minimum coverage requirements, but the projections do not indicate the balance dropping below \$149.8 million.

As reported on an unaudited basis, the system has been able to meet its targeted coverage of debt service by 1.2x. Management can reach this target by making a transfer into or out of its RSF, but the city also remains in compliance with the 90% test, as indicated above. On an audited basis, DSC has also generally remained above this 1.2x figure, and we calculate DSC for the fiscal year ended June 30, 2015 at 1.3x. We base our calculation on net audited operating revenues backing out depreciation and including miscellaneous non-operating revenues and expenses, and debt service on all revenue bonds and Pennvest loans. While operating transfers out for cost reimbursement to other departments is subtracted from net available for debt service, we do not count rate stabilization transfers in either revenues available or an operating expense.

Unrestricted cash levels, including the RSF balance, at the end of each fiscal year also demonstrate stable financial performance, in our view. The combined unrestricted and RSF balances have typically represented 225-275 days' operations (between about \$225 million to \$290 million). The bond ordinance also stipulates that amounts on deposit in the water department's RSF, capital fund, and residual fund (totaling \$668 million at 2015 fiscal year-end) can all be loaned to the revenue fund to pay operating expenses or even debt service because the revenue fund is included as pledged security for the revenue bonds.

We view both the operational and financial management policies for the water department as strong and well-embedded. The city has a full asset management program that helps inform its CIP project prioritization, good communication to ratepayers, related especially to implementation of its long-term control plan, green infrastructure projects, and rate plans; consistent rate adjustments through an independent rate board; and generally overall strong financial management practices applied to all its financial operations.

Outlook

The stable outlook reflects our opinion that the water department should be able to continue meeting or exceeding its financial projections as long as it keeps making consistent rate adjustments and controlling its overall costs in a fashion

consistent with or better than what the projections indicate. The outlook is also supported by the large service base, which adds both geographic and socio-economic diversity to the department's rate base.

Upside scenario

If the city's actual financial performance significantly exceeds current projections, we could raise the rating. However, we view this scenario as fairly remote, at least within the two-year outlook horizon, given the city's large amount of capital and debt needs that we believe will support future financial performance more likely to be in line with what the current projections show, which is generally steady improvement in financial metrics as opposed to significant changes compared to historical trends.

Downside scenario

If financial metrics deteriorate, or a significant amount of additional capital spending is added to the city's CIP, we could lower the rating or revise the outlook to negative.

Ratings Detail (As Of October 7, 2016)		
Philadelphia wtr & wastewtr (BAM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Upgraded
Philadelphia wtr & swr		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Upgraded
Philadelphia wtr & wastewtr		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Upgraded
Philadelphia wtr & wastewtr VRDB - 1997B		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Upgraded
<i>Long Term Rating</i>	AA+/A-1+	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.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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