STANDARD & POOR'S

PUBLIC FINANCE

Philadelphia, Pennsylvania

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RatingsDirect
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Credit Profile		
US$227.54 mil wtr & swr rev bnds ser 2007 due 08/01/2027		
Long Term Rating	A-/Stable	New
Philadelphia wtr & swr		
Long Term Rating	A-/Stable	Aff

Rationale

The 'A-' rating on Philadelphia, Pa.'s water and sewer revenue bonds reflects:

- A continued reliance on rate stabilization fund support (projected to be depleted by 2010) to meet covenanted coverage levels;
- Weak demographic trends, including long-term population decline, that result in overcapacity within the water system;
- Weak, but stable, collections resulting in a significant level of receivables, bad debt write-offs, and service shutoffs; and
- A sizable capital improvement program (CIP).

Positive credit factors include the following:

- With the rate stabilization funds, coverage of senior-lien debt service is adequate at 1.20x. Coverage of revenue debt and transfers to the general fund, capital fund, and residual fund is 1.08x.
- Rates, which are currently low, are expected to rise to moderate levels as a result of anticipated rate increases. A 3.8% rate increase effective July 1, 2007, has been adopted, and increases ranging from 5% to 10% over each of the next five years are under consideration. Such increases are necessary to enable the maintenance of coverage levels as rate stabilization funds are depleted.
- The seasoned management team emphasizes, and is achieving, improved system maintenance, stronger collections, and more comprehensive fiscal monitoring systems.

Philadelphia has been assigned a Standard & Poor's Debt Derivative Profile (DDP) overall score of '2' on a scale of '1' to '4', with '1' representing the lowest risk and '4' the highest. The overall score of '2' reflects Standard & Poor's Ratings Services' view that Philadelphia's water and sewer enterprise fund-related swap portfolio reflects a neutral credit risk at this time.

Philadelphia's water and wastewater systems provide service to roughly 1.7 million and 2.2 million residents in the city and suburbs, respectively. The systems serve predominantly retail residential customers. The number of retail accounts has been slowly declining over the past several years—in step with the city's population decline, which was reported at roughly 13% over the past decade. Both water and wastewater accounts total about 478,000. Rates are currently moderate at $51 for a combined residential water and sewer bill (for the typical customer averaging 9.6 million cubic feet of usage). A recently adopted 3.8% rate increase and anticipated rate increases over the next several years, however, will likely boost the bill. These rate increases are necessary as the system weans itself from reliance on rate stabilization reserves. Although the department made a deposit to the rate stabilization reserve in 2006, there has a been a general trend of usage of these reserves to meet covenanted coverage. These reserves were expected to be depleted by 2010. However, strong operations for fiscal 2007 are expected to reduce the need to draw on the reserve by at least $22 million, thereby prolonging availability of the reserve. The rate stabilization reserve balance totaled $115 million as of fiscal year-end 2006.

The water department is headed by an experienced and long-standing management team that has implemented a number of operational improvements in recent years. The water department is in full regulatory compliance with safe water regulations. In addition, the system's plants are now regularly cited for the high quality of their operation.

Outlook

The stable outlook reflects the expectation that the water department will adopt sufficient rate increases to maintain coverage levels as rate stabilization reserves are depleted, which is forecasted over the next several years.

Service Area And Economy

The water system serves a population of more than 1.67 million, which includes retail service in Philadelphia and wholesale service to Bucks County, Pa., and parts of Delaware and Montgomery counties. The department maintains 475,300 retail water accounts and 470,100 retail wastewater accounts. The number of retail accounts has been slowly declining since 1991 as the service area has lost population.

The combined system is predominantly retail; wholesale customers accounted for a small percent of revenues. The retail service is to predominantly residential customers. The customer base is diverse, with the 10 leading customers accounting for about 12% of revenue, led by the city of Philadelphia, which accounts for 5.8% of revenue.

The Philadelphia regional economy is highly diversified, with an emphasis on health care services, pharmaceutical manufacturing, aerospace manufacturing, education services, and transportation services. While buffering the Philadelphia economy from a more severe downturn, this diversity has also limited its expansion as many of the sectors that form the region's economic base are growing slowly. The region's other weaknesses include out-migration from the center city, relatively high business costs, a large number of poorly educated workers that live in Philadelphia, and high tax rates.

Despite the recent downturn, the city's housing market has performed well, in part as a result of low interest rates and in part influenced by gains made under the city's Neighborhood Transformation Initiative. This, in turn, has translated into property value growth and building activity, which, in turn, increased property tax and real estate transfer tax revenue.

The recent downturn in the Philadelphia economy has been mild relative to past recessions. After posting modest employment gains from 1998-2000 (the first gains in a decade), net job losses have been registered over the past three years, though at levels generally in keeping with national trends. The city's 5.8% unemployment rate as of December 2006 has edged off of peaks posted in 2002 and 2003; as with many urban centers, however, it remains well above the state and national rates. A long history of out-migration has fostered a large disparity in education and income levels between central city and suburban residents. Philadelphia's population declined 4.3% over the 1990-2000 period; recent data suggest that this long-term trend is continuing. However, the rate of decline has eased, due in part to economic development efforts amid the center city. Median household effective buying incomes within the city represent just 74% of the U.S. benchmark.

Education and health services comprise a large 18% of metropolitan area jobs. Growth prospects are good for the metropolitan area's core of knowledge-based industries, which include health services, pharmaceuticals, education, and biotechnology, chiefly due to a highly educated workforce drawn from suburban areas. With 45 hospitals and seven medical schools, the area is one of the largest health care centers in the world and is home to more than 80 degree-granting institutions of higher education. However, high-tech industries provide a relatively small portion of total employment.

Redevelopment of the city's Navy shipyard continues to provide economic benefit, offsetting losses incurred upon the closure of several defense facilities (employing 20,000) in the 1990s. Long-range plans for the shipyard are for mixed-use development and employment levels in the 15,000-20,000 range.

Finances/Capital Improvement Program

Finances

Financial operations have been stable, but also reliant on transfers from a rate stabilization reserve created with the series 1993 bond issuance of $69 million. This use of these reserves and interest earnings enables the system to meet its total obligations and satisfy its 1.2x rate covenant coverage level. The rate stabilization reserve's purpose is to maintain assets to be drawn down to offset future operating shortfalls and corresponding rate increases in the operating fund. The rate stabilization fund had a balance of $115 million at fiscal year-end 2006, down from its $201 million fiscal 1998 peak. In fiscal 2006, the department made a deposit to the rate stabilization reserve, extending its projected "life" to 2010. As such, coverage of debt service prior to the transfer was 1.32x in fiscal 2006. The department had projected further drawdowns over the next four years, virtually depleting the reserve by 2010. However, better-than-anticipated operations year-to-date in fiscal 2007 have diminished the need to utilize the reserves.

The department has a history of poor revenue collections, which was partially attributable to a quarterly billing cycle and a four-month moratorium on shut-offs during the winter months. Implementation of monthly billing in fiscal 1993 improved the collection rate, which has now leveled off at around 85%-86%, still posing a credit concern. The water department has employed other methods to improve collections, including the use of collection agencies, shutting off delinquents after they miss two billing cycles, and installation of meters with automatic reading devices to reduce billing disputes. There are roughly 16,000 water/wastewater accounts that are in nonservice status due to service shutoffs for nonpayment. Allowance for doubtful accounts is more than $78 million at fiscal year-end 2006, down somewhat from prior years.

Capital improvement program

The CIP for fiscal 2008-2013, including the current capital budget, totals $947 million. Major items include treatment plant improvements and new and reconstructed conveyance and collector systems. About 70% of the costs of the CIP are expected to be funded with the proceeds of debt. The city expects most of the debt will be water and wastewater revenue bonds with a portion funded from loans from the commonwealth to the city through Pennvest. Following this current debt issue, the city expects to next issue $375 million bonds in 2011.

Legal Provisions

The bonds are secured by a net pledge of the water and wastewater system. Under the indenture, revenues are defined as those generated from rates and charges of the system, transfers from the rate stabilization fund, and interest earnings from the trust accounts. Rates must be set to provide current revenues plus transfers from the rate stabilization fund of at least 1.2x annual debt service on the revenue bonds and 1.0x coverage when including all subordinate debt and certain other transfers.

Additional debt can be issued as long as the city is in compliance with the rate covenant at the time of issuance and net revenues are projected to be sufficient for the two fiscal years following the debt issuance by a consulting engineer.

Additional bondholder protection is provided by the requirement that net revenues of the system "exclusive of transfers from the rate-stabilization fund" fund 90% of operating requirements. This provision also applies to the additional bonds test.

The flow of funds is closed, eliminating concerns about transfers of funds between the general fund and water department. However, the indenture allows for an interdepartmental charge paid to the city for compensation for support services provided, as well as transfers to fund annual GO bond debt service payments. The indenture requires a fully funded debt service reserve fund at aggregate maximum annual debt service. A rate review is required annually.

Debt Derivative Profile

Philadelphia has been assigned a Standard & Poor's DDP overall score of '2' on a scale of '1' to '4', with '1' representing the lowest risk and '4' the highest. The overall score of '2' reflects Standard & Poor's view that Philadelphia's water and wastewater enterprise fund-related swap portfolio reflects a neutral credit risk at this time due to the following factors:

- Limited counterparty risk given significant trigger spreads,
- Above-average economic viability of the swap,
- Good management practices with a formal swap management policy, and
- Remote termination risk.

Philadelphia has two water and sewer enterprise fund-related swaps. The city's floating to fixed swaps, in conjunction with the water and wastewater revenue bonds series 1993 and 1995, are with Citigroup (AA). Counterparty risk was low due to the trigger spread between the counterparty's rating and a credit event. Additionally, due to the low degree of termination risk resulting from the fact that the swap termination payments are insured by Financial Security Assurance Inc., coupled with the above-average economic viability of the swap, Standard & Poor's is not factoring in these values as contingent liabilities for the city at this time.

Ratings Detail (As Of 01-Mar-2007)		
Philadelphia wtr & swr (FGIC)		
Unenhanced Rating	A-(SPUR)/Stable	Affirmed
Philadelphia wtr & swr (FSA)		
Unenhanced Rating	A-(SPUR)/Stable	Affirmed
Philadelphia wtr & wastewtr VRDB ser 2003 (FSA)		
Long Term Rating	AAA/A-1+/Stable	Affirmed
Unenhanced Rating	A-(SPUR)/Stable	Affirmed
Philadelphia wtr & wastewtr VRDB ser 2005B (FSA)		
Long Term Rating	AAA/A-1+/Stable	Affirmed
Unenhanced Rating	A-(SPUR)/Stable	Affirmed
Philadelphia wtr & wastewtr (AMBAC)		
Unenhanced Rating	A-(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Moody's Investors Service

Global Credit Research
New Issue
5 MAR 2007

New Issue: Philadelphia (City of) PA

MOODY'S ASSIGNS A3 RATING TO CITY OF PHILADELPHIA'S $247.54 MILLION WATER AND WASTEWATER REVENUE REFUNDING BONDS; OUTLOOK REMAINS STABLE

AFFIRMATION OF RATING APPLIES TO APPROXIMATELY $1.82 BILLION IN PARITY DEBT, INCLUDING THIS ISSUE

Philadelphia (City of) PA Wtr. & Sew. Ent.
Water/Sewer
PA

Moody's Rating

ISSUE		RATING
Water and Wastewater Revenue Refunding Bonds, Series 2007A		A3
Sale Amount	$188,635,000	
Expected Sale Date	03/09/07	
Rating Description	Revenue	
Water and Wastewater Revenue Refudning Bonds, Series 2007B		A3
Sale Amount	$58,625,000	
Expected Sale Date	03/09/07	
Rating Description	Revenue	

Moody's Outlook Stable

Opinion

NEW YORK, Mar 5, 2007 -- Moody's Investors Service has assigned an A3 underlying rating and stable outlook to the City of Philadelphia's $188.64 million Water and Wastewater Revenue Refunding Bonds, Series 2007A and $58.6 Series 2007B. At this time, Moody's has affirmed the A3 and stable outlook to the City's approximately $1.82 billion in outstanding water and wastewater revenue debt, including this issue. The medium-grade rating reflects the system's strong management, improved financial operations, significant cash balances in the Rate Stabilization Fund, ongoing improvements in environmental compliance, and an above-average amount of debt. Although conservative projections show that management may draw on the Rate Stabilization Fund over the next several years to meet the 1.2 coverage mandated by the rate covenant, recent improvement to financial operations, as well as anticipated ongoing rate increases, will likely mitigate the dependence on this fund. The closed-loop system is effectively segregated financially from the City's general funds and accounts, with a daily sweep of customer revenues to a third-party fiscal agent. In addition, a moderate portion of revenues is related to wholesale services provided under contract to various suburban communities outside of the City.

STRONG OPERATING AND FINANCIAL MANAGEMENT

The management team of this large combined water and wastewater system has produced a strong record of operational and financial achievements over the past decade. Operational achievements include continued improvements in environmental compliance, launch of a proactive water main replacement program that has significantly reduced the number of main breaks, and installation of automatic meters for a significant proportion of residential customers. In addition to the resulting improvements in billing accuracy, the billing cycle was accelerated to a monthly basis. On the financial side, operating costs have been well controlled, with significant reductions in some areas such as contracted electricity costs and costs of operating the biosolids recycling center. As discussed in detail below, management has been able to maintain significant cash balances that support the system's working capital needs, help with rate stabilization, and provide for contingencies.

Rate-setting authority resides with the Water Commissioner, although there is some input from the City Council regarding standards and due process. A four-stage increase in water and sewer rates went through a required hearing process several years ago with little dispute. Rates were increased by 12.8% in fiscal 2005, 1.9% in 2006, and 6.7% in 2007; an additional increase of 4.2% has been approved for fiscal 2008. In anticipation of additional debt to be issued in fiscal 2008, the City is currently undertaking an Engineering and Rate Study to determine what further increases will be needed to maintain coverage. Even with the increases, rates are expected to remain well below average regional rates.

SYSTEM IS FINANCIALLY SEGREGATED FROM CITY'S GENERAL FUNDS

By covenant in the bond ordinance, the City is required to deposit all water and wastewater funds with an independent fiscal agent (currently, Wachovia Bank N.A.; senior unsecured rated Aa1) and to keep such funds separate and apart from general City funds and accounts. Although the Water Revenue Bureau within the City's Revenue Department performs billing and collection for customers located in the City, there is a daily sweep of collected funds to the fiscal agent. Per the bond ordinance, the City may not borrow any water or wastewater funds for other City purposes, including temporary or seasonal cash flow needs. These provisions were put in place to protect water and wastewater bondholders during the early 1990's, when the City's General Fund was experiencing significant financial stress. The City's general obligation bonds are currently rated Baa1/stable outlook.

The ordinance does permit an annual transfer to the City of up to $4,994,000, but not to exceed the actual amount of interest earnings on the system's debt service reserve fund. Apart from this, the water and wastewater system is a financial closed-loop, with all revenues and cash balances available for system purposes only, including capital purposes.

Over the next several years, Moody's expects the economic and demographic base of the service area, including that of the City of Philadelphia, to remain fairly stable. Although the city's population declined moderately during the 1990's, the 2000 census revealed that the loss was significantly less than previously estimated. The city economy produced fairly good growth in employment in the late 1990s through 2000, but some decline from 2000 to 2003. The decline flattened in fiscal 2004, and then grew by about 1.1% in 2005. Results for 2006 demonstrate continued growth, with each month showing an increase over the same month of the prior year. The suburban portions of the service area are wealthier and somewhat faster-growing than the city, but are much less significant to the system as they account for less than 10% of total customer revenues.

IMPROVED FINANCIAL OPERATIONS IN RECENT YEARS; SIGNIFICANT CASH BALANCES MAINTAINED

The system has built and maintained a strong level of cash balances over recent years in the Rate Stabilization Fund and the Residual Fund. The combined balance in these funds at the end of fiscal 2006 was approximately $155 million, up from fiscal 2005 when the combined balance was approximately $138 million. Both funds are pledged as security for bondholders, and are in addition to a Debt Service Reserve Fund equal to maximum annual debt service.

The significant Rate Stabilization Fund and Residual Fund were built up through conservative annual budgeting and multi-year financial planning. While the rate covenant in the bond ordinance requires 1.2x debt service coverage, transfers from the Rate Stabilization Fund may be used to "manage to" the required level. From fiscal 2002 to 2006, transfers were made between Rate Stabilization Fund and the Revenue Fund, allowing the system's officials to manage debt service coverage to meet the 1.2x rate covenant in years of insufficient net revenues. Although fiscal 2004 coverage was met with a significant $28.8 million transfer from the Rate Stabilization Fund to the Revenue Fund, only a $628,000 transfer was needed in fiscal 2005, the effect of the 12.8% rate increase. In fiscal 2006, despite the expectation of an additional transfer, officials were able to transfer $21.6 million back into the Rate Stabilization Fund due to conservative budgeting, revenue growth, and control of expenditures. Although an additional transfer out of the Rate Stabilization Fund of $36.2 million was originally projected for fiscal 2007, mid-year projections indicate a significantly reduced transfer by the end of the year. Conservative projections in past years have showed the depletion of the Rate Stabilization Fund by 2008 or 2010, but improved financial results may lead to the maintenance of sufficient cash in that fund beyond 2010. Projected, although unapproved, annual rate increases are expected to be sufficient to allow the system to meet its rate covenant without additional transfers over time. When available, however, Moody's expects management to continue to utilize Rate Stabilization Fund transfers to mitigate rate increases. Maintenance of the current rating is predicated on the system's ability to either maintain strong cash balances available for debt service or to maintain adequate debt service coverage through growth in net operating revenues while still maintaining adequate reserve levels.

In addition, approximately $20 million per year has been expended from internal funds for capital maintenance and improvements, a trend that is expected to continue and that reduces the need for additional debt finance. These transfers are in addition to a requirement of the bond ordinance to transfer a minimum annual amount to the capital account (approximately $16 million in recent years) to support plant renewal and replacement.

The Water Department also expects to replace a portion of its Debt Service Reserve Fund, currently sized at approximately $130 million, with a surety bond sometime after July 1, 2007. This freed-up cash will be placed in a new fund called the Special Water Infrastructure Account and be used for the cost of renewals, replacements and improvements. System management has yet to determine the amount of the reserve requirement that will be covered by the surety.

ABOVE-AVERAGE DEBT LOAD; IMPROVED COVERAGE FROM RECURRING REVENUES

The system's above-average debt load mainly reflects major investments in the early 1990's to improve environmental compliance, plus a significant ongoing program to replace aging water and sewer mains throughout the city. The ratio of debt to net plant and working capital has remained close to 80%, more than twice the national median for combined water and wastewater systems (as calculated by Moody's) but at the same time similar to some other large urban systems. The debt load, together with relatively low customer rates and charges, has resulted in low measures of debt service coverage from net recurring revenues in some years. Excluding transfers from the Rate Stabilization Fund, coverage hit a recent low of 1.04 times in fiscal 2004. The large rate increase for fiscal 2005 strengthened net revenue coverage to 1.26 times and the trend continued in fiscal 2006 with a satisfactory net revenue coverage of 1.37 times.

The practice of using transfers from the Rate Stabilization Fund to meet coverage has helped to keep customer rates relatively low, although an additional debt issue expected in 2008 will necessitate additional rate increases through 2013. The additional debt will also serve to keep the debt ratio, which was 78.7% in fiscal 2006, at elevated levels. As mentioned above, transfers from the Rate Stabilization Fund in excess of actual debt service flow to the Residual Fund, which is also a pledged fund, but not utilized in the calculation of debt service coverage.

With a good current level of environmental compliance, and some excess wastewater treatment capacity that allows for less costly solutions to stormwater overflow management, the system's capital improvement program over the next five years (2008-2012) is expected to be moderate. The $700 million program will focus on replacement of aging water and sewer mains and improvements to the wastewater treatment plants. A new money bond sale in the amount of $325 million is planned for fiscal 2008. An additional $325 to $375 million issue is expected to be issued in fiscal 2011.

A portion of the City's water and sewer debt is variable rate (28% of outstanding principal), some of which is unhedged (4.5% of outstanding principal). The City currently has two synthetic fixed rate swaps on water and sewer debt outstanding, one related to the 2003 variable rate issue and the other related to the 2005 variable rate issue. Both swaps have Citigroup Financial Products (senior secured rated Aaa) as the counterparty. For each swap, the City makes payments based on a fixed rate and receives payments based on either the Actual Bond Rate or a percentage of LIBOR. The current termination values of the swaps are significant, although the City does have the ability to bond out for termination payments if need be. The swaps are also insured by FSA.

The City has also entered into forward swaps with Merrill Lynch (senior unsecured rated Aa3) and Wachovia Bank in anticipation of the fiscal 2008 bond issuance. The notional amount is on $180 million of the $325 total issuance. The City will make payments based on a fixed rate and receive payments based on BMA.

Outlook

The credit outlook for the City's Water and Wastewater Revenue Bonds remains stable. The outlook reflects our anticipation of continued good operating and financial management, including maintenance of healthy (though possibly reduced) balances in the Rate Stabilization and Residual Funds and/or satisfactory coverage. The system's debt load is expected to remain high and net revenue coverage, exclusive of Rate Stabilization Fund transfers, may return to narrow levels. The economic and demographic base of the service area, including that of the City of Philadelphia, is also expected to remain fairly stable over this period.

What could make the rating go UP:

- Maintenance of strong cash reserves and increased debt service coverage by operating net revenues

- Reduction in debt ratio

What could make the rating go DOWN:

- Reduction in cash reserves without improvements in coverage

- Violation of rate covenant

KEY STATISTICS:

Number of Accounts:

Water - 475,300

Wastewater - 470,100

Operating Ratio, FY 2006: 55.5%

Senior Lien Debt Service Coverage (w/o transfers), FY 2006: 1.37x

Peak Senior Lien Debt Service Coverage (w/o transfers, FY 2006 Revenues: 1.31x

Debt Ratio, FY 2006: 78.7%

Payout of Principal (10 years): 59.1%

Post Sale Parity Bonds Outstanding: $1.82 billion

City 1999 Per Capita Income as % State: 79.1%

City 1999 Median Family Income as % State: 75.3%

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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.

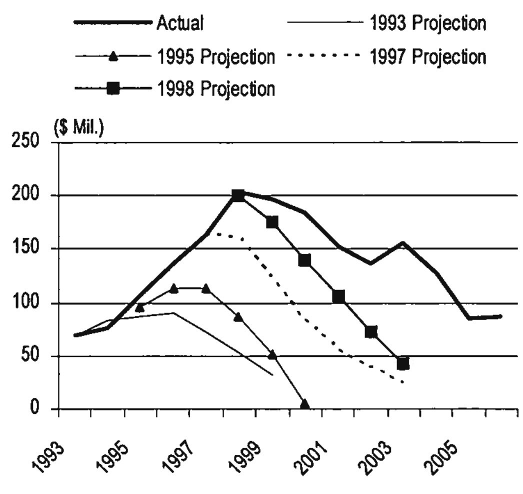
The system's stormwater charge was reallocated from fiscal years 2001–2004 to create a more balanced burden of charges between residential and commercial customers. Prior to the change, residential customers were bearing 75% of the cost burden, which since has been reallocated to approximately 50%. The 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.

Rate Stabilization Fund
(Fiscal Years Ended June 30)



■ 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.