

Revenue
New Issue

Philadelphia, Pennsylvania

Ratings

New Issues

Water and Wastewater Revenue
Refunding Bonds, Series 2007 A*.. A-
Water and Wastewater Revenue
Refunding Bonds, Series 2007 B*.. A-

Outstanding Debt

Water and Wastewater Revenue
Bonds..... A-

Rating Outlook Stable

*Underlying rating. The bonds are expected to be insured by a bond whose insurer financial strength is rated 'AAA' by Fitch Ratings.

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New Issue Details

Approximately \$187,000,000 Water and Wastewater Revenue Refunding Bonds, Series 2007A, and \$60,000,000 Water and Wastewater Revenue Refunding Bonds, Series 2007B, are expected to sell on March 12 via negotiation with a syndicate led by Siebert Brandford Shank and Co., LLC.

Purpose: The 2007A bonds will be used to refund a portion of the outstanding series 1997A bonds on a current basis and the 2007B bonds will be used to advance refund a portion of the series 2001A bonds. Sale of the 2007B bonds is contingent on market conditions that will yield a net present value savings of at least 3% of the refunded par.

■ Outlook

The underlying 'A-' rating for the combined water and wastewater system (the system) reflects its independent rate-setting authority, manageable capital needs, ample raw water supply, and ample water and wastewater treatment capacity. The system's strong cash and reserve levels, although projected to decline over the next five years, should remain sufficient for the rating category given the system's history of conservative budgeting and solid operating performance. Credit concerns include low collection rates, below-average debt service coverage levels and legal provisions, as well as the service area's declining population and rate-payer base with below-average income levels. The Rating Outlook is Stable.

■ Rating Considerations

The system serves about 475,000 retail accounts within the city as well as the residents of outlying suburban areas under long-term wholesale agreements for water and sewer service. As the city has experienced continued population declines, the system's customer base has seen small annual declines, with retail accounts falling by 1.5% since 2000; modest annual declines in customer accounts are expected to continue. An additional challenge is the below-average income level of the service area population. In 2005, the per capita income of city's residents equaled 77.8% and 76.5% of the state and national levels, respectively.

Legal provisions as required by the bond documents are quite liberal, as the rate covenant allows for the significant use of the rate stabilization fund (RSF) to meet the debt service coverage requirement, thereby allowing below sum-sufficient debt service coverage from operations. The rate covenant requires net revenues and withdrawals from the RSF sufficient to cover 1.20 times (x) senior debt service, and net revenues from operations to cover senior lien debt service by only 0.9x.

Debt service coverage is below average due to the fact that the system is managed very tightly to the 1.2x debt service coverage requirement. However, reserves are adequate; cash levels, with the inclusion of restricted cash for capital and the RSF, are strong at 253 days cash on hand for fiscal 2006. The system's combined monthly rates are average compared to utility systems in the region and represent 1.9% of median household income. Collection rates are low, at about 85% on a current year basis. However, the utility has a strong track record of conservative budgeting practices, offsetting risk related to the low collection rate. A key credit strength is the system's independent rate-setting authority, which does not require approval of the Philadelphia city council. The system raised rates in each year since fiscal 2002, and an additional 4.2% rate increase has been approved for fiscal 2008. Rate increases are expected to continue through fiscal 2013, despite

March 8, 2007

projected drawdowns of the RSF. Fitch Ratings expects the system to maintain its historical practice of actual results outperforming projections and the maintenance of a healthy cushion in the RSF.

The system's proposed capital improvement plan (CIP) for fiscal years 2008–2013 totals \$947 million, up almost \$200 million over the fiscal years 2007–2012 CIP due to the inclusion of several flood and combined sewer overflow mitigation projects. Despite the increase, Fitch believes the spending levels in the CIP are manageable. Funding sources for the CIP include 70% bond proceeds with new money issuance planned in both fiscal years 2008 and 2011, with the remainder generated from cash funding. Management reports that the projects included in the fiscal years 2008–2013 CIP are sufficient to comply with the sewer discharge regulations stipulated in the renewed permits expected to be issued by the U.S. Environmental Protection Agency for the operation of the system's two wastewater treatment plants this spring.

■ Strengths

- Independent rate-setting authority.
- Manageable capital needs.
- Ample raw water supply and water and sewer treatment capacity.
- Strong cash and reserve balances, although projections show significant draws on the RSF.

■ Risks

- Low collection rates.
- Below-average debt service coverage levels and legal provisions.
- Declining service area population, with below-average income levels.

■ Legal Provisions

The legal provisions are somewhat weak, given that the pledged revenues, including the use of reserves, must be maintained at 1.20x of annual senior debt obligations and 1.00x of total annual obligations.

Pledged Revenues: The security for the bonds is a net pledge of system project revenues. Project revenues are defined as all income of the system, as well as all available funds of the system, including cash and certain reserves, primarily from the RSF. Net revenues are project revenues reduced for operations and maintenance expenses.

Rate Covenant: The rate covenant requires that rates, charges, and fees be set for net revenues (including the RSF) to cover the annual debt service payment on senior bonds 1.20x and all debt service and reserve requirements by 1.00x. The general ordinance governing the issuance of system revenue bonds also requires rates and charges to be set to cover senior debt service requirements by 90%, thereby allowing a maximum draw from the RSF of 30% of senior debt service to meet the 120% coverage test.

Additional Bonds Test: Additional parity debt can be issued if a consulting engineer certifies that with the issuance of the additional bonds, the rate covenant will be satisfied in the year the debt is issued, in addition to the following two fiscal years. If capitalized interest is part of the debt structure, the two-year lookout provision begins the year after the capitalized interest period ends. Stronger legal covenants provide for at least a sum-sufficient coverage requirement from operating revenues and/or include a more expansive coverage requirement with a minimum coverage provision for either maximum annual debt service (MADS) or average annual debt service. As a result, the system's legal provisions are quite liberal, and given that the system manages operations tightly to this low coverage level, it is one of the system's primary credit risks.

Reserve Requirement: The debt service reserve requirement is equal to the MADS payment and is held in restricted cash in the sinking fund. The sinking fund may be funded by bond proceeds or may be met by revenues over no more than three fiscal years following the issuance of the bonds.

Flow of Funds: All revenues of the system flow to the revenue fund whereby monies are applied in the following standard order: operating expenses; principal and interest on senior bonds; swap payments; repayment of credit facility advances; debt service reserve fund (DSRF) for senior bonds; DSRF for subordinate bonds; transfer to the city for payment of system-related general obligation bond debt service; rate stabilization fund; capital account fund; and finally, the residual account.

The flow of funds provides for a limited closed-loop structure whereby the city covenants not to direct the transfer of funds from the residual account other than for water and wastewater purposes. However, the structure also provides for an annual transfer from the residual fund to the city's general fund not to exceed

the lesser of \$4.994 million or net reserve earnings defined in the documents. While a transfer to the general fund theoretically dilutes revenues available to pay for system needs, the maximum exposure in this case is minimal, representing only 1.1% of system revenues in fiscal 2006.

■ **Water System**

Management of the combined system falls under the water department, one of the city's 10 operating departments. The water department commissioner is appointed by the managing director of the city and requires mayoral approval. The finances are reported as an enterprise fund in the city's audit and financial management is centralized, with all city operating funds monitored by the city's finance and budget departments. While the revenues are legally and practically separate from other city funds, the centralized system keeps the financial management of the city and water fund closely tied.

As of the 2000 census, the water system was serving a population of approximately 1.7 million people both within the city and in neighboring Montgomery, Delaware, and Bucks counties. At the end of fiscal 2006, the system's retail accounts totaled 475,300 and were 1.5% below the fiscal 2000 level. Since the 1960s, the city's population loss has continued and, as such, the number of retail water and wastewater accounts has declined an average annual 0.1% since 1999. The system projects a 0.2% average annual decline over the next five years. Growth in the outlying suburban areas is a slight mitigant against city population losses, but with only 154,000 people served outside the city, or 9.0% of the total population served, the offset is small. While population losses are a challenge for the city as a whole, the water system specifically struggles with maintaining a large capital burden on a shrinking rate payer base with below-average income levels.

The system operates under two water wholesale contracts. The commitment to provide water to citizens in Bucks County is through an agreement with the Bucks County Water and Sewer Authority (BCWSA). The contract with the BCWSA stipulates that the city will provide up to 35 million gallons per day (mgd), expiring in 2038. The other wholesale agreement is with Aqua Pennsylvania, a private water company providing service to Delaware and Montgomery counties of 4.5 mgd and 2.0 mgd, respectively, through 2026.

The system has two main sources of water supply — the Delaware and Schuylkill rivers. The system draws approximately 56% of its water from the Delaware River, with water treatment at the Samuel S. Baxter plant. The remaining 44% is drawn from the Schuylkill River, with water treatment at the Belmont and Queen Lane treatment plants.

The system maintains ample capacity for both treatment and supply. The system's combined rated treatment capacity is 546 mgd, with maximum capacity of 683 mgd. In 2004, the average demand in fiscal 2006 was 254 mgd and the peak was 300 mgd.

■ **Wastewater System**

The system's wastewater services are more geographically expansive, serving an area of 360 square miles, 130 of which is in the city. Of the 2.2 million people served according to the 2000 census, 700,000 customers lived outside of the city. In fiscal 2006 the system served 470,100 retail customer accounts. A trend in retail accounts has mirrored that of the water system, with total accounts declining by an average annual 0.1% since fiscal 1999.

In addition to its retail accounts, the system services 10 wholesale contracts that provide wastewater treatment to customers outside of the city. Based on total system revenues, the second largest customer behind city government, which contributes 5.8% of system revenues, is BCWSA for both water and wastewater services. The original BCWSA agreement was for the system to treat up to 20 mgd, but actual treatment exceeded that level beginning in fiscal 2003. The system and BCWSA recently agreed to amend and extend the contract. The new contract expires in fiscal 2038 and allows for 24 mgd of treatment. The agreement also included a settlement payment of \$18.6 million to the system to cover the excess treatment under the old contract, which was paid in two installments by BCWSA in fiscal years 2005 and 2006. The remaining wholesale accounts supply a small portion of system revenues; in fiscal 2006, 7% of total system revenues were derived from the wholesale sewer customers.

The system's wastewater facilities consist of three water pollution control plants, 16 pumping stations, 2,980 miles of sewer lines, and a centralized biosolids handling facility. The system also consists of three stormwater drainage districts. Wastewater treatment capacity is ample, as the system operates at approximately 50% of the 1,044-mgd maximum flow

capacity. All three treatment plants currently are operating under National Pollutant Discharge Elimination System (NPDES) permits that expired on July 7, 2005. Draft permits are now available for public comment and should be finalized at the end of May 2007, to be effective for a five-year period. The stormwater system is operating under a permit approved in September 2005 for a five-year period.

■ Capital Improvement Plan

The system's overall debt load is moderate at about \$1,100 per customer. The most recent revenue bond issuance for capital spending occurred in fiscal 2005. The next new money offering is contemplated for fiscal 2008. The system has entered into two separate rate lock agreements in connection with the 2008 bond offering in a combined amount of \$180 million. The counterparties to this transaction are Merrill Lynch and Wachovia. The amount of the issuance is expected to be in the range of \$325 million.

The system has two swaps outstanding, entered into to synthetically fix the interest rate paid on certain series of bonds. The counterparty on both swaps is Citigroup. The notional amount of swapped debt is \$462 million, or a manageable 27% of total system debt outstanding. Regularly scheduled swap payments rank on parity with debt service on senior lien obligations, while termination payments would rank subordinate.

Major plant expansion for wastewater treatment occurred between the 1970s and the 1990s when the system moved from primary to secondary treatment. Since then, the system's plans have been manageable and focused on maintenance of existing infrastructure. The system's proposed six-year CIP for fiscal years 2008–2013 totals \$947 million. Although Fitch believes this amount of spending is manageable for the system, it is notable that the size of the CIP increased substantially from the fiscal years 2007–2012 CIP amount of \$752 million. The increase in spending is attributable to two sources; flood mitigation projects and combined sewer overflow (CSO) mitigation projects required by the new NPDES permits. These projects constitute \$260 million of the CIP. Other major components of the CIP include improvement to treatment plants (\$252 million), projects related to collector and conveyance systems (\$278 million), and engineering and administration projects (\$137 million). Projects associated with sewer and water main replacement should help decrease the system's large amount of water unaccounted for. The percentage of water unaccounted

for was a high 33% in fiscal 2006. While approximately one-half of the lost water is estimated for fire use and other legitimate city functions, accurate measurements are difficult to obtain, and the resultant 15% figure is still above average. To the system's credit, some success is evident in the effort to reduce lost water, as the current level is below the 40% in fiscal 1995.

Management reports that the fiscal years 2008–2013 CIP includes all projects necessary to comply with the standards of the new NPDES permits. Most of these projects are related to CSO mitigation. The system is currently in the second phase of its CSO mitigation projects, and anticipates that an additional phase may be required by the next round of NPDES permitting, to take place after expiration of the permits now pending approval. The cost of the third phase is estimated to be an additional \$200 million–\$300 million, which is a manageable cost for the system.

The proposed fiscal years 2008–2013 CIP will be about 70% debt funded, which is a level of borrowing consistent with past capital plans. The system plans to issue senior lien revenue bonds in fiscal years 2008 and 2011 to fund this cost. The remainder of the CIP will be cash funded from reserves on hand in the capital fund and any surplus revenues generated from operations of the system. The system is contemplating withdrawing funds from its debt service reserve funds, which total about \$130 million, and issuing surety bonds to replace these funds. If these funds are withdrawn they will serve as an additional funding source for the CIP over a two year period.

■ Rates and Finances

Under the city's home rule charter from 1949, the system has independent rate-setting authority. The system must comply with standards established by the city council but does not need city council approval to adjust rates. Independent rate-setting authority is a key credit strength for the system.

The system has raised rates an average annual 5.2% since fiscal 2002, including a 6.7% increase effective in fiscal 2007. Prior to fiscal 2002 the system had not increased rates since fiscal 1995. From fiscal years 1996–2001 the system drew down the balance in the RSF to accommodate the rate freeze. The average combined customer bill, based on a ⁵/₈-inch meter and annual usage of 10,000 cubic feet, equals \$51.17 per month.

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)

	2003	2004	2005	2006	2007*	2008*	2009*	2010*	2011*	2012*	2013*
Operating Statement											
Operating Revenues	409,844	416,283	452,035	473,628	503,368	536,377	549,931	574,236	586,231	605,239	638,573
Non-Operating Revenues	44,384	5,335	11,427	16,446	0	0	0	0	0	0	0
Gross Revenues	454,228	421,618	463,462	490,074	503,368	536,377	549,931	574,236	586,231	605,239	638,573
Operating Expenses (Excluding Depreciation)	(250,104)	(262,049)	(277,705)	(270,294)	(295,896)	(326,581)	(329,492)	(341,115)	(353,131)	(365,557)	(378,400)
Net Income	204,124	159,569	185,757	219,780	207,472	209,796	220,439	233,121	233,100	239,682	260,173
Transfers from RSF In/(Out)	(16,767)	28,779	628	(21,553)	28,590	49,870	19,370	17,000	(750)	(9,220)	320
Net Income Adjusted for RSF Transfer	187,357	188,348	186,385	198,227	236,062	259,666	239,809	250,121	232,350	230,462	260,493
DS Requirements — Senior Lien	157,247	158,081	156,460	166,352	172,893	174,827	183,698	194,264	194,250	199,732	216,808
DS Requirements — Junior Lien	160	110	99	87	64	1,227	1,227	1,227	1,227	1,227	1,227
Financial Statistics											
DS Coverage from Operations**	1.3	1.0	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
DS Coverage Including RSF Transfers**	1.2	1.2	1.2	1.2	1.4	1.5	1.3	1.3	1.2	1.1	1.2

*Projected. **Including junior lien debt. RSF – Rate stabilization fund. DS – Debt service.

Compared with other urban systems in the U.S., rates are average, representing 1.9% of median household income based on the 2007 rates. A rate increase of 4.2% has been approved for fiscal 2008. While not yet approved, the system plans on increasing rates annually through fiscal 2013. The projected rate increases are 10%, 6.3%, 6.3%, 5.0%, and 5.0% for fiscal years 2009–2013.

Billing is monthly, and collection rates are low. While Fitch views reported efficiencies associated with the automatic meter reading system positively, the system reports only marginal improvement in collection rates. The current collection rate is approximately 85%, representing revenue collected through the close of the fiscal year, although the city reports stronger total collection rates. Regardless, collection rates are low and one of the main concerns for the credit over the long term.

The low collection rates are offset somewhat by the system's conservative budgeting practices, most readily identified by comparing actual performance with projections. Since fiscal 1994, the system has reported revenues above projections and expenses below projections. Such strong performance is supported by realistic budgeting techniques, whereby the system plans on 85% collections of current year revenues, 8.75% of prior year revenues, and 2.5% of revenues overdue by more than one year. The system also has the ability to put a lien on property if the bill is not paid and has shut off some customer accounts for nonpayment. As of June 2006, 16,200 of the city's more than 470,000 retail accounts carried a nonservice status due to non-payment.

The system's stormwater charge was reallocated from fiscal years 2001–2004 to create a more balanced burden of charges between residential and commercial customers. Prior to the change, residential customers were bearing 75% of the cost burden, which since has been reallocated to approximately 50%. The system is considering a parcel-based fee structure to maximize the use of its advanced geographic information system.

The system's historical financial performance is consistent for utilities rated in the 'A' category. The build-up of cash levels and reserves helps to offset financial operations, which are tightly managed to the low 1.20x coverage level required by the bond documents. The 1.20x coverage was met in fiscal years 1998–2001 only through drawdowns in the RSF to offset constant rates, bringing coverage from operations to a below-sum-sufficient 90% level. Additionally, while the system has implemented rate increases annually since fiscal 2002 and plans to continue doing so through fiscal 2013, continued draws on the RSF also are projected, indicating maintenance of the below-average operating performance.

The city managed to build the RSF up from \$69 million in fiscal 1994 to a strong \$203 million in fiscal 1998. Contributions to the RSF consisted of annual operating surpluses and the prudent deposit of one-time financial benefits from refinancing outstanding debt and a portion of an upfront payment from one of the aforementioned interest rate swap agreements. At the close of fiscal 2006 the system added \$21.6 million to the RSF, bringing the balance to \$86 million. However, through fiscal 2013, the RSF

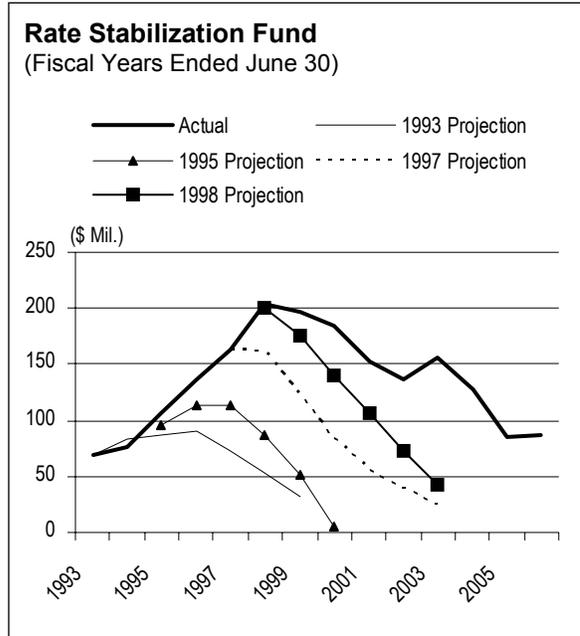
is set to be drawn down to \$10.2 million. Fitch expects conservative budgeting practices to continue and for the RSF balance to be maintained at levels above those projections. Indeed, in fiscal 2007 a \$39 million draw on the RSF was budgeted. Midway through the fiscal year better than budgeted results indicate that the draw will be close to \$5 million. Depletion of the RSF would bring the system's reserves to a level inconsistent with the current rating category.

The system's unrestricted cash balance at the close of fiscal 2006 represented a below average level of liquidity for the rating category at \$50.4 million, equal to 68 days cash on hand. Restricted cash includes the capital fund, RSF, and residual fund cash. Although restricted, Fitch views cash in the capital fund and RSF as added financial flexibility. When the \$136 million of capital and RSF restricted cash is included, days cash on hand is elevated to a strong 253 days for fiscal 2006. The city deposits (as required by the bond covenants) 1% of net property, plant, and equipment annually to fund the capital account.

■ **Service Area**

The service area of the combined system serves the city (general obligation bonds rated 'BBB+' by Fitch) and outlying suburban areas. The city's population, according to the 2000 census, was 1.5 million people. One of the system's long-term challenges will be managing continued losses in its customer base. The city's population has been on a downward trend since the 1960s. The 1960 census recorded two million people, which has since dropped a dramatic 24% to reach 1.5 million in the 2000 census. Estimates for 2005 show the trend continuing, with a 3.6% loss since the 2000 census.

Another challenge for the system, like many older urban systems, is the below-average income levels of the rate payers. Per capita personal income in 2005 represented 77.8% of the commonwealth average and 76.5% of the national average. However, compared



with 2000 figures, the city's income levels grew at a slightly higher pace than the commonwealth's and the nation's.

Employment levels posted declines each year from 1998–2004 before increasing by 1.1% in 2005. Indeed, the city's economy has shown signs of improvement in the past several years. The unemployment rate declined from a high of 7.6% in 2003 to 6.4% in 2006. The city's economy is diversified with higher education, health care, finance, utilities, and manufacturing employers contributing the largest proportion of wage taxes to the city's general fund. Top contributors include the University of Pennsylvania, Temple University, First Union Services, Consolidated Rail Corporation, and University of Pennsylvania Hospital. Overall employment in the city is dominated by the education and health services, retail trade, and government employment sectors.

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