

*In the opinion of Bond Counsel, under existing law and assuming continuing compliance by the Authority with certain covenants which relate to the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), interest on and accruals of original issue discount with respect to the Bonds are excluded from gross income for Federal income tax purposes and are not items of tax preference for purposes of Federal alternative minimum tax; provided, however, that certain federal income tax consequences related to the alternative minimum tax may arise from ownership of the Bonds. The Bonds are exempt from personal property tax in Pennsylvania and the interest on the Bonds is exempt from Pennsylvania corporate net income tax and from Pennsylvania personal income tax (See "Tax Matters" herein).*

**NEW ISSUE – Book-Entry Only**

**RATINGS: See "Ratings of the Bonds" herein**

## **THE PITTSBURGH WATER AND SEWER AUTHORITY**

**\$50,385,000**

### **Water and Sewer System First Lien Revenue Bonds Series of 2005**

**Dated:** Date of Delivery

**Due:** September 1, of the years shown on inside front cover.

The Water and Sewer System First Lien Revenue Bonds, Series of 2005 (the "Bonds"), will be special limited obligations of The Pittsburgh Water and Sewer Authority (the "Authority" or "PWSA"). The Bonds will be issued under a Trust Indenture dated as of October 15, 1993, as amended and supplemented by a First Supplemental Indenture dated as of July 15, 1995, a Second Supplemental Indenture dated as of March 1, 1998, a Third Supplemental Indenture dated as of March 1, 2002, a Fourth Supplemental Indenture dated as of September 15, 2003 and a Fifth Supplemental Indenture dated as of June 1, 2005 (collectively, the "Indenture" or "First Lien Indenture") between the Authority and J.P. Morgan Trust Company, National Association, as Trustee (the "Trustee"). The Indenture provides that the Bonds shall be secured by a first lien pledge of the Receipts and Revenues of the Authority, after deduction of the proper expenses of the operation, maintenance and repair of the water supply and distribution and wastewater collection systems of the Authority (the "Water and Sewer System"), and reserves therefor as provided in the Indenture.

The scheduled payment of the principal of and interest on the Bonds when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Bonds by MBIA Insurance Corporation.



The proceeds of the Bonds will be used (a) to pay for capital improvements to the Authority's Water and Sewer System; (b) to fund certain capitalized interest; and (c) to pay all costs of issuance with respect to the Bonds.

The Bonds are issuable only as fully registered bonds initially registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York, which will act as securities depository for the Bonds. Purchasers will not receive certificates representing their ownership interest in the Bonds purchased. So long as Cede & Co. is the registered owner, or nominee of DTC, references herein to "Owners" or "registered owners" shall mean Cede & Co., as aforesaid and shall not mean the Beneficial Owners (as defined herein) of the Bonds. Beneficial ownership of the Bonds may be acquired in denominations of \$5,000, principal amount, and any integral multiple thereof.

Principal and interest on the Bonds will be paid by the Trustee. So long as DTC or its nominee, Cede & Co., is the registered owner, such payments will be made directly to Cede & Co. Disbursement of such payments to the DTC Participants is the responsibility of DTC and disbursement of such payments to the Beneficial Owners is the responsibility of the DTC Participants and the Indirect Participants, as more fully described herein. Interest will be payable on the Bonds on March 1 and September 1 commencing September 1, 2005 to the registered owners of the Bonds as of the close of business on the fifteenth day of the month preceding the relevant Interest Payment Date (the "Record Date"). Certain Bonds are subject to optional and mandatory redemption as described under the heading "Redemption of the Bonds" herein.

**THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY PAYABLE FROM THE RECEIPTS AND REVENUES PLEDGED THERETO. NEITHER THE CITY OF PITTSBURGH NOR THE COMMONWEALTH OF PENNSYLVANIA NOR ANY POLITICAL SUBDIVISION THEREOF IS OBLIGATED TO PAY THE PRINCIPAL, REDEMPTION PRICE OF, OR INTEREST ON, THE BONDS, AND NEITHER THE FULL FAITH, CREDIT NOR TAXING POWER OF THE CITY OF PITTSBURGH OR THE COMMONWEALTH OF PENNSYLVANIA OR ANY OTHER POLITICAL SUBDIVISION THEREOF IS PLEDGED TO SUCH PAYMENT. THE AUTHORITY HAS NO TAXING POWER.**

*The Bonds are offered when, as and if issued by the Authority and received by the Underwriters, subject to the receipt of the approving legal opinion of Eckert Seamans Cherin & Mellott, LLC, Bond Counsel. Certain legal matters will be passed upon for the Authority by Thorp, Reed & Armstrong, LLP, for the Underwriters by Buchanan Ingersoll PC and by Special Disclosure Counsel, Kirkpatrick & Lockhart Nicholson Graham, LLP. The Authority expects that delivery of the Bonds in definitive form will be made in New York, New York, on or about June 8, 2005.*

**UBS Financial Services Inc.**

**Merrill Lynch & Co.**

**Mesirow Financial, Inc.**

## MATURITY SCHEDULE

### **The Pittsburgh Water and Sewer Authority Water and Sewer System First Lien Revenue Bonds Series of 2005**

<b><u>Maturity September 1</u></b>	<b><u>Principal</u></b>	<b><u>Coupon</u></b>	<b><u>Yield</u></b>	<b><u>Price</u></b>
2006	\$ 875,000	3.000%	2.82%	100.213
2007	970,000	3.000%	2.88%	100.254
2008	995,000	3.250%	2.95%	100.915
2009	1,030,000	3.250%	3.03%	100.864
2010	1,065,000	3.250%	3.13%	100.571
2011	1,095,000	3.200%	3.30%	99.437
2012	780,000	3.300%	3.40%	99.360
2012	350,000	3.375%	3.40%	99.837
2013	1,170,000	3.400%	3.55%	98.933
2014	1,210,000	3.500%	3.65%	98.829
2015	865,000	3.625%	3.75%	98.941
2015	385,000	3.700%	3.75%	99.574
2020	1,580,000	4.000%	4.21%	97.651
2021	1,645,000	4.125%	4.25%	98.539
2024	1,885,000	5.000%	4.24%	106.249
2025	85,000	4.250%	4.26%	99.859
2025	1,895,000	5.000%	4.26%	106.078

\$ 2,665,000 5.000% Term Bonds due September 1, 2017 priced at 108.848 to yield 3.94%

\$ 6,485,000 5.000% Term Bonds due September 1, 2019 priced at 107.886 to yield 4.05%

\$ 3,505,000 5.000% Term Bonds due September 1, 2023 priced at 106.505 to yield 4.21%

\$ 8,960,000 5.000% Term Bonds due September 1, 2029 priced at 105.823 to yield 4.29%

\$10,890,000 5.000% Term Bonds due September 1, 2033 priced at 105.399 to yield 4.34%

**THE PITTSBURGH WATER AND SEWER AUTHORITY**

Joseph Preston, Jr., Chairman  
Richard Fees, Treasurer  
Len Bodack, Jr., Secretary  
Robert Provolt, Sr., Assistant Secretary/Assistant Treasurer  
Ann J. Davis, Member

Gregory F. Tutsock, Executive Director

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Pittsburgh, Pennsylvania

**AUTHORITY CONSULTING ENGINEER**

ATS - Chester Engineers  
Pittsburgh, Pennsylvania

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**UNDERWRITERS' COUNSEL**

Buchanan Ingersoll PC  
Pittsburgh, Pennsylvania

**SPECIAL DISCLOSURE COUNSEL**

Kirkpatrick & Lockhart Nicholson Graham, LLP  
Pittsburgh, Pennsylvania

**TRUSTEE AND PAYING AGENT**

J.P. Morgan Trust Company, National Association  
Pittsburgh, Pennsylvania

No dealer, broker, salesperson or other person has been authorized by the Authority to give any information or to make any representation in connection with the Bonds or the matters described herein, other than those contained in this Official Statement, and, if given or made, such other information or representation must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

All quotations from and summaries and explanations of provisions of laws herein do not purport to be complete and reference is made to said laws for full and complete statements of their provisions.

This Official Statement is not to be construed as a contract or agreement between the Authority and the purchasers or holders of any of the Bonds. Any statements made in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended merely as opinion and not as representations of fact. The information contained herein is subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority since the date hereof.

The order and placement of materials in this Official Statement, including the Appendices, are not to be deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety.

The Authority has deemed this Official Statement to be final for the purposes of Rule 15c2-12(b)(3) of the Securities and Exchange Commission.

Other than with respect to information concerning MBIA Insurance Corporation ("MBIA") contained under the caption "Bond Insurance" and Appendix G "Form of Municipal Bond Insurance Policy" herein, none of the information in this Official Statement has been supplied or verified by MBIA and MBIA makes no representation or warranty, express or implied, as to (i) the accuracy or completeness of such information; (ii) the validity of the Bonds; or (iii) the tax exempt status of the interest on the Bonds.

The Underwriters have reviewed the information in this Official Statement in accordance with, and as a part of, their responsibilities to investors under federal securities law, as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

THE BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, NOR HAS THE INDENTURE BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. THE REGISTRATION OR QUALIFICATION OF THE BONDS IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE SECURITIES LAWS OF THE STATES, IF ANY, IN WHICH THE BONDS HAVE BEEN REGISTERED OR QUALIFIED AND THE EXEMPTION FROM REGISTRATION OR QUALIFICATION IN CERTAIN OTHER STATES CANNOT BE REGARDED AS A RECOMMENDATION THEREOF. NEITHER THESE STATES NOR ANY OF THEIR AGENCIES HAVE PASSED UPON THE MERITS OF THE BONDS OR THE ACCURACY OR COMPLETENESS OF THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

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## SUMMARY INFORMATION

THIS SUMMARY STATEMENT IS SUBJECT IN ALL RESPECTS TO THE MORE COMPLETE INFORMATION CONTAINED IN THIS OFFICIAL STATEMENT, AND OFFERING OF THE BONDS TO THE POTENTIAL PURCHASERS IS MADE ONLY BY MEANS OF THIS OFFICIAL STATEMENT. NO PERSON IS AUTHORIZED TO DETACH THIS SUMMARY FROM THE OFFICIAL STATEMENT OR OTHERWISE TO USE THE SAME WITHOUT THE ENTIRE OFFICIAL STATEMENT.

Issuer ..... The Pittsburgh Water and Sewer Authority (the “Authority” or “PWSA”)

Series of 2005 Bonds..... The Pittsburgh Water and Sewer Authority, \$50,385,000 Water and Sewer System First Lien Revenue Bonds are issued pursuant to a resolution adopted by the Authority dated February 11, 2005, as amended April 8, 2005.

Dated Date of Bonds ..... Date of Delivery

Denomination..... \$5,000 or integral multiples thereof.

Maturity..... September 1 of the years specified on the inside front cover hereof.

Interest..... Payable on March 1 and September 1 of each year commencing September 1, 2005.

Security ..... The Bonds are secured (along with all other bonds issued pursuant to the Indenture) by a first lien pledge of the Receipts and Revenues of the Authority after payment of the Current Expenses, together with funds held by the Trustee under the Indenture as provided therein. The timely payment of principal of and interest on the Bonds is insured under a bond insurance policy issued by MBIA Insurance Corporation (“MBIA” or the “Bond Insurer”). (See “SECURITY FOR THE BONDS” and “MUNICIPAL BOND INSURANCE” herein.)

Use of Proceeds..... The proceeds of the Bonds will be used (a) to pay for capital improvements to the Authority's Water and Sewer System; (b) to fund certain capitalized interest; and (c) to pay all costs of issuance with respect to the Bonds.

Redemption ..... The Bonds are subject to optional redemption, mandatory sinking fund redemption and extraordinary optional redemption prior to maturity. (See “REDEMPTION OF THE BONDS” herein.)

Rate Covenant ..... The Authority must employ rates and charges as set forth in the Indenture, which together with other receipts and revenues, including any unrestricted cash and investments, are sufficient to provide annually, (a) amounts sufficient to pay, all current expenses of the Authority, and (b) an amount equal to 120% of the debt service requirements with respect to all First Lien Bonds and other long term debt of the Authority during the then current fiscal year, OR, the Authority must employ rates and charges as set forth in the Indenture, which together with other receipts and revenues (but not including unrestricted investments), are sufficient to provide annually (a) amounts sufficient to pay all current expenses of the Authority, and (b) an amount equal to 100% of the debt service requirements with respect to the First Lien Bonds and other long term debt of the Authority during the then current fiscal year.

Bond Ratings..... The following ratings are based solely upon the creditworthiness of the Bond Insurer. There is no underlying rating associated with the creditworthiness of the Authority.

Moody's Investors Service, Inc.: “Aaa”  
Standard & Poor's Ratings Group: “AAA”

Trustee & Paying Agent..... J.P. Morgan Trust Company, National Association

**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**\$50,385,000**  
**Water and Sewer System First Lien Revenue Bonds**  
**Series of 2005**

**INTRODUCTION**

The purpose of this Official Statement, which includes this introductory statement, the cover page and the Appendices hereto, is to set forth certain information pertaining to The Pittsburgh Water and Sewer Authority (the “Authority” or “PWSA”), a body corporate and politic duly created and existing under the Pennsylvania Municipality Authorities Act, 53 Pa. C.S.A. §5601 et seq. (the “Act”), and the issuance by the Authority of \$50,385,000 aggregate principal amount, Water and Sewer System First Lien Revenue Bonds, Series of 2005 (the “Bonds”). The Bonds are being issued pursuant to a Trust Indenture dated as of October 15, 1993 as amended and supplemented by a First Supplemental Indenture dated as of July 15, 1995, a Second Supplemental Indenture dated as of March 1, 1998, a Third Supplemental Indenture dated as of March 1, 2002, a Fourth Supplemental Indenture dated as of September 15, 2003 and a Fifth Supplemental Indenture dated as of June 1, 2005 (collectively, the “Indenture” or “First Lien Indenture”) by and between the Authority and J.P. Morgan Trust Company, National Association, successor to Chase Manhattan Trust Company, National Association, successor to PNC Bank, National Association, as Trustee (the “Trustee”).

The Authority was established in February 1984 by the City of Pittsburgh (the “City”) for the purpose of assuming responsibility for the operation of the City’s water supply and distribution and wastewater collection systems (the “Water and Sewer System”). Pursuant to a lease and management agreement dated March 29, 1984 between the Authority and the City (the “Lease and Management Agreement”), the Water and Sewer System was leased to the Authority. In 1995, the Lease and Management Agreement was terminated and the Authority is acquiring the portion of the Water and Sewer System owned by the City pursuant to a Capital Lease Agreement dated as of July 15, 1995 between the Authority and the City (the “Capital Lease Agreement”). (See “CAPITAL LEASE AGREEMENT WITH THE CITY OF PITTSBURGH” in Appendix A – Description of the Authority.)

The Water and Sewer System provides water to approximately 83,000 customers and wastewater collection and transmission service to approximately 113,000 customers. The Water and Sewer System does not include wastewater treatment facilities; such facilities are the responsibility of Allegheny County Sanitary Authority (“ALCOSAN”), a separate and distinct legal entity. Rates and charges established by the Authority are not subject to the approval of any department, board or agency of the Commonwealth of Pennsylvania or the City.

**THE AUTHORITY**

The Authority is a body corporate and politic organized and existing under the Act pursuant to Resolution No. 36 of the Council of the City of Pittsburgh, duly enacted on February 6, 1984, approved by the Mayor on February 8, 1984, and effective February 14, 1984. The Secretary of the Commonwealth of Pennsylvania approved the Authority’s Articles of Incorporation and issued a Certificate of Incorporation on February 17, 1984. Articles of Amendment were approved and a Certificate of Amendment was issued by the Pennsylvania Department of State on December 11, 1989 to include, among authorized projects, low head dams and facilities for generating surplus electric power.

Under its Articles of Incorporation, the Authority is specifically authorized to acquire, hold, construct, finance, improve, maintain, operate, own and lease, either as lessor or lessee, projects of the following kinds and character: sewers, sewer systems or parts thereof, waterworks, water supply works, and water distribution systems, low head dams and facilities for generating surplus power.

See Appendix A for a description of the Authority.

## **DEBT OF THE AUTHORITY**

In addition to the Bonds, the Authority will also have outstanding under the Indenture, 2003 Bonds in the principal amount of \$157,535,000, 2002 Bonds in the principal amount of \$105,590,000, 1998 Series A Bonds in the principal amount of \$92,925,000, 1998 Series B Capital Appreciation Bonds with a compound accreted value (as of March 1, 2005) of \$52,494,224 and 1993 Series A Bonds in the principal amount of \$49,105,000 (collectively with any additional bonds which are hereafter issued pursuant to the First Lien Indenture, the "First Lien Bonds"). The Authority also has outstanding under the 1995 Subordinate Trust Indenture 1998 Series C Bonds in the principal amount of \$98,850,000 (the "Subordinate Bonds") and six loans from the Pennsylvania Infrastructure Investment Authority ("PENNVEST") in the outstanding principal amount of approximately \$15,300,000.

## **THE BONDS**

### ***Description of the Bonds***

The Bonds will be issued as fully registered bonds in book-entry form. The Bonds will be issued in denominations of \$5,000 principal amount, or any integral multiple thereof, and will bear interest at the rates and will mature on the dates and in the amounts set forth on the inside cover of this Official Statement. Principal and interest shall be paid in such coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts. Interest on the Bonds will be computed on the basis of a 360-day year of twelve 30-day months.

Interest shall be payable on the Bonds on March 1 and September 1 of each year commencing September 1, 2005 (each an "Interest Payment Date"). Each Bond will be initially dated the date of issuance, and thereafter will be dated as of its date of authentication.

The Bonds are payable as to principal at the designated office of the Trustee or any successor trustee or paying agent. Payment of interest on the Bonds shall be made to the Bondholders of record on the registration books of the Trustee as of the close of business on the fifteenth day of the month (whether or not such day is a business day) next preceding the Interest Payment Date (the "Record Date") by check mailed to such owner at the address shown on the registration books, by wire transfer under certain circumstances, as described below, or in any other manner as may be mutually acceptable to the owner and the Trustee. Defaulted interest with respect to any Bond shall cease to be payable to the owner thereof on the relevant Record Date and shall be payable instead to the registered Bondholder as of the close of business on a Special Record Date for the payment of such defaulted interest established by the Trustee in accordance with the Indenture.

Payment of interest on any Bond shall be made to any owner of \$1,000,000 or more in aggregate principal amount of such Bonds by wire transfer to such owner on any Interest Payment Date upon written notice from such owner received by the Trustee not later than the Business Day next preceding the Record Date for the applicable Interest Payment Date, such notice to contain the wire transfer address within the continental United States to which such owner wishes to have such wire directed.

The Bonds are subject to optional and mandatory redemption as described herein under the captions "Optional Redemption", "Mandatory Sinking Fund Redemption" and "Extraordinary Optional Redemption."

### ***Book-Entry-Only System***

The Bonds will be available initially only in book-entry form. Purchasers of the Bonds will not receive certificates representing their interest in the Bonds. The following information concerning DTC and DTC's book-entry only system has been obtained from DTC. The Authority, the Underwriter, and the Trustee make no representation as to the accuracy of such information.



The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the Bonds. The Bonds will be issued as fully registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully registered certificate for each maturity will be issued for the Bonds, in the aggregate principal amount of such maturity, and will be deposited with DTC.

*DTC and its Participants.* DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 2.2 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC, in turn, is owned by a number of Direct Participants of DTC and Members of the National Securities Clearing Corporation, Fixed Income Clearing Corporation and Emerging Markets Clearing Corporation (NSCC, FICC, and EMCC, also subsidiaries of DTCC), as well as by the New York Stock Exchange, Inc., the American Stock Exchange LLC, and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has Standard & Poor's highest rating: AAA. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission.

More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com) and [www.dtc.org](http://www.dtc.org).

*Purchases of Ownership Interest.* Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Securities are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

*Transfers of Bonds.* To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

*Notices.* Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

*Payments of Principal, Premium, if Any, and Interest.* Redemption proceeds, principal, and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Authority and the Trustee. Under such circumstances, in the event that a successor depository is not obtained, 2005 Bond certificates are required to be printed and delivered.

The Authority may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, 2005 Bond certificates will be printed and delivered to DTC. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Authority believes to be reliable, but the Authority takes no responsibility for the accuracy thereof.

None of the Authority, the Underwriter or the Trustee will have any responsibility or obligation, legal or otherwise, to any party other than to the registered owners of any Bond on the registration books of the Trustee.

*Discontinuance of Book-Entry-Only System.* In the event (i) DTC determines not to continue to act as securities depository for the Bonds or (ii) the Authority, with the consent of the Trustee, determines in accordance with the terms of the Indenture that (a) DTC is incapable of discharging its duties, or (b) it is in the best interests of the holders of the Bonds not to continue the Book-Entry-Only System or that interests of the beneficial owners of the Bonds might be adversely affected if the Book-Entry-Only System is continued, then the Authority will discontinue the Book-Entry-Only System with DTC. Upon the occurrence of the event described in (i) or (ii)(a) above, the Authority will attempt to locate another qualified securities depository. If the Authority fails to identify another qualified securities depository to replace DTC or makes the determination noted in (ii)(b) above, the Trustee will authenticate and deliver the Bonds in accordance with the Indenture.

#### ***No Assurance Regarding DTC Practices***

The foregoing information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Authority believes to be reliable, but the Authority, the Underwriter and the Trustee do not take any responsibility for the accuracy thereof.

So long as Cede & Co. is the registered owner of the Bonds as nominee of DTC, references herein to the holders or registered owners of the Bonds will mean Cede & Co. and will not mean the beneficial owners of the Bonds.

None of the Authority, the Trustee, or the Underwriter will have any responsibility or obligation to the Participants, DTC or the persons for whom they act with respect to (i) the accuracy of any records maintained by DTC or by any Direct or Indirect Participant of DTC, (ii) payments or the providing of notice to Direct Participants, the Indirect Participants or the beneficial owners, (iii) the selection by DTC or by any Direct or Indirect Participant of any beneficial owner to receive payment in the event of a partial redemption of the Bonds or (iv) any other action taken by DTC or its partnership nominee as owner of the Bonds.

## **REDEMPTION OF THE BONDS**

### ***Optional Redemption***

The Bonds which mature after September 1, 2015 are subject to redemption, at the option of the Authority, in whole or in part, in the order of maturity selected by the Authority and by lot within a maturity, at any time on or after September 1, 2015. Any such redemption will be made at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the date fixed for redemption.

### ***Mandatory Sinking Fund Redemption***

The Bonds which mature on September 1 of each of 2017, 2019, 2023, 2029 and 2033 are subject to mandatory sinking fund redemption, in part, in order of maturity and by lot within a maturity, on September 1 in the years and the principal amounts listed below, at a redemption price equal to 100% of the principal amount to be redeemed, plus accrued interest to the date fixed for redemption:

#### **Bonds Maturing September 1, 2017**

<b>Year</b>	<b>Principal Amount</b>
2016	\$1,300,000
2017*	\$1,365,000

#### **Bonds Maturing September 1, 2019**

<b>Year</b>	<b>Principal Amount</b>
2018	\$1,860,000
2019*	\$4,625,000

#### **Bonds Maturing September 1, 2023**

<b>Year</b>	<b>Principal Amount</b>
2022	\$1,710,000
2023*	\$1,795,000

#### **Bonds Maturing September 1, 2029**

<b>Year</b>	<b>Principal Amount</b>
2026	\$2,080,000
2027	\$2,185,000
2028	\$2,290,000
2029*	\$2,405,000

#### **Bonds Maturing September 1, 2033**

<b>Year</b>	<b>Principal Amount</b>
2030	\$2,525,000
2031	\$2,655,000
2032	\$2,785,000
2033*	\$2,925,000

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\* Maturity

### ***Extraordinary Optional Redemption***

The Bonds are subject to extraordinary redemption prior to maturity at the option of the Authority in whole or in part at any time, in the event of condemnation, damage or destruction of the Water and Sewer System, from moneys deposited with or held by the Trustee for such purpose, upon payment of 100% of the principal amount thereof being redeemed, together with interest accrued to the date fixed for redemption.

The redemption of the Bonds shall be made in the manner and upon the terms and conditions set forth in the Indenture.

## **BOND INSURANCE**

### ***Bond Insurance Policy***

Concurrently with the issuance of the Bonds, MBIA will issue its Municipal Bond Insurance Policy for the Bonds (the "MBIA Policy"). The MBIA Policy guarantees the scheduled payment of principal of and interest on the Bonds when due as set forth in the form of the MBIA Policy included as an exhibit to this Official Statement.

The following information has been furnished by MBIA for use in this Official Statement. Reference is made to Appendix G for a specimen of MBIA's policy.

The MBIA Policy unconditionally and irrevocably guarantees the full and complete payment required to be made by or on behalf of the Authority to the Trustee or any paying agent or their respective successors of an amount equal to (i) the principal of (either at the stated maturity or by an advancement of maturity pursuant to a mandatory sinking fund payment) and interest on, the Bonds as such payments shall become due but shall not be so paid (except that in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments guaranteed by the MBIA Policy shall be made in such amounts and at such times as such payments of principal would have been due had there not been any such acceleration, unless MBIA elects in its sole discretion, to pay in whole or in part any principal due by reason of such acceleration); and (ii) the reimbursement of any such payment which is subsequently recovered from any holder of the Bonds pursuant to a final judgment by a court of competent jurisdiction that such payment constitutes an avoidable preference to such holder within the meaning of any applicable bankruptcy law (a "Preference").

MBIA's policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Bonds. MBIA's policy does not, under any circumstance, insure against loss relating to: (i) optional or mandatory redemptions (other than mandatory sinking fund redemptions); (ii) any payments to be made on an accelerated basis; (iii) payments of the purchase price of Bonds upon tender by an owner thereof; or (iv) any Preference relating to (i) through (iii) above. MBIA's policy also does not insure against nonpayment of principal of or interest on the Bonds resulting from the insolvency, negligence or any other act or omission of the Trustee or any paying agent for the Bonds.

Upon receipt of telephonic or telegraphic notice, such notice subsequently confirmed in writing by registered or certified mail, or upon receipt of written notice by registered or certified mail, by MBIA from the Trustee or any owner of a Bond, the payment of an insured amount for which is then due, that such required payment has not been made, MBIA on the due date of such payment or within one (1) business day after receipt of notice of such nonpayment, whichever is later, will make a deposit of funds in an account with U.S. Bank Trust National Association, in New York, New York, or its successor, sufficient for the payment of any such insured amounts which are then due. Upon presentment and surrender of such Bonds or presentment of such other proof of ownership of the Bonds, together with any appropriate instruments of assignment to evidence the assignment of the insured amounts due on the Bonds as are paid by MBIA, and appropriate instruments to effect the appointment of MBIA as agent for such

owners of the Bonds in any legal proceeding related to payment of insured amounts on the Bonds, such instruments being in a form satisfactory to U.S. Bank Trust National Association, U.S. Bank Trust National Association shall disburse to such owners or the Trustee or any paying agent payment of the insured amounts due on such Bonds, less any amount held by the Trustee or any paying agent for the payment of such insured amounts and legally available therefore.

## **MBIA**

MBIA is the principal operating subsidiary of MBIA, Inc., a New York Stock Exchange listed company (the "Company"). The Company is not obligated to pay the debts of or claims against MBIA. MBIA is domiciled in the State of New York and licensed to do business in and subject to regulation under the laws of all 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States and the Territory of Guam. MBIA has three branches, one in the Republic of France, one in the Republic of Singapore and one in the Kingdom of Spain. New York has laws prescribing minimum capital requirements, limiting classes and concentrations of investments and requiring the approval of policy rates and forms. State laws also regulate the amount of both the aggregate and individual risks that may be insured, the payment of dividends by MBIA, changes in control and transactions among affiliates. Additionally, MBIA is required to maintain contingency reserves on its liabilities in certain amounts and for certain periods of time.

MBIA does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding the policy and MBIA set forth under the heading "BOND INSURANCE". Additionally, MBIA makes no representation regarding the Bonds or the advisability of investing in the Bonds.

The Financial Guarantee Insurance Policies are not covered by the Property/Casualty Insurance Security Fund specified in Article 76 of the New York Insurance Law.

## **MBIA Information**

The following document filed by the Company with the Securities and Exchange Commission (the "SEC") is incorporated herein by reference:

- (1) The Company's Annual Report on Form 10-K for the year ended December 31, 2004.

Any documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act of 1934, as amended, after the date of the Company's most recent Quarterly Report on form 10-Q, and prior to the termination of the offering of the Bonds offered hereby shall be deemed to be incorporated by reference in this Official Statement and to be a part hereof. Any statement contained in a document incorporated or deemed to be incorporated by reference herein, or contained in this Official Statement shall be deemed to be modified or superseded for purposes of this Official Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modified or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Official Statement.

The Company files annual, quarterly and special reports, information statements and other information with the SEC under File No. 1-9583. Copies of the SEC filings (including (1) the Company's Annual Report on Form 10-K for the year ended December 31, 2004, and (2) the Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2004, June 30, 2004 and September 30, 2004) are available (i) over the Internet at the SEC's website at <http://www.sec.gov>; (ii) at the SEC's public reference room in Washington D.C.; (iii) over the Internet at the Company's website at <http://www.mbia.com>; and (iv) at no cost, upon request to MBIA Insurance Corporation, 113 King Street, Armonk, New York 10504. The telephone number of MBIA is (914) 273-4545.

As of December 31, 2003, MBIA had admitted assets of \$9.9 billion (audited), total liabilities of \$6.2 billion (audited), and total capital and surplus of \$3.7 billion (audited) determined in accordance with statutory accounting practices prescribed or permitted by insurance regulatory authorities. As of December 31, 2004, MBIA had admitted assets of \$10.3 billion (unaudited), total liabilities of \$6.9 billion (unaudited), and total capital and surplus of \$3.3 billion (unaudited) determined in accordance with statutory accounting practices prescribed or permitted by insurance regulatory authorities.

### **Financial Strength Ratings of MBIA**

Moody's Investors Service, Inc. rates the financial strength of MBIA "Aaa."

Standard & Poor's, a division of The McGraw-Hill Companies, Inc. rates the financial strength of MBIA "AAA."

Fitch Ratings rates the financial strength of MBIA "AAA."

Each rating of MBIA should be evaluated independently. The ratings reflect the respective rating agency's current assessment of the creditworthiness of MBIA and its ability to pay claims on its policies of insurance. Any further explanation as to the significance of the above ratings may be obtained only from the applicable rating agency.

The above ratings are not recommendations to buy, sell or hold the Bonds, and such ratings may be subject to revision or withdrawal at any time by the rating agencies. Any downward revision or withdrawal of any of the above ratings may have an adverse effect on the market price of the Bonds. MBIA does not guaranty the market price of the Bonds, nor does it guaranty that the ratings on the Bonds will not be revised or withdrawn.

## **ESTIMATED SOURCES AND USES OF FUNDS**

### SOURCES OF FUNDS

Principal	\$50,385,000.00
Net Original Issue Premium	<u>2,235,834.05</u>
TOTAL	<u>\$52,620,834.05</u>

### USES OF FUNDS

Capital Project	\$50,000,408.16
Capitalized Interest	1,683,943.34
Costs of Issuance*	<u>936,482.55</u>
TOTAL	<u>\$52,620,834.05</u>

\*Includes the bond insurance premium, the purchase of a Debt Service Reserve Fund Surety Bond, underwriters' discount, fees of the financial advisor, bond counsel, issuer's counsel, underwriters' counsel, special disclosure counsel, disclosure agent fees, rating agencies, trustee, printing costs and other miscellaneous fees and expenses.

## **USE OF PROCEEDS; THE CAPITAL IMPROVEMENT PROGRAM**

The primary objectives of the Authority's capital improvement program (the "Capital Improvement Program") are to assure uninterrupted service to the Authority's customers and to enhance the system's capabilities. The Capital Improvement Program was designed to maintain a satisfactory level of service to the Water and Sewer System users, to improve operating efficiency, to address future requirements and to assure a safe supply of water to its users. The Program was initially implemented in 1984 and has resulted in major improvements, additions and rehabilitation to all components of the Water and Sewer System.

In order to assure a continued supply of safe drinking water and proper sewer service to the Authority's current and future users and to address future demands on both the Water and Sewer System, additional funding is required. The following is a summary of the portion of the Capital Improvement Program to be funded with proceeds of the sale of the Bonds.

**Description**

- Water Distribution System
- Pumping and Storage Facilities
- Water Treatment Plant
- Miscellaneous Tools & Equipment
- Miscellaneous Projects
- Sewer System
- City, URA\* and SEA\*\* Projects
- Engineering

\* Urban Redevelopment Authority of Pittsburgh

\*\* Sports and Exhibition Authority of Pittsburgh and Allegheny County

For a more detailed description of the Capital Improvement Program, see Appendix E, "Consulting Engineer's Report", Appendix A.

## **SECURITY FOR THE BONDS**

### ***Limited Obligations***

The Bonds are limited obligations of the Authority. The Bonds do not pledge the general credit or taxing power of the City of Pittsburgh, the Commonwealth of Pennsylvania (the "Commonwealth") or any political subdivision thereof; nor shall the Bonds be deemed an obligation of the City, the Commonwealth or any political subdivision thereof; nor shall the City, the Commonwealth or any political subdivision thereof (other than the Authority) be liable for payment of the principal of, premium, if any, or interest on the Bonds. The Authority has no taxing power.

### ***Pledge of Receipts and Revenues***

The Bonds, together with the other First Lien Bonds, are secured, on a parity, by a first lien pledge of the Receipts and Revenues of the Water and Sewer System after payment of Current Expenses, each as defined in the First Lien Indenture, together with cash and investments from time to time held in certain funds pursuant to the First Lien Indenture. (See Appendix B – "*Summary of Indenture*".)

### ***Debt Service Reserve Fund***

The First Lien Indenture requires that a Debt Service Reserve Fund be funded in an amount equal to the maximum annual debt service requirements on the First Lien Bonds. Upon issuance of the Bonds, the Authority will purchase a surety bond to fund the Debt Service Reserve Fund in an amount sufficient, together with amounts on deposit therein, to equal the maximum annual debt service requirements on the First Lien Bonds. Currently, the Debt Service Reserve Fund for such First Lien Bonds is fully funded as required under the First Lien Indenture and is comprised of cash and Municipal Bond Debt Service Reserve Fund Policies.

### ***Municipal Bond Insurance***

Payments of principal and interest on the Bonds when due are insured by a municipal bond insurance policy to be issued by MBIA simultaneously with the issuance of the Bonds. See "BOND INSURANCE" herein.

### ***Additional Debt***

The Authority may issue additional bonds on a parity with the Bonds for the purposes of financing the cost of acquiring, constructing or completing capital additions or refunding outstanding indebtedness, upon satisfaction of the conditions set forth in the First Lien Indenture.

### ***Covenants of the Authority***

Under the Indenture, the Authority covenants, among other things: (1) to insure the property of the Water and Sewer System in accordance with customary practice, (2) to employ a consulting engineer to make recommendations annually concerning, among other things, the proper maintenance, repair and operation of the Water and Sewer System and (3) to maintain the Water and Sewer System in good repair, working order and condition. (See “*Summary of Indenture*” – Appendix B herein.) (Also, see “RATE COVENANT” herein.)

## **FLOW OF FUNDS**

The Authority has heretofore established a special fund (the “Revenue Fund”) into which it deposits its Receipts and Revenues with Authorized Depositories. The Authority will withdraw from the Revenue Fund for deposit to the credit of the following funds in the order, on the dates and for the following purposes:

1.     *Operation and Maintenance Fund*  
On the first day of each month moneys are to be transferred to the Operation and Maintenance Fund in an amount equal to the amount budgeted by the Authority for that month for the payment of the Current Expenses as the same become due.
2.     *Debt Service Fund*  
On or before each Interest Payment Date, moneys in the amount of the interest to come due on the First Lien Bonds on such Interest Payment Date and on or before the first day of each month moneys in the amount of 1/12 of the principal to come due on the First Lien Bonds on the next principal payment date are to be transferred to the Debt Service Fund of the First Lien Indenture.
3.     *Debt Service Reserve Fund/Operating Reserve Account*  
On the first day of each month in which there is a deficiency in the Debt Service Reserve Fund or the Operating Reserve Account of the Indenture or if there has been a draw on the surety bond held in the Debt Service Reserve Fund of the Indenture, amounts sufficient to repay any deficiency or repay any such draw, together with expenses due, in not more than 12 equal monthly payments shall be transferred, as applicable, to the Debt Service Reserve Fund or the Operating Reserve Account held pursuant to the Indenture or paid to the surety provider.
4.     *Renewal and Replacement Fund*  
On the dates and in the amounts set forth in the annual consulting engineer’s report moneys are to be transferred to the Renewal and Replacement Fund held pursuant to the Indenture.
5.     *Debt Service for Subordinated Debt*  
After making the foregoing transfers, on the first day of each month moneys shall be transferred:  
  - (a) all payments due on Subordinate Bonds, and
  - (b) all payments due on any other subordinated debt.
6.     *Depreciation Reserve Account – First Lien Indenture*  
On December 1 of each year moneys shall be transferred to the Depreciation Reserve Account held pursuant to the First Lien Indenture.



## **RATE COVENANT**

Under the Indenture, the Authority has covenanted with the owners of the Bonds to adopt rates complying with either (1) or (2) of the following in each fiscal year:

(1) The Authority will maintain, charge and collect, so long as any Bonds are outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates) together with other Receipts and Revenues, including any unrestricted cash and investments accumulated in the Revenue Fund at the beginning of each Fiscal Year, shall be at all times at least sufficient to provide annually:

- (a) Amounts sufficient to pay all of the Current Expenses of the Authority; and
- (b) An amount equal to 120% of the debt service requirements with respect to the Bonds and other Authority Long Term Indebtedness during the then current fiscal year of the Authority.

(2) The Authority will maintain, charge and collect, so long as any Bonds are outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates), together with other Receipts and Revenues, for the then current fiscal year (exclusive of interest income earned by the Authority on funds other than the Debt Service Reserve Fund; provided, however, that earnings on the construction/acquisition funds may also be included during any construction period, but only to the extent such earnings are expressly required to be either retained in the construction/acquisition funds and may be used to pay debt service on the Bonds or other Authority Long Term Indebtedness or are applied directly to payment of debt service on the Bonds or other Authority Long Term Indebtedness), shall be at all times at least sufficient to provide annually:

- (a) Funds to pay all of the Current Expenses of the Authority; and
- (b) An amount equal to 100% of the debt service requirements with respect to the Bonds and other Authority Long Term Indebtedness during the then current fiscal year of the Authority.

Calculation of compliance with the covenant shall be made on the following basis: (a) operating revenue, construction/acquisition fund income, earnings on the Debt Service Reserve Fund, expenses, required deposits to replenish any withdrawals from the Debt Service Reserve Fund and the Renewal and Replacement Fund which have not been capitalized shall be accounted for on the accrual basis; (b) costs of issuance of the Authority Bonds and other Authority Long Term Indebtedness may be treated as if such amounts are amortized over the life of the Authority Bonds and other Authority Long Term Indebtedness irrespective of any shorter period over which such costs are actually amortized; and (c) depreciation is specifically excluded from the calculation. In the event that any Policy Costs are due and owing at the time of the calculation of the rate covenant, Gross Revenues of the Authority shall be reduced by the amount of any Policy Costs then due and owing.

The Authority also covenants with the holders of the Bonds that if at any time the revenues collected shall not be sufficient to enable the Authority to comply with the provisions set forth above, it will promptly revise its water or sewer rates, rents and other charges so that the Authority will be in compliance and so that any deficiencies in transfers of funds required to be made pursuant to the First Lien Indenture will be remedied before the end of the next ensuing fiscal year.

## **FUTURE INDEBTEDNESS**

The Authority has established a five (5) year capital improvement program encompassing years 2005 to 2009 (the "Capital Improvement Program"). The primary objectives of the Authority's Capital Improvement Program are to assure uninterrupted service to the Authority's customers and to enhance the system's capabilities. The Capital Improvement Program was designed to maintain a satisfactory level of service to Water and Sewer System users, to improve operating efficiency, to address future requirements and to assure a safe supply of water to its users. The current program was initially implemented in 1984 and has resulted in major improvements, additions and rehabilitation to all components of the Water and Sewer System.

In addition to the Bonds, the Consulting Engineer has forecasted a First Lien Bond issue in the approximate amount of \$50,000,000 to complete the funding for the 2005 - 2009 Capital Improvement Program to be issued sometime in 2007 (the "Projected 2007 Bonds").

Additionally, as more fully discussed under "CERTAIN BONDHOLDERS' RISKS, *Certain Environmental Matters*" herein, the Authority is subject to a U.S. Environmental Protection Agency Combined Sewer Overflow Policy ("CSO Policy") regarding overflows from combined sewers during events that result in the discharge to receiving water of untreated sanitary sewage. Pursuant to the January 2004 Consent Order and Agreement (the "Order"), the Authority is developing a long-term plan (the "CSO Long-Term Control Plan") to comply with the CSO Policy and expects to submit its CSO Long-Term Control Plan to the Department of Environmental Protection (DEP) by January 2008. The cost of the studies and construction activities that will be required to reach target goals that are to be established through the CSO Policy is currently preliminarily estimated by the Authority at \$300,000,000, but will be more accurately determined when the CSO Long-Term Control Plan is finally approved. The amount is dependent, in part, on coordination with other regional providers and ALCOSAN. Funding of a portion of the amount needed to address the combined sewer overflow issue and achieve compliance with the Clean Water Act was provided with proceeds of the 2002 Bonds and additional funding will come from proceeds of the Bonds and the Projected 2007 Bonds. Such funding for the 2005 – 2007 period will include approximately \$2.7 million for manhole inspections and sewer televising, \$3.5 million to gunite sewers and conduct cured in place pipe linings, \$3 million to conduct point repairs and address deteriorated sewers, \$3.4 million for sewer separation projects and \$8 million to finalize the CSO Long-Term Control Plan. The final years of the current improvement program contemplate additional expenditures for sewer compliance issues and infrastructure improvements. It is anticipated that funding for these expenditures, as well as implementation of the CSO Long-Term Control Plan will be provided, in all or in part, through the issuance of additional debt.

## **LITIGATION**

In the opinion of Authority Counsel, there is no litigation pending or threatened seeking to enjoin the issuance, sale or delivery of the Bonds or affecting the security pledged therefor.

There are no pending claims or actions against the Authority arising from the operation and maintenance of the Water and Sewer System, that, if determinations or settlements were made adverse to the Authority, and upon consideration of available insurance coverage, would have, in the opinion of the Authority's Counsel, a material adverse effect on the Authority's financial position.

## **TAX MATTERS**

### ***Federal Tax Exemption***

Bond Counsel is expected to issue its opinion that under existing law, the interest on and accruals of original issue discount with respect to the Bonds (a) are excluded from gross income for federal income tax purposes and (b) are not items of tax preference within the meaning of Section 57 of the Internal Revenue Code of 1986, as amended (the "Code") for purposes of the alternative minimum tax imposed by Section 55 of the Code on individuals and corporations; however, it should be noted, with respect to corporations (as defined for federal income tax purposes), such interest and accruals are taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed by Section 55 of the Code on such corporations. Accruals of the original issue discount with respect to a Bond allocable to an owner of a Bond under a constant yield method of accrual (a) are not included in gross income for federal income tax purposes, and (b) are added to such owner's tax basis in the Bond for the purpose of determining gain or loss for federal income tax purposes upon sale, exchange, redemption and other disposition of the Bond. The opinions set forth in the preceding two sentences are subject to the condition that the Authority complies with all the requirements of the Code that must be satisfied subsequent to the issuance of the Bonds in order that interest on and accruals of original issue discount with respect to the Bonds be (or continue to be) excluded from gross income for federal income tax purposes. Failure to comply with such requirements could cause the interest on and accruals of original issue discount with respect to the Bonds to be included in gross income retroactively to the date of issuance of the Bonds. The Authority has covenanted to comply with all such requirements.

Ownership of the Bonds may give rise to collateral federal income tax consequences to taxpayers, including, without limitation, financial institutions, property and casualty insurance companies, S corporations with Subchapter C earnings and profits, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry the Bonds. Bond Counsel expresses no opinion as to any such collateral federal income tax consequences. Purchasers of Bonds should consult their own tax advisors as to such collateral federal income tax consequences.

### ***Pennsylvania Tax Exemption***

In the opinion of Bond Counsel, under existing law, the Bonds are exempt from personal property tax in Pennsylvania and the interest on the Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

## **ORIGINAL ISSUE DISCOUNT**

In the opinion of Bond Counsel, under existing law, the original issue discount in the selling price of Bonds of certain maturities, to the extent properly allocable to each owner of such Bond, is excluded from gross income for federal income tax purposes with respect to such owner. The original issue discount is the excess of the stated redemption price at maturity of such Bond over the initial offering price to the public, excluding underwriters and other intermediaries, at which price a substantial amount of the Bonds of such maturity were sold. Under Section 1288 of the Code, original issue discount on tax-exempt bonds accrues on a compound basis. The amount of original issue discount that accrues to an owner of a Bond during any accrual period generally equals (i) the issue price of such Bond plus the amount of original issue discount accrued in all prior accrual periods, multiplied by (ii) the yield to maturity of such Bond (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period), less (iii) any interest payable on such Bond during such accrual period. The amount of original issue discount so accrued in a particular accrual period will be considered to be received ratably on each day of the accrual period, will be excluded from gross income for federal income tax purposes, and will increase the owner's tax basis in such Bond. Any gain realized by an owner from a sale, exchange, payment or redemption of a Bond will be treated as gain from the sale or exchange of such Bond.

## **ORIGINAL ISSUE PREMIUM**

An amount equal to the excess of the purchase price of a Bond over its stated redemption price at maturity constitutes premium on such Bond. A purchaser of a Bond must amortize any premium over such Bond's term using constant yield principles, based on the purchaser's yield to maturity. As premium is amortized, the purchaser's basis in such Bond is reduced by a corresponding amount, resulting in an increase in the gain (or decrease in the loss) to be recognized for federal income tax purposes upon a sale or disposition of such Bond prior to its maturity. Even though the purchaser's basis is reduced, no federal income tax deduction is allowed. Purchasers of any Bonds at a premium, whether at the time of initial issuance or subsequent thereto, should consult with their own tax advisors with respect to the determination and treatment of premium for federal income tax purposes and with respect to state and local tax consequences of owning such Bonds.

## **CERTAIN BONDHOLDERS' RISKS**

Investment in the Bonds may involve certain risks and each investor should consider the risks involved to determine the suitability of investing in the Bonds. Each prospective investor should carefully examine this Official Statement and his or her own financial condition (including the diversification of his or her investment portfolio) in order to make a judgment as to whether the Bonds are an appropriate investment.

The Authority has identified and summarized below certain "bondholders' risks" that could adversely affect the finances of the Authority, the operation of the Water and Sewer System and/or the funds available for payment of the Bonds, which should be considered by prospective investors. The following discussion is not intended to be exhaustive, but includes certain major factors, which should be considered along with other factors set forth elsewhere in this Official Statement, including the Appendices hereto. See Appendix A – "DESCRIPTION OF THE AUTHORITY" – "*Government Regulation.*"

### ***Certain Environmental Matters***

The Authority is subject to a variety of federal, state and local environmental laws and regulations governing discharges to air and water, treatment of sanitary wastewaters and the storage and disposal of solid waste materials. (See Appendix A – "*Government Regulation.*") The Sewer System conveys wastewater generated within the City boundaries, and from certain other municipalities connected to the Sewer System to ALCOSAN interceptors located along the rivers of the City for conveyance to ALCOSAN's wastewater treatment facility for processing prior to discharge into the Ohio River. (See Appendix A – "*The Sewer System.*") The Sewer System is designed so that during wet weather, a portion of the collected storm water and diluted wastewater is discharged to natural watercourses by diversion chambers located throughout the Sewer System and at connections to the ALCOSAN interceptors. The Sewer System operates satisfactorily and has adequate capacity for the dry weather wastewater flows; during wet weather, however, the Sewer System is often taxed beyond its capacity, resulting in overflows, bypassing and flooding.

The U.S. Environmental Protection Agency ("USEPA") has adopted regulations governing discharges to surface bodies of water under the Federal Clean Water Act, coupled with a Combined Sewer Overflow Policy (the "CSO Policy") regarding overflows from combined sewers during wet weather events that result in the discharge to receiving water of untreated sanitary sewage. These combined sewer overflows ("CSOs") contain pollutants that are present in domestic and industrial wastewater, as well as those in the urban storm water runoff that enter the combined sewer system. Most of the Authority's sewers are combined sewers and there are well over 200 CSOs within the Authority's Sewer System and at connections to ALCOSAN's interceptors. The USEPA CSO Policy requires owners of any sewer system having CSOs to acquire NPDES discharge permits for each overflow site. On January 29, 2004, pursuant to a resolution adopted by its Board on December 19, 2003, the Authority entered into the Order regarding alleged wet weather sewer overflows within the City of Pittsburgh, Allegheny County, Pennsylvania. The other signatories to the Order are the City of Pittsburgh, the Pennsylvania Department of Environmental Protection ("DEP") and the Allegheny County Health Department ("ACHD").

The Order was developed as part of a two-year process of negotiation and consensus-building among the DEP, the ACHD, the Authority and eighty-two other municipalities and municipal authorities whose sewage is ultimately treated by ALCOSAN at its Woods Run Sewage Treatment Plant. In the negotiations and consensus-building, the participants developed proposed orders to be used by the municipalities served by ALCOSAN to address regional concerns regarding wet weather sewer overflows.

Generally, the Order requires the Authority and the City to assess the combined and separate sanitary sewers within the City in order to develop a plan to address alleged wet weather sewer overflows within the City. The assessment activities required under the Order include performing: (1) a physical survey and visual inspection; (2) sewer line cleaning and closed circuit television internal inspections; (3) sewer system mapping; (4) sewer system dye testing; (5) a system of hydraulic characterization; and (6) flow monitoring. The Order provides a very specific schedule for the completion of assessment activities. Most assessment activities for critical sewers and the separate sanitary portion of the sewer system are to be completed in 2010. Assessment activities for non-critical sewers are to be completed on a longer schedule with some tasks to be completed in 2012.

In addition to assessment activities, the Order requires the Authority and the City to implement the Nine Minimum Controls for the control of combined sewer overflows ("CSOs"), and to perform repairs and maintenance to the deficiencies in the sewer system revealed by the assessment activities. Such deficiency corrections include eliminating the conveyance of streams by the sewer system and repairing or replacing sewer lines that restrict flows causing unpermitted overflows. Generally, deficiency corrections in the critical sewers and the separate sanitary sewer system are to be completed in 2010. Deficiency corrections in the assessed, non-critical sewers are to be completed by 2012.

The Authority is currently developing a CSO Long-Term Control Plan to address the combined sewer overflow issue and achieve compliance with water quality standards and the Clean Water Act and expects to submit its Long Term Control Plan to DEP by January 2008.

The Order called for collection system investigations, repairs and further studies. The collection system investigation and repairs are reflected in the Capital Improvement Program. Included within this program for the 2005-2007 period are approximately \$2.7 million for manhole inspections and sewer televising, \$3.5 million to gunite sewers and conduct cured in place pipe linings, \$3 million to conduct point repairs and address deteriorated sewers, \$3.4 million for sewer separation projects and \$8 million to finalize the Long Term Control Plan.

Ultimately the Long Term Control Plan must be developed for the elimination of sanitary sewer overflows and the reduction of combined sewer overflows to acceptable levels. The cost of the studies and construction activities to reach target goals is currently preliminarily estimated by the Authority to cost at least \$300,000,000, but will be more accurately determined when the Long Term Control Plan is finally approved. The amount is dependent, in part, on coordination with other regional providers and ALCOSAN. The details of the plan and the time required for full implementation of the plan have not yet been determined. As of this date the regulatory agencies, the Authority, the other municipalities, and ALCOSAN have not reached concurrence with regard to the details of the plan and the schedule for implementation.

The DEP has issued to the Authority and the City a National Pollutant Discharge Elimination System ("NPDES") permit regarding the CSOs within the City. The Authority is permitted for a total of 194 CSOs in the sewage collection system. Of these, the Authority operates and maintains 40 of the CSOs. The remainder of CSOs are operated by the regional treatment provider, ALCOSAN.

### ***Water Supply***

Although the quantity of water available from the Authority's sole source of water, the Allegheny River, is believed to be adequate, it is possible that circumstances could change this condition. The total flow of the river could, for example be limited by drought conditions, and any constraints that may be imposed on withdrawals in drought conditions, such as pass-by flow conditions designed to leave sufficient water in the stream for navigation and fisheries.

### ***Geographic Concentration***

The number of customers using the Water and Sewer System may be adversely affected by regional and local economic conditions, competitive conditions, changes in population and general market conditions. There can be no assurance that the Water and Sewer System will be able to maintain the current number of existing users if there are changes in the resident and/or commercial population of the service area.

### ***Insurance and Legal Proceedings***

The Authority carries property and general liability insurance in amounts deemed adequate by the Board and consistent with industry practices. Since January 1, 2002, the Authority has been self-insured as to general liability claims. While there are no current claims in excess of liability limits, there can be no assurance that future claims will be covered by applicable insurance coverage. A claim against the Authority not covered by, or in excess of, the Authority's insurance could have a material adverse effect upon the financial affairs of the Authority.

### ***Governmental Regulation***

The federal and local government significantly regulates the industry. Regulations and conditions affecting the acquisition, development ownership and operation of the Water and Sewer System could increase the operating expenses of the Water and Sewer System or could otherwise have a material adverse effect on the financial condition of the Authority. (See Appendix A – “Government Regulation”.)

## **THE TRUSTEE**

The obligations and duties of the Trustee are described in the Indenture, and the Trustee has undertaken only those obligations and duties which are expressly set out in the Indenture. The Trustee has not independently passed upon the validity of the Bonds, the security therefor, the adequacy of the provisions for payment thereof or the tax-exempt status of the interest on the Bonds. The Trustee has relied upon the opinion of Bond Counsel for the validity and tax-exempt status of the interest on the Bonds. The Indenture expressly provides that the Trustee shall not be responsible for any loss or damage resulting from any action or inaction taken in good faith in reliance upon an opinion of counsel.

Under the terms of the Indenture, the Trustee is liable only for those damages caused by its gross negligence or willful misconduct. Under the Indenture, the Trustee is not required to take notice and is not deemed to have notice, of any default under the Indenture, except failure by the Authority to cause to be made any of the payments required to be made for payment of principal of the Bonds, when due at maturity or earlier redemption, or interest on the Bonds, or unless the Trustee has been specifically notified in writing of such default by the Authority or the owners of at least 25% in aggregate principal amount of the Outstanding Bonds affected by such default. All notices or other instruments required by the Indenture to be delivered to the Trustee must be delivered at the principal corporate trust office of the Trustee. In the absence of any such notice, the Trustee may conclusively assume no Event of Default (as defined in the Indenture) exists, except as expressly stated above and in the Indenture.

## **LEGAL OPINIONS**

Purchase of the Bonds by the Underwriter is subject to the receipt of the approving legal opinion of Eckert Seamans Cherin & Mellott, LLC, Pittsburgh, Pennsylvania, Bond Counsel. The unqualified approving opinion of Bond Counsel will be substantially in the form attached to this Official Statement as Appendix F. Certain legal matters for the Authority will be passed upon by its Counsel, Thorp, Reed & Armstrong, LLP, Pittsburgh, Pennsylvania, for the Underwriters by Buchanan Ingersoll PC, Pittsburgh, Pennsylvania and by Special Disclosure Counsel, Kirkpatrick & Lockhart Nicholson Graham, LLP, Pittsburgh, Pennsylvania.

## **INDEPENDENT AUDITORS**

The audited financial statements of the Authority, as of and for the years ended December 31, 2004 and 2003, included in Appendix C - "Authority Financial Statements" have been audited by Maher Duessel, independent certified public accountants, as indicated in their report with respect thereto, which report also appears in Appendix C.

## **RATINGS OF THE BONDS**

The Bonds will be assigned a rating of "Aaa" by Moody's Investors Service, Inc. ("Moody's") and "AAA" by Standard & Poor's Ratings Group, a Division of The McGraw-Hill Companies ("S&P"), both of which are based solely upon the creditworthiness of the Bond Insurer, with the understanding that upon delivery of the Bonds, the municipal bond insurance policy insuring payment when due of principal of and interest on the Bonds will be issued by the Bond Insurer.

Any explanation of the significance of such ratings may only be obtained from the rating agency furnishing the same. There is no assurance that such rating will be maintained for any given period of time or that it may not be revised downward or withdrawn entirely by the rating agency if, in its judgment, circumstances so warrant. Any downward change in or the withdrawal of such rating may have an adverse effect on the price at which the Bonds may be resold by the holder of such Bonds.

The Authority has not applied for an underlying rating based upon its own creditworthiness.

## **CONTINUING DISCLOSURE; DISCLOSURE DISSEMINATION**

Pursuant to Securities and Exchange Commission Rule 15c2-12 under the Securities Exchange Act of 1934, as amended (the "Rule"), the Authority has entered into a Continuing Disclosure Agreement (the "Disclosure Agreement") which includes an undertaking (the "Undertaking") for the benefit of the holders of the Bonds to provide certain financial information and operating data on an annual basis (the "Annual Report") and to provide notice of certain enumerated events if such events are determined to be material under the federal securities laws.

The Annual Report is to be filed by the Trustee not later than 200 days after the end of the Authority's fiscal year with each Nationally Recognized Municipal Securities Information Repository as defined in the Rule ("NRMSIR"). Notices of material events are to be filed with each NRMSIR or with the Municipal Securities Rulemaking Board ("MSRB") and any State Information Depository established by the Commonwealth under the Rule, if any ("SID"). The Authority has complied with its continuing disclosure obligations under the Rule since 1995.

*Annual Information.* The Annual Information concerning the Authority shall consist of (1) audited financial statements or the disclosure of the absence of such an audit, prepared in accordance with generally accepted accounting principles ("GAAP"), or accompanied by a quantified explanation of material deviations from GAAP or a full explanation of the accounting principles used, and a certificate regarding annual debt service coverage; (2) operating data regarding the Authority substantially of the type included in the tables appearing under the following headings and subheadings of this Official Statement or in Appendix A hereto entitled "Water and Sewer Rates," "Water Consumption by Customer Classification," and "Survey of 10 Largest Users"; and (3) a narrative discussion that analyzes the Authority's financial condition and results of operations, as well as facts likely to have a material impact on the Authority.

Notice of Material Events. The notices to be provided under the Rule, which the Authority will undertake to provide as described above, include written or notice of the occurrence of any of the following events, if material, with respect to the Bonds:

- (i) Principal and interest payment delinquencies;
- (ii) Non-payment related defaults;
- (iii) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) Substitution of credit or liquidity providers, or their failure to perform;
- (vi) Adverse tax opinions or events affecting the tax-exempt status of the Bonds;
- (vii) Modifications to rights of holders of the Bonds;
- (viii) Bond calls (other than mandatory sinking fund redemptions);
- (ix) Defeasances;
- (x) Release, substitution or sale of property securing repayment of the Bonds; and
- (xi) Rating changes.

The Securities and Exchange Commission requires the listing of (i) through (xi), although some of such events may not be applicable to the Bonds.

Amendments. The Undertaking may be amended, without the consent of the holders of the Bonds, but only upon the Authority obtaining an opinion of nationally recognized bond counsel to the effect that such amendment, and giving effect thereto, will not adversely affect the compliance of the Undertaking with the Rule; provided that the Authority shall have provided notice of such delivery and of the amendment to each then existing NRMSIR or the MSRB and the SID, if any. Any such amendment shall satisfy, unless otherwise permitted by the Rule, the following conditions:

- (i) the amendment may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law or change in the identity, nature or status of the Obligated Person (as defined hereinafter) or type of business conducted;
- (ii) the Undertaking, as amended, would have complied with the requirements of the Rule at the time of the primary offering, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and
- (iii) the amendment does not materially impair the interests of Bondholders, as determined either by parties unaffiliated with the Authority (such as nationally recognized bond counsel), or by approving vote of Bondholders pursuant to the terms of the Indenture at the time of the amendment.

Termination. The continuing obligation of the Authority and each other Obligated Person to provide Annual Information and Material Event Notices shall terminate immediately once the Bonds no longer are Outstanding. In addition, the Undertaking, or any provision thereof, shall be null and void in the event that the Authority obtains an opinion of nationally recognized bond counsel to the effect that those portions of the Rule which require the Undertaking, or any such provision, are invalid, have been repealed retroactively or otherwise do not apply to the Bonds, provided that the Authority shall have provided notice of such delivery and the cancellation of the Undertaking to the Trustee and to each then existing NRMSIR or the MSRB and the SID, if any.



*Obligated Persons.* At this time, only the Authority is an “Obligated Person” for annual reporting purposes under the criteria described in the Disclosure Agreement.

Any failure by the Authority to comply with the provisions of the Undertaking shall not be an event of default with respect to the Bonds (although any available remedy in equity may be pursued to compel the Authority’s compliance). Nevertheless such failure must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, any such failure may adversely affect the transferability and liquidity of the Bonds and their market price.

The Authority has not failed to comply with any prior such undertaking under the Rule. A failure by the Authority to comply with the Undertaking will not constitute an Event of Default under the Indentures (although Bondholders will have any available remedy at law or in equity). Nevertheless, such a failure must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the Bonds and their market price.

Bondholders are advised that the Disclosure Agreement, copies of which are available at the office of the Authority, should be read in its entirety for more complete information regarding its contents.

In order to provide certain continuing disclosure with respect to the Bonds in accordance with the Rule, the Authority has entered into a Disclosure Dissemination Agent Agreement ("Disclosure Dissemination Agreement") for the benefit of the holders of the Bonds with Digital Assurance Certification, L.L.C. ("DAC"), under which the Authority has designated DAC as Disclosure Dissemination Agent (the "Disclosure Dissemination Agent").

The Disclosure Dissemination Agent has only the duties specifically set forth in the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent's obligation to deliver the information at the times and with the contents described in the Disclosure Dissemination Agreement is limited to the extent the Authority has provided such information to the Disclosure Dissemination Agent as required by the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent has no duty with respect to the content of any disclosures or notice made pursuant to the terms of the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent has no duty or obligation to review or verify any information in the Annual Report, Audited Financial Statements, notice of Notice Event or Voluntary Report (as defined in the Disclosure Dissemination Agreement), or any other information, disclosures or notices provided to it by the Authority and shall not be deemed to be acting in any fiduciary capacity for the Authority, the holders of the Bonds or any other party. The Disclosure Dissemination Agent has no responsibility for the Authority's failure to report to the Disclosure Dissemination Agent a Notice Event or a duty to determine the materiality thereof. The Disclosure Dissemination Agent shall have no duty to determine or liability for failing to determine whether the Authority has complied with the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent may conclusively rely upon certifications of the Authority at all times.

## **UNDERWRITING**

UBS Financial Services Inc., as representative of the underwriters (collectively, the "Underwriter") has agreed, subject to certain conditions, to purchase the Bonds from the Authority at a price representing an aggregate discount from the initial public offering prices of the Bonds equal to \$52,437,936.50 (comprised of par amount of the Bonds plus net original issue premium of \$2,235,834.05 minus Underwriter's discount of \$182,897.55). The Underwriter will be obligated to purchase all the Bonds if any are purchased. In connection with this offering, the Underwriter may over allot or effect transactions which stabilize or maintain the market price of the Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time. The Underwriter may offer and sell the Bonds to certain dealers and dealer banks and others at prices lower or yields higher than the public offering prices or yields stated on the inside cover page hereof and said public offering prices or yields may be changed from time to time by the Underwriter.

## FINANCIAL ADVISOR

PNC Capital Markets, Inc. (the “Financial Advisor”) has served as the financial advisor to the Authority since 2000. The Financial Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. The Financial Advisor will receive a fee, payable from Bond proceeds, for its services with regard to the issuance of the Bonds.

## MISCELLANEOUS

The references, excerpts and summaries of all documents referred to herein do not purport to be complete statements of the provisions of such documents, and reference is made to all such documents for full and complete statements of all matters of fact relating to the Bonds, the security for the payment of the Bonds and the rights of the owners thereof. All capitalized terms used herein are used with the meaning set forth in the Indenture unless otherwise so specified.

The information contained in this Official Statement has been compiled from official and other sources deemed to be reliable and, while not guaranteed as to completeness or accuracy, is believed to be correct as of its date.

Any statement made in this Official Statement involving matters of opinion or of estimates, whether or not expressly so stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority since the date hereof.

This Official Statement has been duly executed and delivered on behalf of the Authority by an Authorized Representative.

**THE PITTSBURGH WATER AND SEWER AUTHORITY**

By: /s/ Joseph Preston, Jr.  
Chairman

## **APPENDIX A**

### **DESCRIPTION OF THE AUTHORITY**

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## ***Governance***

The Board of the Authority consists of seven (7) members with no fewer than six (6) members appointed by the Mayor of the City and approved by City Council. The terms of Office of the members commence on the date of appointment, and the members serve staggered five (5) year terms from the first Monday in January next succeeding the date of appointment or until appointment of a successor, whichever is later. The Authority currently has two vacant positions. The present members of the Board and officers of the Authority and their principal private affiliations are as follows:

<b><u>Member</u></b>	<b><u>Occupation</u></b>
Joseph Preston Jr. Chairman	Member, Pennsylvania General Assembly
Richard Fees Treasurer	Treasurer, City of Pittsburgh
Len Bodack, Jr. Secretary	Member, City Council City of Pittsburgh
Robert Provolt, Sr. Assistant Secretary/Treasurer	Union Representative
Ann J. Davis	Community Representative

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## ***Organization Summary***

The Authority is organized into three operating divisions: Administration, Water and Sewer Operations, and Engineering and Construction.

The Administration Division is responsible for the various administrative and support functions within the Authority. These include: customer service, billing and collections, personnel and finance, procurement, and management and data information systems.

The Water and Sewer Operations Division is responsible for the production and transmission of potable water and the collection and transmission of wastewater. Operating sections within this Division are: "Water Quality Operations" which ensures that the water produced meets all health and safety requirements; "Distribution and Collection" which is responsible for maintaining and repairing the water distribution system and repairing and maintaining the sewer collection system; "Treatment Process" which includes the water treatment plant and storage facilities; "Facilities Support" which is responsible for overseeing capital and scheduled facility repairs, system safety and security and "Stores Management" which is responsible for inventory.

The Engineering and Construction Division is responsible for developing, designing, initiating and monitoring all of the Authority's Capital Improvement Projects. In addition, this Division is responsible for reviewing plans prior to issuing permits for any connection into, or modification of, the water and sewer system; and for the maintenance and updating of the Authority's geographical information system.

### ***Key Management Personnel***

**Executive Director** -- Gregory F. Tutsock was appointed by the Board to the position of Executive Director in December 2000. Mr. Tutsock began his employment by the Authority and its predecessor, the City of Pittsburgh, Department of Water, in 1991 and has since held various management positions. Prior to his appointment to Executive Director, Mr. Tutsock served as the Authority's Deputy Executive Director (1997-2000) and Acting Executive Director (1996-1997). Mr. Tutsock has an Associate Degree in Engineering Technology and a Bachelor of Science Degree in Public Administration, both from Point Park University, Pittsburgh, Pennsylvania. He is a member of the American Water Works Association and the Pennsylvania Water Works Operator Association.

**Finance Director** -- Kelly Sikorski, CFA, joined the Authority's Administrative Division in January 2002. Ms. Sikorski is responsible for the financial affairs of the Authority including Accounting, Financial Reporting, Budgeting, Financial Planning, Banking, and Investor Relations. Ms. Sikorski was previously employed by Northeast Utilities where she gained over 11 years of experience in various finance related positions. Ms. Sikorski graduated from Bryant College, Smithfield, Rhode Island, with a Bachelor of Science Degree in Accounting, and earned a Master's Degree in Finance from the University of Hartford. Ms. Sikorski is a Chartered Financial Analyst and a State of Connecticut Certified Public Accountant. She is a member of the Pittsburgh Society of Financial Analysts, the Association for Investment Management and Research and the Government Finance Officers Association of Pennsylvania. She has recently announced that she will be departing the Authority shortly due to a family relocation. The Authority has begun a search for Ms. Sikorski's replacement.

**Water Quality Manager** -- Stanley States, Ph.D., has been the Water Quality Manager for the Authority and its predecessor the City of Pittsburgh, Department of Water, since 1977. In that position he is responsible for the laboratory; compliance with federal, state, and county water quality regulations; and the actual treatment process. He holds an MS in Forensic Chemistry and a Ph.D. in Environmental Biology from the University of Pittsburgh. Dr. States has conducted research and published extensively in the areas of water quality and treatment. He has served as an adjunct professor and has taught in the Graduate School of Public Health and the School of Engineering at the University of Pittsburgh. Most recently Dr. States has been involved in authoring and delivering counterterrorism security courses, to water and wastewater personnel across the nation, for the Department of Homeland Security and the Environmental Protection Agency. Dr. States is a member of the American Water Works Association, the Water Works Operators Association of Pennsylvania, the American Society for Microbiology, and the American Chemical Society.

**Director of Engineering and Construction** -- Michael Lichte, PE, joined the Authority in September 1999 after three years with the Allegheny County Health Department and 7 years with the U.S. Geological Survey. Mr. Lichte is responsible for the overall coordination and management of the Engineering and Construction Division's involvement in the Capital Improvement Program. Mr. Lichte graduated from Allegheny College with a Bachelor of Science Degree in Aquatic Environments. He earned a Master of Science in Civil Engineering from the University of Pittsburgh. He is a Registered Professional Engineer in the Commonwealth of Pennsylvania and is a member of the Water Environment Federation and American Water Works Association.

### ***U.S. Water, L.L.C. Management Contract with the Authority***

In 2001 the Authority entered into an executive management agreement with U.S. Water L.L.C. ("US Water"). US Water conducted a series of system audits and reviews of the Authority's functions and activities and submitted a five-year business plan based on the best practice recommendations set out in the audits. US Water's contract was extended to facilitate the implementation of key elements of their recommendations. With the most recent contract extension U.S. Water, now known as United Water Contract Services LLC ("United Water"), had been engaged to provide executive management services and to assist the Authority in the following areas:

- Implementation support for information technology systems;
- Developing training modules for Maintenance, Customer Services and Operations;
- Supporting implementation of business process changes and management reporting and control structure;
- Support for strategic and tactical business plan and process implementation.

In 2004 United Water expedited and completed the majority of their deliverables and facilitated a transition and sustainability plan. United Water will be providing limited institutional strengthening services and progress review evaluations in 2005.

In 2001, US Water, L.L.C. was a limited liability company organized under the laws of the State of Delaware, and operated 67 water and wastewater treatment facilities in the United States, serving customers in New Jersey, Pennsylvania, North Carolina, and Massachusetts and Connecticut, including the City of Easton, Pennsylvania.\* In August 2002, United Water acquired U.S. Water. Following the acquisition and through early 2005, U.S. Water operated as a subsidiary of United Water. In April of 2005, US Water L.L.C. and US Water Service Company were merged into one entity known as United Water Contract Services LLC. This change was made to reflect the merged skills and capabilities of each organization and fully integrate the acquisition into United Water.\*\*

In addition to US Water's domestic experience, United Water provides water and wastewater services to 11 million people in the United States. In addition to owning and operating utilities, United Water operates municipal systems through public-private partnerships and contract agreements. United Water operates four of the nations' largest water and wastewater contracts. United Water's corporate parent, Suez has a 120-year water and wastewater service history. Suez has 3,000 water management contracts serving over 120 million people in 30 countries.\*\*

\* Source: U.S. Water, L.L.C.

\*\* Source: United Water

### ***Capital Lease Agreement with the City of Pittsburgh***

In 1984, pursuant to the Lease and Management Agreement, the Authority leased the Water and Sewer System from the City and assumed responsibility for establishing and collecting user fees and charges and for maintaining and improving the Water and Sewer System. The Lease and Management Agreement further provided that the Water and Sewer System was to be operated and maintained for the Authority by the City, subject to the general supervision of the Authority. In 1995, the Authority and the City terminated the Lease and Management Agreement, and the Authority is acquiring the Water and Sewer System pursuant to the terms of the Capital Lease Agreement. The Capital Lease Agreement, which has a term of thirty (30) years, provides for payments totaling Ninety-Six Million Seventeen Thousand Two Hundred Forty-Nine Dollars and Sixty Cents (\$96,017,249.60), which, payments were made to the City during the initial three (3) years of said contract and further provides that on September 1, 2025, upon payment of One Dollar (\$1.00), the Authority will acquire title to the Water and Sewer System.

Concurrently with entering into the Capital Lease Agreement, the City and the Authority entered into a Cooperation Agreement, dated as of June 15, 1995 (the "Cooperation Agreement"). Pursuant to the Cooperation Agreement, the City provides certain specified engineering, communications, vehicle maintenance, legal, information and financial services to the Authority on a fee for services basis and the Authority makes certain other payments to the City to reimburse it for costs and capital expenses incurred by the City in regard to the operation and maintenance of the Sewer System. The Cooperation Agreement may be terminated by either party, upon ninety (90) days written notice.

### ***The Water Supply and Distribution System***

The water supply and distribution system (the "Water System") consists of a 117 million gallon per day rapid sand type treatment plant which was placed in service in 1969, 1,200 miles of mains and service lines, 30,000 valves, 8,000 fire hydrants, nine pumping stations, five reservoirs, and eleven storage tanks. The total storage capacity of the reservoirs and tanks is approximately 455 million gallons. Based on the average usage over the past several years, this capacity is sufficient to provide storage equivalent to approximately five to seven days of normal water usage. In the opinion of the Authority's Consulting Engineer, ATS - Chester Engineers, Inc. (the "Consulting Engineer"), the Water System's treated water quality exceeds all the current standards and levels of the federal Safe Drinking Water Act and the Pennsylvania Department of Environmental Protection (PADEP).

The sole source of water for the Water System is the Allegheny River for which the Authority and its predecessors have held withdrawal permits since 1943. In March 1989, the then Pennsylvania Department of Environmental Resources (now the "PADEP") issued the Authority a Water Allocation Permit under the 1939 Water Rights Act. This permit authorizes the withdrawal of up to 100 million gallons per day and the PADEP determined that this would cause no major impact on navigation. The current average withdrawal of water from the Allegheny River is approximately 70.5 million gallons per day, and the maximum withdrawal made on any one day was approximately 99 million gallons during the past year. The Authority's Consulting Engineer is of the opinion that the Allegheny River's water is of good quality, and that there is ample quantity to meet foreseeable demands given current allocation permit conditions and foreseeable river flow conditions.

The Water System currently provides approximately 83,000 residential, commercial, industrial and public customers with potable water and water for fire protection within the geographic boundaries of the City. This represents approximately 84 percent of the total population within the City with the balance served by three independent water purveyors.

In 2004, the total amount of water supplied by the Authority was approximately 26 billion gallons, an average of 73 million gallons per day. Approximately 1.2 billion gallons were sold to adjacent municipalities for resale to customers within their service areas.

No material decreases in customers or water usage are anticipated in the foreseeable future. The Authority's water treatment plant is capable of providing more water than is currently being used by its existing customers. The Authority has undertaken a marketing effort to sell potable water to municipalities and municipal authorities within the region. It is also investigating the opportunity to purchase existing water systems located in municipalities adjacent to its current service area. Sale of this available water to additional regional communities would be a source of new revenue to the Authority. To realize this potential revenue the Authority would be required to construct water lines or improve pumping facilities to serve some regional communities; and those communities would need to obtain subsidiary water allocation permits from PADEP.

The Authority's Consulting Engineer is of the opinion that the Water System is in adequate operating condition and has adequate capacity to meet demands in the foreseeable future, provided the Authority continues the rehabilitation and replacement program provided for in its ongoing Capital Improvement Program.



### ***Drinking Water Quality Regulatory Requirements***

The Authority monitors water drinking quality on a continuous basis, 365 days a year. Tests are conducted for contaminants that may be present in source water prior to treatment, during treatment and on finished water. The Authority meets or exceeds all current Federal and State water quality requirements and anticipates compliance with future proposed regulations, including the pending Stage 2 Disinfection Byproducts Rule and the Long-term Enhanced Surface Water Treatment Rule. Results of water quality measurements and regulatory compliance are reported annually in the Authority's Consumer Confidence Report.

The Authority operates an on site water quality laboratory capable of conducting analysis and detection on numerous contaminants. The PADEP has certified the laboratory to conduct and certify results for a number of these contaminants. The Authority routinely provides analysis for other water providers and the Allegheny County Health Department. The Federal Safe Drinking Act requires each state to prepare a comprehensive Source Water Protection Plan to identify potential sources of contaminants. The Authority, working with the PADEP, has prepared the plan for the Allegheny River.

### ***The Pilot Plant***

The pilot plant, located at the Pittsburgh Water Treatment Facility, was designed to simulate treatment and hydraulic conditions in the Authority's main plant. Constructed in 2000, the pilot plant enables the Authority to determine process control parameters and chemical applications and to conduct stress testing the plant to achieve the best effective and efficient plant operations to meet current and future regulatory compliance issues. The Authority has addressed the new regulations for Stage 1, the disinfection byproduct rule and the interim enhanced surface water treatment rule. The Authority has met the requirements for both rules. This was accomplished through studies by utilizing the pilot plant. The authority is confident it will meet requirements for the pending long-term enhanced surface water treatment rule and Stage 2 disinfection byproducts rule, again through studies utilizing the pilot plant, once the requirements are finalized.

### ***The Microfiltration Facility***

Pennsylvania's Department of Environmental Protection Regulations based on the Federal Safe Drinking Water Act of 1984 require all finished drinking water reservoirs to be covered by December 31, 1995. In order that Highland #1 reservoir could remain uncovered for environmental and limited recreational considerations, a 20 million gallon a day Microfiltration Facility was designed to provide further treatment before water is put into distribution. Microfiltration is a pressure-driven membrane process and consists of (0.1 micron pore size) membrane series for removal of suspended matter, turbidity, algae, fungi, protozoa, some microorganisms and cysts (including Cryptosporidium and Giardia). The Microfiltration Facility was placed into production in July 2002.

### ***The Sewer System***

The wastewater collection and transmission system (the "Sewer System") is part of a regional system which provides service to about 550,000 people, of whom nearly 325,000 live within the City. The total drainage area served by the regional system is approximately 80 square miles, of which the City comprises about 55 square miles, or nearly 70 percent of the total. The Sewer System is primarily a combined system designed to carry both storm and sanitary flows. The Sewer System is comprised of an extensive network of approximately 1,400 miles of sewer lines and four wastewater-pumping stations. The average age of the sewer lines is between 60 and 70 years old, with some portions reaching nearly 150 years in age.

The Sewer System conveys wastewater generated within the City boundaries to Allegheny County Sanitary Authority ("ALCOSAN") interceptors along the rivers of the City for conveyance to ALCOSAN's wastewater treatment facility for processing prior to discharge into the Ohio River. The ALCOSAN treatment facility, which is not part of the Water and Sewer System, is operated by ALCOSAN pursuant to the National Pollutant Discharge Elimination System ("NPDES") under Permit No.0025984.

The Sewer System also is utilized by 24 suburban municipalities pursuant to agreements with the City to convey their wastewater to the ALCOSAN treatment facility. Many of the agreements with the suburban municipalities provide for the sharing of maintenance or reconstruction costs of the Sewer System.

The Sewer System is designed so that during wet weather, a portion of the collected storm water and diluted wastewater is discharged to natural water courses by diversion chambers located throughout the Sewer System and at connections to the ALCOSAN interceptors. The Sewer System is in satisfactory operating condition and has adequate capacity for the dry weather wastewater flows; however, in the past during wet weather, the Sewer System has often been taxed beyond its capacity and has resulted in overflow, bypassing and flooding. Some of these conditions have been or will be eliminated through the implementation of the Authority's ongoing Capital Improvement Program. Federal and State Combined Sewer Overflow requirements are expected to have some future impact on the Authority and, so far as possible at this stage, this has been taken into account in the Authority's 5 year Business Plan. The Authority's Consulting Engineer is of the opinion that the Sewer System is in adequate operating condition but is in need of the ongoing Capital Improvement Program in order to correct existing deficiencies and maintain and upgrade the system to meet regulatory requirements (see discussion below under the heading "Government Regulation"). With the continuation of the Capital Improvement Program, it is anticipated that the Sewer System will be sufficient to meet foreseeable future demands and provide uninterrupted service to its users. See "CERTAIN BONDHOLDERS' RISKS, Certain Environmental Matters" above.

### ***Description of Service Area***

A description of the area served by the Water and Sewer System and selected demographics of the service area are set forth in Appendix D.

### ***Water and Sewer Rates***

The following tables present the Authority's Water and Sewer Rates and certain data with respect thereto and have been prepared by the Authority.

Ten Year Historical Rates (1994–2003) and Two Year Approved Rate Schedules (2004 –2005)

Year	Residential		Commercial		Industrial		Wholesale		Health & Education	
	(1)		(1)		(1)		(2)			
	Rate	Inc(3)	Rate	Inc(3)	Rate	Inc(3)	Rate	Inc(3)	Rate	Inc(4)
	\$	%	\$	%	\$	%	\$	%	\$	%
1994*	3.12	4	3.08	4	2.87	4	2.10	4	0	0
1994**	3.42	9.5	3.37	9.5	3.14	9.5	2.30	9.5	0	0
1995	3.76	9.9	3.70	9.9	3.45	9.9	2.53	9.9	0	0
1996	3.76	0	3.70	0	3.45	0	2.53	0	0	0
1997	3.76	0	3.70	0	3.45	0	2.53	0	0	0
1998	3.85	2.5	3.79	2.5	3.54	2.5	2.59	2.5	0	0
1999	3.95	2.5	3.88	2.5	3.63	2.5	2.65	2.5	5.31	(4)
2000	3.95	0	3.88	0	3.63	0	2.65	0	5.31	0
2001	3.95	0	3.88	0	3.63	0	2.65	0	5.31	0
2002	4.34	9.8	4.26	9.8	3.99	9.8	2.91	9.8	5.83	9.8
2003	4.64	7.0	4.56	7.0	4.26	7.0	3.11	7.0	6.24	7.0
2004	5.52	19.0	5.43	19.0	5.07	19.0	3.70	19.0	7.43	19.0
2005	6.46	17.0	6.35	17.0	5.93	17.0	4.33	17.0	8.69	17.0

\* Jan. 94

\*\* Sept. 94

(1) Rate per 1,000 gallons over minimum use per month.

(2) Up to 500,000 gallons

(3) Represents percentage increase over prior year

(4) New Rate Classification, rate per 1,000 gallons over minimum use per month.

### 2004 Water Consumption by Customer Classification (1)

<u>Classification</u>	<u>Customer</u>	<u>Percentage of usage</u>
Residential	74,148	40.5%
Commercial (2)	7,851	43.6%
Industrial	118	6.4%
Wholesale	18	9.5%
TOTAL	82,135	100.0%

(1) Excludes customers of other water purveyors.

(2) The "Commercial" category includes water usage by health and education sector, as well as various units of government.

### 2004 Survey of 10 Largest Users

<u>User</u>	<u>% of Total Usage for 2004</u>
1. Fox Chapel Water Authority	5.4
2. PA American Water Co.	2.2
3. DLM Foods	2.1
4. Pittsburgh Housing Authority	1.7
5. University of Pittsburgh	1.6
6. UPMC Health Systems	1.6
7. Borough of Millvale	1.1
8. ALCOSAN	1.0
9. West Penn Allegheny Health System	0.9
10. Reserve Water Dept.	0.8

Source: Pittsburgh Water and Sewer Authority

## 2005 Water Rate Survey of Major Area Suppliers

	Rate 1,000 Gal.	Minimum Monthly Charge	Minimum Gallons Per Month	Average Charge 5,000 Gal. Per Month
Aspinwall Borough	\$6.25	\$ -	-	\$31.25
Fox Chapel Authority	6.20	3.93	-	34.93
Monroeville Authority	3.92	7.84	2,000	19.60
<b>Pittsburgh Water and Sewer Authority (1)</b>	<b>5.00</b>	<b>12.42</b>	<b>1,000</b>	<b>32.42</b>
Plum Borough Municipal authority	2.95	10.73	1,875	19.90
Richland Township Municipal Authority	4.13	15.42	2,000	27.81
Shaler Township	3.57	4.17	1,000	22.02
Southwestern – Penn Water Authority	4.11	7.00	-	27.55
Westmoreland Authority – Forward Township	3.84	15.00	2,000	26.52
Westmoreland Authority – McKeesport	6.41	12.82	2,000	32.05
Westmoreland Authority – White Oak	3.36	8.72	1,000	23.24
Wilksburg – Penn Joint Water Authority	4.05	11.13	2,750	20.25

(1) Excluding \$1.46 for Sewer Use Rate

### *Relations with Other Municipalities*

In addition to the Authority's sales to residential, commercial and industrial customers, the Authority has entered into contracts with eight adjacent municipalities and one wholesale customer for the sale of water. The Authority is the primary source of water for three municipalities, pursuant to long-term contracts expiring in 2012 through 2015, which establish pricing structures with each municipality. Four municipalities and one wholesale customer each have entered into contracts with the Authority for peak capacity needs. Four of these contracts require monthly minimum charges to be received by the Authority and one is on an emergency basis only.

### *Prospective Water Sales and Sewer Services*

The Authority is capable of producing up to 100 million gallons of potable water each day. With current demand (including the requirements (and reserves) of other municipalities) at 70.5 million gallons per day the Authority has available surplus capacity. Also, in order to comply with current regulatory requirements the Authority will be making enhancements to the Sewer System through the Capital Improvement Program. These Sewer System enhancements will involve interaction with other municipalities (See "The Sewer System" for additional detail) and in connection therewith the Authority is continuing an initiative to market its surplus water capacity and extend its sewer services to other municipalities and water authorities in the region.

### *Expenses of Operation*

Salaries and related expenses account for approximately eighteen percent (18%) of the 2005 Budget for current expenses. In 2005 the Authority's budget provides for two hundred sixty-six (266) positions as follows: thirty-eight (38) in billing and collections; twenty-four (24) in administrative and accounting positions; one hundred ninety (190) in water and sewer operations and fourteen (14) in engineering. Payments to the City of Pittsburgh for services to be provided to the Authority under the Cooperation Agreement are approximately nine percent (9%) of the 2005 budgeted current expenses. In addition, utility fees and the cost of chemicals account for approximately eight (8%) of the 2005 current expense budget.

## Financial Operations

The Authority's income statement and annual debt service requirements are set forth in the following Financial History table. The table was prepared by the Authority using information contained in the audited financial statements for the years ended December 31, 2000 through December 31, 2004. The audited financial statements and management discussion and analysis for the years ended December 31, 2004 and 2003 are included as Appendix C.

### Financial History\* (Dollars expressed in thousands)

	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Operating revenues:					
Residential, commercial and industrial water sales	\$ 71,559	\$ 63,242	\$ 62,236	\$ 58,892	\$ 56,915
Utility water sales	--	--	--	--	--
Other	2,241	1,945	1,680	1,509	2,726
Total operating revenues	<u>73,800</u>	<u>65,187</u>	<u>63,916</u>	<u>60,401</u>	<u>59,641</u>
Operating Expenses:					
Direct operating expenses	29,607	30,011	26,367	27,364	21,494
Cooperation agreement operating expenses:					
Wastewater direct expenses	--	--	2,300	2,300	--
Indirect cost allocation - wastewater	3,000	3,000	3,000	3,000	3,000
Indirect cost allocation - water	4,150	4,150	1,850	1,850	4,150
Transfer costs, net					
Expense of water provided by other entities:					
Subsidy of customers located in the City	2,543	3,186	3,886	3,864	3,694
Depreciation	12,647	11,922	9,877	8,201	7,788
Amortization of capitalized lease assets	2,557	2,557	2,554	2,554	2,554
Total operating expenses	<u>54,504</u>	<u>54,826</u>	<u>49,834</u>	<u>49,133</u>	<u>42,680</u>
Operating income	<u>19,296</u>	<u>10,361</u>	<u>14,082</u>	<u>11,268</u>	<u>16,961</u>
Other revenues (expenses):					
Interest revenue	685	1,322	1,480	1,770	3,614
Interest expense	(26,727)	(28,355)	(25,944)	(23,459)	(22,116)
Unrealized gain/(loss) on trust investments	(84)	(53)	84	(94)	
Amortization of bond issue costs	(628)	(401)	(496)	(267)	(273)
Total other revenue (expense)	<u>(26,754)</u>	<u>(27,487)</u>	<u>(24,876)</u>	<u>(21,956)</u>	<u>(18,775)</u>
Increase/(Decrease) in Net Assets	<u>(7,458)</u>	<u>(17,126)</u>	<u>(10,794)</u>	<u>(10,688)</u>	<u>(1,814)</u>
Net Asset Surplus/(Deficit):					
Beginning of year	<u>(34,132)</u>	<u>(17,006)</u>	<u>(6,212)</u>	<u>4,476</u>	<u>6,290</u>
End of year	<u>\$ (41,590)</u>	<u>\$ (34,132)</u>	<u>\$ (17,006)</u>	<u>\$ (6,212)</u>	<u>\$ 4,476</u>
Annual debt service requirement					
Principal	\$ 12,079	\$ 14,055	\$ 10,065	\$ 9,635	\$ 9,245
Interest	23,325	26,631	25,738	22,123	22,516
Total annual debt service requirement	<u>\$ 35,404</u>	<u>\$ 40,686</u>	<u>\$ 35,803</u>	<u>\$ 31,758</u>	<u>\$ 31,761</u>

\* Financial history restated to conform with new requirements of Governmental Accounting Standards Board 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* adopted by the Authority as of January 1, 2001.

The Financial History table reflects the results of past operations and is not necessarily indicative of results of future operations. Future operations will be affected by various factors, including, but not limited to, regulatory mandates, rate changes, weather, labor contracts, population changes, business environment and other matters, the nature and effect of which cannot now be determined. See "CERTAIN BONDHOLDERS' RISKS".

### ***Billings, Collections and Enforcement***

All bills are due 20 days after the billing date and a penalty is applied 10 days past that date. The penalty is reflected on dunning notices generated and mailed to customers above a certain dollar threshold (dependent on customer class), and all unpaid balances and penalty are reflected on the next regularly monthly scheduled statement. In addition specified delinquent accounts are also issued to a collection agency, as a matter of routine, as part of the overall collection process. Termination is dependent on customer class and time of year.

In March 2003, as Phase 1 of an information technology ("IT") implementation plan, the Authority upgraded to an SAP billing and customer information system which has the ability to combine water and delinquent waste water charges on a single customer account, and has dunning abilities never before used by the Authority. This new system has enabled the Authority to better manage metering, billing and collection of customer accounts, as well as improving management of revenue forecasting and service work processing.

Also as part of the Phase 1 IT implementation, the Authority upgraded to an SAP finance and materials management system. The second phase of the IT implementation plan, which was completed in mid-2004, included additional enhancements to billing and collection capabilities and implementation of a comprehensive IT asset management system.

Effective May 2004, the Authority began direct-billing City residents for current wastewater treatment charges. The intent of this operational change (from purchasing delinquent wastewater receivables and billing) is to reduce delinquencies by providing for more timely billing and collection activities.

In order to effect this billing change, the Authority has entered into a tentative agreement with ALCOSAN relating to direct billing by the Authority of the ALCOSAN wastewater treatment charges. Under that agreement, the Authority is obligated to create and fund an escrow account covering a two-month billing period. That account has not yet been funded, although the Authority and ALCOSAN are currently in discussions as to the method and extent of such funding.

### ***Employee Relations and Retirement System***

The majority of employees of the Authority are represented by a labor organization under Act 195 of 1970 of the Commonwealth of Pennsylvania. The Pittsburgh Joint Collective Bargaining Committee represents blue-collar employees, the American Federation of State, County and Municipal Employees, Local 2719 represents white-collar employees and Local 2037 represents the foreman. Act 195 requires that bargaining start at least six months prior to the date on which the Authority's budget is adopted and that mediation be used if an impasse is reached. Since the time they were certified, the Authority has concluded numerous negotiations with these bargaining units without any labor stoppages. Four-year agreements were reached with each of the American Federation of State, County and Municipal Employees Locals. Local 2719 received salary increases on January 1, 2002, 2003, 2004 and 2005; and Local 2037 received salary increases effective January 1, 2002, 2003, 2004 and 2005. A five-year agreement was reached with the Pittsburgh Joint Collective Bargaining Committee, which provides for salary increases effective January 1, 2003, followed by additional increases on January 1, 2004, 2005, 2006, and 2007.

## ***Government Regulation***

The Authority is subject to Federal, State and County regulations in connection with water treatment, water distribution, wastewater collection, construction activities, and storage tank use and air emissions. At the Federal level, regulatory oversight is provided by the United States Environmental Protection Agency ("USEPA"); at the State level, oversight is provided by the PADEP; and at the local level, oversight is provided by the Allegheny County Health Department ("ACHD"). The system meets or is in the process of planning and implementing improvements to meet all applicable regulations, permits and licenses. The major regulatory programs governing the Authority's operations are discussed below, grouped by subject matter.

### ***Drinking Water***

Large municipal water suppliers, such as the Authority, provide drinking water in accordance with the Federal Safe Drinking Water Act, which was passed in 1974 and was amended in 1986 and 1996, regulating all systems which provide water for human consumption through at least 15 service connections, or regularly serve at least 25 individuals. The Federal Act gave USEPA the authority to establish drinking water standards to control the level of contaminants in drinking water, rules prescribing minimum methods of drinking water treatment, and requirements for monitoring and reporting of drinking water quality. Pennsylvania has adopted a corresponding Pennsylvania Safe Drinking Water Act in 1984, and the state regulatory program has received USEPA primary approval, meaning that PADEP primarily administers the permitting and regulatory program in Pennsylvania.

The Authority holds permits issued by PADEP for the operation of a public water supply system, and is required to comply with federal and state requirements for treatment, monitoring of water quality, reporting of monitoring results and notification of exceedances, and issuance of consumer confident reports to our customers.

### ***Water Quality***

Federal regulations adopted under the Federal Clean Water Act, and State rules enacted under the Pennsylvania Clean Streams Law, govern discharges of wastewater and stormwater. Any facility which discharges sewage, process wastewater, non-contact cooling water, stormwater from municipal separate storm sewer systems or stormwater associated with an industrial activity must obtain a National Pollutant Discharge Elimination System ("NPDES") Permit. Under program approval from USEPA, PADEP administers the NPDES Permit program in Pennsylvania.

The Authority and the City of Pittsburgh have been issued an NPDES Permit for discharge from the municipal separate storm sewer systems within the City.

The PWSA Water Treatment Plant recently applied for an NPDES Permit to allow treated process water discharges to the Allegheny River. The PWSA has been asked by the PADEP to provide additional information for their review of the permit application. Discharges have occurred prior and subsequent to submission of the application. The PWSA will determine what action, if any, is required once the permit has been issued.

An NPDES permit is also required for discharges from sewage treatment facilities and combined sewer overflows ("CSO"). Such a permit establishes discharge limitations, monitoring, and reporting requirements and compliance schedules. The PWSA has been issued its NPDES CSO Permit for its combined sewer overflows.

On January 29, 2004, the Authority entered into a Consent Order and Agreement which contains detailed requirements for addressing wet weather sewer overflows (see "CERTAIN BONDHOLDERS' RISKS, *Certain Environmental Matters*").

The City of Pittsburgh, ACHD and the Authority have rules and regulations prohibiting the introduction of hazardous chemicals or materials, including industrial byproducts, into the sewer collection and conveyance system. Enforcement is through the Allegheny County Health Department, the City of

Pittsburgh, Department of Public Safety, and the PADEP. Under USEPA requirements governing pretreatment of industrial wastewaters discharged to publicly owned treatment works, pretreatment regulations and monitoring of those regulations are the responsibility of ALCOSAN and the ACHD.

Section 303(d) of the federal Clean Water Act requires Pennsylvania to identify all impaired waters within the Commonwealth where technology-based treatment requirements for point and non point sources of pollution are not stringent enough to attain and or maintain applicable water quality standards. This is an ongoing evaluation program being conducted by the PADEP. At this time, the PWSA has not been notified of any identified problems.

### ***Storage Tanks***

The Pennsylvania Storage Tank and Spill Prevention Act established a comprehensive regulatory program for both aboveground and underground storage tanks and facilities. The Act allows the PADEP to develop environmental protection programs to prevent and clean up storage tank product releases and spills. The Act includes both enforcement provisions and a strong reliance on the private sector to implement the major program elements. PADEP has received approval to administer the state storage tank program in lieu of most corresponding provisions of the Federal Resource Conservation and Recovery Act underground storage tank program.

The Authority currently has 12 tanks requiring frequent inspections under the regulatory provisions.

All Authority storage tanks have been upgraded to meet current regulatory requirements for protection, monitoring and containment.

### ***Air Quality***

The Authority has completed a \$3 million upgrade to the chemical treatment facility at the water treatment plant. This upgrade addresses storage, handling and distribution, containment and monitoring. These improvements will ensure compliance with current and proposed water quality and environmental regulations. A major aspect of the upgrade has been the conversion of the chlorination system from one utilizing gaseous chlorine to one utilizing liquid chlorine. Chlorine in a liquid form is safer to handle and store.

ACHD administers the air quality permitting program under the provisions of the Federal Clean Air Act and the Pennsylvania Air Pollution Control Act. Under Article XXI of the ACHD Air Pollution Control Regulations, pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Stack emission standards are set for specific air quality parameters and enforced by permit. On January 29, 1996 the Allegheny Health Department, Air Quality Program, issued the Authority an Annual Air Quality Operating Permit, # 96-0117. This permit covers emissions generated at the Water Treatment Plant and is reviewed and renewed annually. PWSA is required to periodically sample and meet stack air emission standards at the treatment plant from its boilers.

### ***Intergovernmental Cooperation Authority Act***

The Act of February 12, 2004 (P.L. 73, No. 11) known as the Intergovernmental Cooperation Authority Act for Cities of the Second Class (the "ICA Act") provides certain limitations on borrowings of the City of Pittsburgh and its corporate entities. For purposes of the ICA Act, the Authority is a corporate entity of the City of Pittsburgh. Pursuant to the ICA Act, a Governing Board of the Intergovernmental Cooperation Authority for cities of the Second Class (the "ICA Board") was appointed to implement the provisions of the ICA Act, including entering into an Intergovernmental Cooperation Agreement with the City (the "ICA Agreement") and approving a five (5) year financial plan (the "Financial Plan") developed by the City of Pittsburgh. Pursuant to the ICA Act, the Authority is authorized to issue the Bonds only after the City of Pittsburgh has entered into the Intergovernmental Cooperation Agreement and the ICA Board has approved the City of Pittsburgh's financial plan (the "Financial Plan"). The ICA Board and the City of Pittsburgh executed the ICA Agreement, dated as of September 7, 2004, and the ICA Board approved the City of Pittsburgh's Financial Plan on November 5, 2004.



## **APPENDIX B**

### **SUMMARY OF INDENTURE**

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The Water and Sewer System Revenue Bonds, Series of 2005 (the "2005 Bonds") are being issued and secured under the Trust Indenture dated as of October 15, 1993 (the "Original Indenture"), as amended and supplemented by the First Supplemental Indenture, dated as of July 15, 1995, the Second Supplemental Indenture, dated as of March 1, 1998, the Third Supplemental Indenture, dated as of March 1, 2002, the Fourth Supplemental Indenture, dated as of September 15, 2003, and the Fifth Supplemental Indenture, dated as of June 1, 2005 (collectively, the "First Lien Indenture"). All bonds issued under the First Lien Indenture are hereinafter referred to as "Bonds."

This summary of the First Lien Indenture is qualified in all respects by specific reference to the First Lien Indenture. A copy of the First Lien Indenture may be reviewed at the offices of the Authority or the Trustee. Capitalized terms and phrases, not otherwise defined herein, shall have the meanings ascribed to them in the First Lien Indenture.

#### **Defined Terms.**

**Current Expenses.** The term "Current Expenses" shall mean the reasonable, proper and necessary costs of operation, maintenance and repair of the Water and Sewer System and Capital Additions and shall include, but without limiting the generality of the foregoing, administrative, engineering, legal, auditing and insurance expenses, liquidity facility fees and expenses, fees and expenses of the Trustee, any paying agent, and authorized depositories, an allowance for depreciation, any payments to pension or retirement funds and taxes, and payments payable by the Authority to the City under the Cooperation Agreement.

**Receipts and Revenues.** The term "Receipts and Revenues" shall mean any and all rates, fees, rents and charges established or to be established, levied and collected in connection with, and all other payments, receipts and revenues of whatever kind or character arising from, the operation or ownership of any property of the Authority or any part thereof (except tap or connection fees and charges to the extent such fees or charges are pledged in accordance with the Act as a refund to such person who has paid for the construction of any extension of the Water and Sewer System or assessment revenues which are subject to the lien of assessment bonds then outstanding), any income earned on the moneys or investments on deposit in the Debt Service Fund, Debt Service Reserve Fund, Construction Fund, Revenue Fund, Operation and Maintenance Fund and any sinking, purchase or analogous fund created under the First Lien Indenture.

**Pledge and Security.** Pursuant to the First Lien Indenture, the Receipts and Revenues after payment of the Authority's Current Expenses, together with all cash and investments from time to time held in any fund (other than the Rebate Fund) by the Trustee, is pledged by the Authority to the Trustee, its successors and assigns, to secure the payment of principal of and interest on all Bonds issued under the First Lien Indenture, the observance and performance of all the terms, provisions and conditions of the First Lien Indenture, and for the equal and ratable benefit and security of all and singular the present and future holders of the Bonds, without preference, priority or distinction as to lien or otherwise, except as otherwise provided in the First Lien Indenture, of any one Bond over any other Bond by reason of priority in the issue, sale or authentication thereof or otherwise. The municipal bond insurance policy with respect to the 1993 Bonds is for the sole benefit and security of the holders of the 1993 Bonds. The municipal bond insurance policy issued with respect to the 1998 Bonds is for the sole benefit and security of the holders of the 1998 Bonds. The municipal bond insurance policy issued with respect to the 2002 Bonds is for the sole benefit and security of the holders of the 2002 Bonds. The municipal bond insurance policy issued with respect to the 2003 Bonds is for the sole benefit and security of the holders of the 2003 Bonds and the Bond insurance policy issued with respect to the 2005 Bonds is for the sole benefit and security of the holders of the 2005 Bonds.

**Additional Bonds.** The Authority may issue additional Bonds, on a parity with the 2005 Bonds, the 2003 Bonds, the 2002 Bonds, the 1998A Bonds, the 1998B Bonds and the 1993 Bonds, for the purpose of financing the cost of acquiring or constructing capital additions or improvements, or for the purpose of refunding outstanding Bonds upon the conditions and terms set forth in the First Lien Indenture. In addition to the foregoing, the Authority may incur or assume additional debt provided that the security for such debt is subordinate to the lien of and security interests granted by the First Lien Indenture.

**Revenue Fund.** All Receipts and Revenues and all other amounts received by the Authority from any source (except as otherwise provided in the First Lien Indenture) shall be deposited in the Revenue Fund established by the Authority with one or more Authorized Depositaries.

**Operation and Maintenance Fund.** On or before the first day of each month, the Authority shall transfer from the Revenue Fund to the Operation and Maintenance Fund an amount equal to the amount budgeted by the Authority for that month for payment of the Current Expenses as the same become due. The Authority shall pay out of the Operation and Maintenance Fund its Current Expenses as the same shall become due. There is a special account within the Operation and Maintenance Fund called the "Operating Reserve Account." There shall be maintained in the Operating Reserve Account one-sixth of the amount equal to the Authority's budgeted Current Expenses for the current Fiscal Year. Amounts in the Operating Reserve Account shall be applied to pay the Current Expenses of the Authority to the extent that the amounts on deposit in the Operation and Maintenance Fund are insufficient.

**Debt Service Fund.** On or before each interest payment date, the Authority will transfer from the Revenue Fund for deposit in the Debt Service Fund an amount equal to the amount of interest accrued and payable to date, and on or before the first day of each month, the Authority shall transfer from the Revenue Fund to the Trustee for deposit in the Debt Service Fund an amount equal to 1/12th of the principal due on the Bonds on the next following principal payment date.

**Debt Service Reserve Fund.** There shall be maintained in the Debt Service Reserve Fund an amount equal to the maximum annual debt service requirements on the Bonds, subject to restrictions of federal tax laws. The amount required to be maintained in the Debt Service Reserve Fund may be in the form of cash, a letter of credit or other credit instrument, a surety bond, or a combination thereof.

**Redemption Fund.** The Authority may transfer to the Trustee for deposit to the credit of the Redemption Fund such amounts as it may elect for the purchase or redemption of Bonds at the option of the Authority and the Trustee shall apply such moneys to the purchase or redemption of Bonds in the amounts directed by the Authority. Upon any such purchase or redemption, the Trustee shall transfer from the Debt Service Fund to the Redemption Fund any amount deposited to the Debt Service Fund with respect to interest on the Bonds being redeemed and shall pay the interest due on the redemption date out of such moneys.

**Renewal and Replacement Fund.** On the dates and in the amounts set forth in the consulting engineer's report, money is transferred to the Renewal and Replacement Fund. The moneys at any time on deposit to the credit of the Renewal and Replacement Fund may be used by the Authority for extraordinary maintenance and repair of the Water and Sewer System or to pay the cost of capital additions or construction, or, to the extent of any insufficiency therein, to the Debt Service Fund or to any sinking, purchase or analogous fund.

**Rebate Fund.** Separate and apart from the pledge of the First Lien Indenture is a Rebate Fund. Within the Rebate Fund there is a 1993 Bonds Rebate Account, a 1998 Bonds Rebate Account, a 2002 Bonds Rebate Account, a 2003 Bonds Rebate Account, and a 2005 Bonds Rebate Account. Deposits, transfers and payments from the Rebate Accounts shall be made in accordance with tax regulatory agreements entered into with respect to the respective series of Bonds.

**Authorized Investments.** The funds of the First Lien Indenture may be invested in the following:

(a) Direct obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, provided, that the full faith and credit of the United States of America must be pledged to any such direct obligation or guarantee ("Direct Obligations").

(b) Direct obligations and fully guaranteed certificates of beneficial interest of the Export-Import Bank of the United States; consolidated debt obligations and letter of credit-backed issues of the Federal Home Loan Banks; participation certificates and senior debt obligations of the Federal Home Loan Mortgage Corporation ("FHLMCs"); debentures of the Federal Housing Administration; mortgage-backed securities (except stripped mortgage securities which are valued greater than par on the portion of unpaid principal) and senior debt obligations of the Federal National Mortgage Association ("FNMA"s); participation certificates of the General Services Administration; guaranteed mortgage-backed securities and guaranteed participation certificates of the Government National Mortgage Association ("GNMA"s); guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration; debt obligations and letter of credit-backed issues of the Student Loan Marketing Association; local authority bonds of the U.S. Department of Housing and Urban Development; guaranteed Title XI financings of the U.S. Maritime Administration; guaranteed transit bonds of the Washington Metropolitan Area Transit Authority; Resolution Funding Corporation securities.

(c) Direct obligations of any state of the United States of America or any subdivision or agency thereof whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's and "A" or better by S&P, or any obligation fully and unconditionally guaranteed by any state, subdivision or agency whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's and "A" or better by S&P.

(d) Commercial paper (having original maturities of not more than 270 days) rated, at the time of purchase, "P-1" by Moody's and "A-1" or better by S&P.

(e) Federal funds, unsecured certificates of deposit, time deposits or bankers acceptances (in each case having maturities of not more than 365 days) of any domestic bank including a branch office of a foreign bank which branch office is located in the United States, provided legal opinions are received to the effect that full and timely payment of such deposit or similar obligation is enforceable against the principal office or any branch of such bank, which, at the time of purchase, has a short-term "Bank Deposit" rating of "P-1" by Moody's and a "Short-Term CD" rating of "A-1" or better by S&P.

(f) Deposits of any bank or savings and loan association which has combined capital, surplus and undivided profits of not less than \$3 million, provided such deposits are continuously and fully insured by the Bank Insurance Fund or the Saving Association Insurance Fund of the Federal Deposit Insurance Corporation ("FDIC").

(g) Investments in money-market funds rated "AAAm" or "AAAm-G" by S&P.

(h) Repurchase agreements collateralized by Direct Obligations, GNMA"s, FNMA"s or FHLMCs with any registered broker/dealer subject to the Securities Investors' Protection Corporation jurisdiction or any commercial bank insured by the FDIC, if such broker/dealer or bank has an uninsured, unsecured and unguaranteed obligation rated "P-1" or "A3" or better by Moody's and "A-1" or "A-" or better by S&P, provided:

(i) a master repurchase agreement or specific written repurchase agreement governs the transactions; and

(ii) the securities are held free and clear of any lien by the Trustee or an independent third party acting solely as agent ("Agent") for the Trustee, and such third party is (i) a Federal Reserve Bank, (ii) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus and undivided profits of not less

that \$50 million, or (iii) a bank approved in writing for such purpose by the Bond insurers, and the Trustee shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Trustee; and

(iii) a perfected first security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. in such securities is created for the benefit of the Trustee; and

(iv) the repurchase agreement has a term of 180 days or less, and the Trustee or the agent will value the collateral securities no less frequently than weekly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two Business Days of such valuation; and

(v) the fair market value of the securities in relation to the amount of the repurchase obligation, including principal and interest, is equal to at least 103%.

(i) Investment agreements approved by the Bond insurers.

**Rate Covenant.** The Authority covenants that it will comply with (1) or (2) below in any fiscal year:

(1) The Authority will maintain, charge and collect, so long as any Bonds are outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates) together with other Receipts and Revenues, including any unrestricted cash and investments accumulated in the Revenue Fund at the beginning of each Fiscal Year, shall be at all times at least sufficient to provide annually:

- (a) Amounts sufficient to pay all of the Current Expenses of the Authority; and
- (b) An amount equal to 120% of the debt service requirements with respect to the Bonds and other Authority Long Term Indebtedness during the then current fiscal year of the Authority.

(2) The Authority will maintain, charge and collect, so long as any Bonds are outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates), together with other Receipts and Revenues, for the then current fiscal year (exclusive of interest income earned by the Authority on funds other than the Debt Service Reserve Fund; provided, however, that earnings on the construction/acquisition funds may also be included during any construction period, but only to the extent such earnings are expressly required to be either retained in the construction/acquisition funds and may be used to pay debt service on the Bonds or other Authority Long Term Indebtedness or are applied directly to payment of debt service on the Bonds or other Authority Long Term Indebtedness), shall be at all times at least sufficient to provide annually:

- (a) Funds to pay all of the Current Expenses of the Authority; and
- (b) An amount equal to 100% of the debt service requirements with respect to the Bonds and other Authority Long Term Indebtedness during the then current fiscal year of the Authority.

Calculation of compliance with the covenant shall be made on the following basis: (a) operating revenue, construction/acquisition fund income, earnings on the Debt Service Reserve Fund, expenses, required deposits to replenish any withdrawals from the Debt Service Reserve Fund and the Renewal and Replacement Fund which have not been capitalized shall be accounted for on the accrual basis; (b) costs of issuance of the Authority Bonds and other Authority Long Term Indebtedness may be treated as if such amounts are amortized over the life of the Authority Bonds and other Authority Long Term Indebtedness irrespective of any shorter period over which such costs are actually amortized; and (c) depreciation is specifically excluded from the calculation. In the event that any Policy Costs are due and owing at the time

of the calculation of the rate covenant, Gross Revenues of the Authority shall be reduced by the amount of any Policy Costs then due and owing.

The Authority also covenants with the holders of the Bonds that if at any time the revenues collected shall not be sufficient to enable the Authority to comply with the provisions set forth above, it will promptly revise its water or sewer rates, rents and other charges so that the Authority will be in compliance and so that any deficiencies in transfers of funds required to be made pursuant to the First Lien Indenture will be remedied before the end of the next ensuing fiscal year. In addition, with respect to the 2003 Bonds, (a) failure by the Authority to meet at least one of the requirements set forth in (1) and (2) above will constitute a breach requiring the Authority to engage a consultant within 60 days of the determination that such breach has occurred, and failure to engage and follow the recommendations of the consultant in a prompt manner will constitute an Event of Default as to the 2003 Bonds, and (b) failure to meet the test contained in (1) above when substituting "100%" for "120%" in (1)(b) will constitute an Event of Default as to the 2003 Bonds.

**Insurance of Water and Sewer System.** The Authority will at all times cause all the property of the Water and Sewer System which is of a character usually insured by persons operating properties of a similar nature to be properly insured and kept insured by a reputable insurance company or companies against loss or damage by fire or other hazards to the extent that such properties are usually insured by persons operating properties of a similar nature in the same or similar localities. Such policies of insurance shall be for the benefit of the Trustee and the Authority, as their respective interests may appear. All claims in excess of \$500,000 shall be made payable to the Trustee and shall be held by the Trustee as additional security until paid out by it as provided therein. All claims of \$500,000 or less shall be paid to the Authority.

**Employment of Independent Accountant; Annual Financial Report.** The Authority covenants to employ an independent auditor to perform such duties as are imposed on the independent auditor by the First Lien Indenture, including preparation of an audit report for the preceding fiscal year.

**Events of Default.** Each of the following events is hereby declared an "Event of Default" for any Bond issued under the First Lien Indenture:

(a) failure by the Authority to pay the principal of, or the premium (if any) payable upon the redemption of, any Bond when due and payable either at maturity, declaration, or by proceedings for redemption, or otherwise (no effect being given to payments made under the Bond insurance policies); or

(b) failure by the Authority to pay any installment of interest on any Bond when due and payable (no effect being given to payments made under the Bond insurance policies); or

(c) the entry of an order or decree appointing a receiver or receivers of the Water and Sewer System or of the Receipts and Revenues with the consent or acquiescence of the Authority, or, if such order or decree shall have been entered without the acquiescence or consent of the Authority, the failure of the Authority to cause such order or decree to be vacated or discharged or stayed on appeal within 90 days after entry; or

(d) the institution of any proceeding with the consent or acquiescence of the Authority for the purpose of effecting a composition between the Authority and its creditors, or for the purpose of adjusting the claims of such creditors pursuant to any Federal or State statute now or hereafter enacted, if the claims of such creditors are under any circumstances payable out of the Receipts and Revenues, or if such proceeding shall have been instituted without the consent or acquiescence of the Authority, the failure of the Authority to have such proceeding withdrawn, or any order entered therein vacated or discharged, within 90 days after the institution of such proceeding or the entry of such order; or

(e) the entry of a final judgment against the Authority, which judgment constitutes or could result in a lien or charge upon the Water and Sewer System or the Receipts and Revenues, or which materially and adversely affects the ownership, control or operation of the Water and Sewer System, if such judgment shall not be discharged within 90 days from the entry thereof, or if an appeal shall not be taken therefrom, or from the order, decree or process upon which or pursuant to which such judgment was

granted or entered, in such manner as to conclusively set aside the execution or levy under such judgment, order, decree or process, or the enforcement thereof; or

(f) the failure of the Authority to repair or replace, with reasonable dispatch, any part of the Water and Sewer System necessary for its efficient operation which shall have been destroyed or damaged (whether such failure promptly to repair or replace the same be due to the impracticability of such repair or replacement or the lack of funds therefor or for any other reason); or

(g) the failure or refusal of the Authority to comply with any provisions of the Municipality Authorities Act, as amended and supplemented, or the rendering of the Authority, for any reason, incapable of fulfilling its obligations thereunder or under the First Lien Indenture; or

(h) the failure of the Authority to observe any other covenant, condition or agreement of the Authority contained in the Bonds or in the First Lien Indenture and the continuation of such failure for a period of 60 days after written notice of such failure from the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the holders of not less than 25% in aggregate principal amount of the Bonds then outstanding, provided that (except as summarized under "Rate Covenant") the failure of the Authority to meet the rate covenant set forth in the First Lien Indenture shall not constitute an event of default thereunder, and provided further that if such failure is not capable of being remedied within 60 days after such notice, no Event of Default shall exist if the Authority commences the actions necessary for the cure of such failure within such 60 day period and diligently pursues such actions thereafter; or

(i) failure by the Authority to pay principal of, or premium (if any) payable upon the redemption of any Subordinate Bond when due and payable either at maturity or otherwise or to pay any installment of interest on any such Subordinate Bond when due and payable (no effect being given to payments made under a bond insurance policy) or any default under the Subordinate Indenture.

**Acceleration of Principal.** Upon the occurrence and continuance of any Event of Default, the Trustee may, and at the written request of Bondholders of not less than 25% in principal amount of the Bonds then outstanding shall, by written notice to the Authority, declare the Bonds to be immediately due and payable, whereupon they shall, without further action, become and be immediately due and payable. In addition, the Trustee shall be entitled to exercise any or all of the remedies granted to a trustee or under the Bond insurance policy or the Municipality Authorities Act. In no event, so long as the Bond insurance policy is in effect and the bond insurer is not in default thereunder, shall the Trustee accelerate the payment of the Bonds without the written consent of each bond insurer with respect to the series of Bonds it insures. The above provision, however, is subject to the condition that if, after the principal of said Bonds shall have been so declared to be due and payable, all arrears of interest, if any, upon the Bonds and interest on overdue installments of interest at the rate of interest specified therein, and the principal of all Bonds which have matured other than by reason of such declaration, shall have been paid by the Authority, and the Authority shall also have performed all other things in respect to which it may have been in default hereunder, and shall have paid the reasonable charges of the Trustee and its counsel and of the holders of said Bonds, including reasonable attorneys' fees paid or incurred, then, and in every such case, the holders of not less than a majority in aggregate principal amount of the Bonds then outstanding, by written notice to the Authority and to the Trustee, may waive such default and its consequences and such waiver shall be binding upon the Trustee and upon all holders of Bonds; but no such waiver shall extend to or affect any subsequent default or impair any rights or remedy consequent thereon. In no event, so long as a Bond insurance policy is in effect and the Bond insurer is not in default thereunder, shall the Trustee waive a default without the prior written consent of the bond insurer with respect to the series of Bonds it insures.

**Remedies of Trustee and Bondholders; Right of Entry.** Subject to the acceleration of principal provision above, upon the happening and during the continuance of any event of default, the Trustee may and, upon written request of the holders of not less than 25% in aggregate principal amount of the Bonds then outstanding, shall enter into and upon and take possession of the Water and Sewer System and each and every part thereof as for a condition broken and may exclude the Authority, its agents and employees and all persons claiming under them wholly therefrom and have, hold, use, operate, manage and control the same and each and every part thereof, and in the name of the Authority or otherwise as the Trustee shall deem best, conduct the business thereof and exercise all the rights and powers of the Authority with respect



to the Water and Sewer System and use all its then existing property, assets and franchises for that purpose and out of the Receipts and Revenues, maintain, restore, insure and keep insured, the Water and Sewer System against such hazards as are ordinarily insured against by a person operating a water and sewer system similar to the Water and Sewer System and from time to time may make all such necessary or proper repairs as to it may seem expedient, and establish, levy, maintain and collect such rates, rents and charges in connection with the Water and Sewer System as it may deem necessary, proper, desirable and reasonable, and collect and receive Receipts and Revenues, and after deducting therefrom the expenses of operation, maintenance and repair and all expenses incurred thereunder and all other proper outlays herein authorized and all such payments which may be made for insurance and other proper charges, including just and reasonable compensation for its own services, and for the services of such attorneys, agents and employees as it may, in the exercise of its discretion, employ for any of the purposes aforesaid, the Trustee shall apply the rest and residue of the moneys received by it, as well as all cash and investments held by the Trustee in any fund under the First Lien Indenture subject to the provisions thereof with respect to claims for principal and interest, to the payment of the principal of and interest on the Bonds. Whenever all that is due upon such Bonds and installments of interest and under any of the terms of the First Lien Indenture have been paid or deposited with the Trustee and all defaults made good, the Trustee in possession shall surrender possession to the Authority, its successors or assigns. However, the same right of entry shall exist upon any subsequent default or defaults. For purposes of this section, the bond insurer shall, so long as no default has occurred under its respective insurance policy, be deemed to be the owner of the series of Bonds which it insures.

**Judicial Action.** In case of the breach of any of the covenants or conditions of the First Lien Indenture, the Trustee shall have the right and power to take appropriate judicial proceedings for the enforcement of its rights and the rights of the Bondholders thereunder. Upon the happening of an Event of Default, the Trustee may either after entry, or without entry, proceed by suit or suits, actions or special proceedings at law or in equity to enforce its rights and the rights of the Bondholders under the First Lien Indenture, and it will be obligatory upon the Trustee to take action to that end, either by such proceedings or by the exercise of its powers with respect to entry or otherwise, as it may determine, upon being requested to do so by the holders of 25% in aggregate principal amount of the Bonds then outstanding and upon being indemnified. For purposes of this provision, each Bond insurer shall, so long as no event of default has occurred under its respective insurance policy, be deemed to be the owner of the Bonds it has insured.

So long as the Bond insurance policy is in effect and the Bond insurer is not in default thereunder, the Bond insurer may direct the Trustee with respect to the taking of each remedy and the Trustee may not take any action directed by the respective series of the Bondholders without the prior written consent of the Bond insurer.

**Limitations on Bondholders.** No holder of any Bonds shall have any right to institute any suit, action, or proceeding in equity or at law for the enforcement of the First Lien Indenture or for the execution of any trust thereof or for the appointment of a receiver or to exercise any other remedy thereunder, unless such holder shall have previously given to the Trustee written notice of an event of default and of the continuance thereof nor unless also the holders of at least 25% in aggregate principal amount of the Bonds shall have made written request of the Trustee and shall have offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name nor unless also they shall have offered to the Trustee adequate security and indemnity against the costs, expenses and liability to be incurred therein or thereby; and such notification, request and offer of indemnity are, at the option of the Trustee, conditions precedent to the execution of the powers and trusts of the First Lien Indenture or for the appointment of a receiver or for any other remedy thereunder; no one or more holders or registered owners of Bonds, however, have any right to affect, disturb or prejudice the lien of the First Lien Indenture by their action or to enforce any right thereunder except in the manner therein provided. Subject to the following paragraph, nothing shall affect or impair the right of any Bondholder, which is absolute and unconditional, to enforce the payment of the principal of and interest on its Bonds, or the obligation of the Authority, which is also absolute and unconditional, to pay the principal of and interest on the Bonds to the respective holders or registered owners thereof at the time and place in said Bonds expressed.

So long as any Bond insurance policy is in effect and the Bond insurer is not in default thereunder, the Bond insurer may direct the Trustee with respect to the series of Bonds which it insures with respect to the taking of each remedy and the Trustee may not take any action directed by such Bondholders without the prior written consent of the Bond insurer.

**Waivers and Supplemental Indentures Not Requiring Consent of Bondholders.** In addition to any supplemental indenture otherwise authorized by the First Lien Indenture, the Authority (with the prior written consent of the Bond insurer), and the Trustee may, from time to time and at any time, enter into such indentures or agreements supplemental to the First Lien Indenture as shall not be inconsistent with the terms and provisions thereof and which shall not adversely affect the rights of the holders of the Bonds (which supplemental indentures or agreements shall thereafter form a part thereof) for the following purposes:

- (a) to cure any ambiguity, formal defect or omission in the First Lien Indenture or any supplemental indenture;
- (b) to grant or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders or the Trustee;
- (c) to add to the covenants and agreements of the Authority in the First Lien Indenture other covenants and agreements thereafter to be observed, or to surrender any right or power therein reserved to or conferred upon the Authority;
- (d) to modify any of the provisions of the First Lien Indenture or to relieve the Authority of any of the obligations, conditions or restrictions contained in the First Lien Indenture, provided that such modification or relief shall not, by the express terms of the particular supplemental indenture, become effective until all Bonds outstanding on the date of the execution and delivery of such supplemental indenture shall no longer be outstanding;
- (e) to make such provision in regard to matters or questions arising under the First Lien Indenture as may be necessary or desirable and not inconsistent with the First Lien Indenture; or
- (f) to close the First Lien Indenture against, or to restrict, in addition to the limitations and restrictions therein contained, the issue of additional bonds thereunder, by imposing additional conditions and restrictions to be thereafter observed, whether applicable in respect of all Bonds issued and to be issued thereunder or in respect of one or more series of Bonds, or otherwise.

**Supplemental Indentures Requiring Consent of Bondholders.** With the consent of the holders of not less than 66-2/3% in aggregate principal amount of the Bonds then outstanding or, in the case one or more but less than all of the series of the Bonds then outstanding are affected, then, in addition, with the consent of the holders of not less than 66-2/3% of the principal amount of the Bonds of each series so affected then outstanding, and with the consent of any guarantor of principal of and interest on any series of Bonds, the Authority and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental to the First Lien Indenture for the purpose of eliminating any of the provisions of the First Lien Indenture or of any supplemental indenture or of modifying in any manner the rights of the holders of the Bonds so affected; provided, however, that no such supplemental indenture shall (i) extend the fixed maturity date of any Bond, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the holder of each Bond so affected, or (ii) permit the creation by the Authority of any lien prior to the lien of the First Lien Indenture upon any part of the Receipts and Revenues, or reduce the aforesaid percentage of Bonds, the holders of which are required to consent to any such supplemental indenture, without the consent of the holders of all Bonds then outstanding; provided, however, that in no event shall the provisions on Authorized Investments be amended. No supplemental indenture shall be effective unless it has been consented to in writing by the Bond insurers.

**Discharge of First Lien Indenture.** If the Authority, its successors or assigns, shall pay or cause to be paid unto the holders of all Bonds outstanding the principal and interest to become due thereon and the premium thereon, if any, then the First Lien Indenture and the estate and rights therein granted shall cease, determine and be void, and the Trustee shall, upon the request of the Authority, deliver to the Authority such instruments as shall be requisite to satisfy the lien thereof, and reconvey to the Authority the estate and title thereby conveyed, and assign and deliver to the Authority any property at the time subject to the lien of the First Lien Indenture which may then be in the possession of the Trustee.

Bonds for the payment or redemption of which there shall have been deposited with the Trustee cash or direct non-callable obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, to which direct obligation or guarantee the full faith and credit of the United States of America has been pledged, Refcorp interest strips, CATS, TIGRS, STRPS, or defeased municipal bonds rated "AAA" by S&P or "Aaa" by Moody's, any combination thereof or any other security approved by the Bond insurer), the principal of and interest on which when due will, without reinvestment of principal or interest, provide sufficient moneys to pay the Bonds in full at maturity or the date fixed for redemption, shall be deemed to be paid. In the event of an advance refunding, the Authority shall cause to be delivered a verification report of an independent nationally recognized certified public accountant.

**Removal of Trustee.** The Trustee may be removed at any time by an instrument in writing signed by not less than a majority in aggregate principal amount of Bonds outstanding and filed with the Authority. No such removal shall become effective until a successor trustee is appointed and has accepted the duties of Trustee.

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## **APPENDIX C**

### **AUTHORITY FINANCIAL STATEMENTS**

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# PITTSBURGH WATER AND SEWER AUTHORITY

## FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY AND ADDITIONAL INFORMATION

YEARS ENDED DECEMBER 31, 2004 AND 2003

WITH

INDEPENDENT AUDITOR'S REPORT

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**MAHER DUESSEL**

CERTIFIED PUBLIC ACCOUNTANTS

# **PITTSBURGH WATER AND SEWER AUTHORITY**

YEARS ENDED DECEMBER 31, 2004 AND 2003

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# **MAHER DUESSEL**

CERTIFIED PUBLIC ACCOUNTANTS

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## Independent Auditor's Report

Board of Directors  
Pittsburgh Water and Sewer Authority

We have audited the accompanying financial statements of the Pittsburgh Water and Sewer Authority (Authority), a component unit of the City of Pittsburgh (City), Pennsylvania, as of and for the years ended December 31, 2004 and 2003 as listed in the accompanying table of contents. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2004 and 2003, and the results of its operations and cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis Section is not a required part of the financial statements but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying additional information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.



March 3, 2005

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# THE PITTSBURGH WATER AND SEWER AUTHORITY

## 2004 Financial Statements Management's Discussion and Analysis

The Pittsburgh Water and Sewer Authority's (the "Authority") comparative 2004 and 2003 fiscal year financial statements enclosed have been conformed to meet the requirements of Governmental Accounting Standards Board ("GASB") Statement No. 34, *"Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments"*. The financial statements incorporate three basic statements: the Statements of Net Assets, the Statements of Revenues, Expenses and Changes in Net Assets, and Statements of Cash Flows.

This Management's Discussion and Analysis (MD&A) is based upon facts, decisions and conditions known as of the date of the audit report. Please note that the historical information provided in the financial statements and MD&A reflect the results of past operations and is not necessarily indicative of results of future operations. Future operations will be affected by various factors, including, but not limited to, regulatory mandates, rate changes, weather, labor contracts, population changes, business environment and other matters, the nature and effect which cannot now be determined.

### Using This Financial Report – Overview of Reporting Changes

The Statements of Net Assets present information about the resources which are available to the Authority and claims against these resources. Both assets and liabilities are classified in a format which segregates current from long-term. In addition, assets available for special purposes – labeled "restricted assets" are segregated from those assets available for operations. The Authority's restricted assets represent money on deposit with the bond trustee to meet indenture, debt service, and construction program requirements. Liabilities have a similar classification segregating claims on restricted assets from claims on assets available for operations. The net asset section of the statements of net assets classifies the total net asset deficit, as invested in capital assets, restricted for capital activity and debt service, and unrestricted.

The Statements of Revenues, Expenses and Changes in Net Assets summarize operating and non-operating activity for the fiscal year and the resulting impact on the Authority's net assets.

The Statements of Cash Flows have been prepared using the direct method. The statements provide an analysis of the Authority's cash by operating, investing, and capital and related financing activities over the respective fiscal year.

### Financial Highlights

In 2004, the Authority increased operating income by 86.2% or \$8.9 million and reduced net loss by 56.5% or \$9.7 million to \$7.5 million from \$17.1 million in 2003. Below are the 2004 financial highlights:

Operating revenues in 2004 increased \$8.6 million or 13.2% to \$73.8 million from \$65.2 million in 2003. Operating revenues were influenced by several factors:

- Effective February 1, 2004, rates increased by 19% and effective January 1, 2005, rates increased by 17%.
- In 2004, consumption increased by approximately 11% to 12.2 billion gallons from 11.0 billion gallons in 2003. This consumption increase is attributed to lower consumption in 2003 due to wet weather and higher consumption in the fall of 2004 due to area flooding.
- The Authority has estimated a reduction in 2004 revenues of \$1.2 million associated with a legal challenge concerning the calculation of the 2004 and 2005 rate increase. See Note 13, Subsequent Events for additional details.

Total operating expenses decreased slightly to \$54.5 million from \$54.8 million in 2003. Operating expenses were impacted by the following factors:

- Salary and employee benefit expense was up \$500,000 or 7%. The increase is attributed to a 3% salary increase for employees and rate increases in medical insurance premiums.

The majority of Authority employees are represented by one of three labor unions. The Pittsburgh Joint Collective Bargaining Committee (PJCBC) represents blue-collar employees, The American Federation of State, County and Municipal Employees (AFSCME), Local 2719 represents white-collar employees, and Local 2037 represents foreman. The four-year AFSCME agreement expires in December 2005 and the five-year PJCBC agreement expires in December 2007.

- Operating contract and repair and maintenance expenses were down \$800,000 or 16.5% due to a more mild winter season. Also in 2004, the Authority brought in house sewer jetting and video inspections and managed operating contract workloads to reduce costs. Offsetting these savings was a landslide that the Authority spent approximately \$250,000 to repair. The Authority has reserved \$500,000 for related claims and is pursuing legal remedies to recoup associated costs.
- In May 2004, the Authority began direct billing all City residents for Allegheny County Sanitary Authority (ALCOSAN) wastewater treatment charges. The intent of this operational change is to reduce delinquencies by providing for more timely billing and collection activities. Also in 2004, the Authority received over \$1.3 million on outstanding receivables of approximately \$4 million in a settlement agreement with Keystone Brewing. In 2004, collections increased by \$36.6M or 55% and the accounts receivable reserve adjustment decreased 25.7% or \$600,000. The decrease in expense and increase in collections were offset by an increase in payments to ALCOSAN, increases in bill printing and postage expense related to additional ALCOSAN billings to City residents that are not Authority water customers (approximately 30,000), and a net \$300,000 write-off related to the Keystone Brewing settlement of water charges.
- In 2003, the Authority expanded its collection agency activity to include not only delinquent wastewater receivables but also delinquent water accounts. As a result, collection agency expense in 2003 increased 75% or \$500,000. In 2004, collection agency activity stabilized. As a result, 2004 collection agency expense decreased 51.9% or approximately \$643,000.
- Utility expenses were up 12.9% or approximately \$500,000. The increase is due to higher electricity and natural gas rates.
- The Authority's 2004 rate increase exceeded the rate increase of other water providers in the City. This differential resulted in a decrease of the rate equalization subsidy by 20% or \$644,000.

Non-operating expenses decreased by 2.6% or \$733,000 to \$26.7 million from \$27.5 million in 2003. Non-operating expenses were impacted by the following factors:

- In September 2003, the Authority issued \$167.4 million in First Lien Revenue Refunding Bonds ("2003 Refunding Bonds") with an average yield of 3.8%. These Bonds were issued to partially refund at 102% \$158.1 million of the callable 1993 Series Bonds in October 2003. The issuance of the 2003 Refunding Bonds generated approximately \$4 million in interest savings which was realized over the 2003 – 2004 period.
- Interest expense was increased by approximately \$1.6 million from 2003 due to the decrease in capitalized interest and interest income decreased by \$637,000 from 2003 both resulting from utilization of 2002 bond proceeds.

Additional operating highlights include the following:

- As part of the executive management contract, United Water completed a comprehensive review of the Authority's information technology infrastructure in June 2002. Based on United Water recommendations in 2003, the Authority completed the implementation of SAP customer service and finance systems. In late 2003 and early 2004, the Authority completed the implementation of SAP fixed asset, project management and computerized maintenance management systems modules. As noted above, in May 2004, the Authority began direct billing for wastewater treatment charges. In September 2004, the Authority began offering a water line replacement program through a third-party provider.
- Debt service coverage in 2004 and 2003 was 1.60 and 1.41, respectively. These coverage factors exceed the 1.2 coverage factor required by bond covenant. As a decrease in beginning year cash balance was off-set by an increase in revenues, the increase in 2004 coverage from 2003 was due primarily to a decrease in debt service requirements. The 2003 debt service requirements included one-time principal, premium and penalty payments associated with the Internal Revenue Service Closing Agreement (see 2003 Annual Report for further detail).
- Due to invoicing delays during 2004, the Authority paid approximately \$2.5 million to the City of Pittsburgh for services rendered for all of 2003 through third quarter of 2004. Also in 2004, the Authority refunded over \$2 million dollars to a few large customers. These refunds were the result of customer service system implementation billing errors related to dual dial meters. The error was detected during the Authority's initiative to install automatic meter readers on large consumption customers that were being estimated. The Authority has made an attempt to ensure this issue has been addressed, however due to access difficulties there remains approximately 2,700 meters that have yet to be installed with automatic reading devices.
- The City of Pittsburgh is the largest of the 83 municipalities that convey raw sewage to ALCOSAN for treatment. In January 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (the Order) regarding sanitary and combined sewer overflows within the City of Pittsburgh. The other signatories to the Order are the Pennsylvania Department of Environmental Protection and Allegheny County Health Department which executed the Order on April 21, 2004. The intent of the Order is to develop a regional Long-Term Control Plan to address combined and sanitary sewer overflows and ultimately improve water quality.

The Order does not contain fines or penalties for past non-compliance, but does propose binding obligations for work on a going forward basis. The Authority continues to meet the requirements of the Order. See Note 12, Commitments and Contingencies, for additional details.

- The City of Pittsburgh is under financial stress. During 2004, there were various efforts being undertaken to resolve the financial situation. The Authority has three agreements with the City of Pittsburgh. The Authority leases the water and sewer system under the Capital Lease which was fully funded in 1998. The Authority makes payment to the City for direct and indirect services under the Cooperation Agreement. Under this Agreement, the Authority also funds on behalf of the City a rate equalization subsidy to other City water companies. Under separate agreement, the Authority also on behalf of the City is required to purchase delinquent wastewater treatment receivables. The Authority is financially self-sufficient and should not be adversely affected by any bankruptcy filing by the City. Any other actions by the City of Pittsburgh to increase Authority funding would require Board approval. Various public officials have been asking the City to consider selling some of its assets, including the water system; however there has been no action taken to date on this matter.

In February 2004, the Pennsylvania Legislature passed Act 2004-11, which limited the Authority's ability to borrow. This restriction was eliminated in early 2005 when the City of Pittsburgh entered into an agreement with the Intergovernmental Cooperation

Authority and had an approved financial plan in place. During 2004, as a result of this legislation, the Authority experienced minor delays on three active capital projects with the Pennsylvania Infrastructure Investment Authority and managed its capital program accordingly to ensure funding availability. The Authority currently anticipates its next borrowing to fund the capital improvement program in 2005. See Note 12, Commitments and Contingencies, for additional details.

## CONDENSED FINANCIAL STATEMENTS

### CONDENSED STATEMENT OF NET ASSETS

(Dollars expressed in thousands)

	December 31,		Variance	
	2004	2003	Dollars	%
Capital assets:			Increase (Decrease)	
Producing assets	\$ 424,309	\$ 403,796	\$ 20,513	5.1%
Construction in progress	17,413	21,655	(4,242)	-19.6%
Restricted assets	41,847	65,253	(23,406)	-35.9%
Current assets and bond costs	51,967	45,172	6,795	15.0%
<b>Total Assets</b>	<b>\$ 535,536</b>	<b>\$ 535,876</b>	<b>\$ (340)</b>	<b>-0.1%</b>
Liabilities:				
Current liabilities	\$ 44,049	\$ 34,385	\$ 9,664	28.1%
Long term liabilities	533,077	535,623	(2,546)	-0.5%
<b>Total Liabilities</b>	<b>577,126</b>	<b>570,008</b>	<b>7,118</b>	<b>1.2%</b>
Net Assets (Deficit):				
Invested in capital assets, net of related liabilities	(52,022)	(44,789)	(7,233)	16.1%
Restricted for capital activity and debt service	7,726	9,254	(1,528)	-16.5%
Unrestricted	2,706	1,403	1,303	92.9%
<b>Total Net Assets (Deficits)</b>	<b>(41,590)</b>	<b>(34,132)</b>	<b>(7,458)</b>	<b>21.9%</b>
<b>Total Liabilities and Net Assets (Deficits)</b>	<b>\$ 535,536</b>	<b>\$ 535,876</b>	<b>\$ (340)</b>	<b>-0.1%</b>

### CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

(Dollars expressed in thousands)

	Year Ended December 31,		Variance	
	2004	2003	Dollars	%
Operating Revenues	\$ 73,800	\$ 65,187	\$ 8,613	13.2%
Operating Expenses:			Increase (Decrease)	
Direct operating	29,607	30,011	(404)	-1.3%
Cooperation Agreement	7,150	7,150	-	0.0%
Subsidy of non-customer City residents	2,543	3,187	(644)	-20.2%
Depreciation and amortization	15,204	14,478	726	5.0%
<b>Total Operating Expenses</b>	<b>54,504</b>	<b>54,826</b>	<b>(322)</b>	<b>-0.6%</b>
Operating Income	19,296	10,361	8,935	86.2%
Non-operating revenue (expense):				
Interest revenue	685	1,322	(637)	-48.2%
Interest expense and other	(27,439)	(28,809)	1,370	-4.8%
<b>Total Non-operating Revenue (Expenses)</b>	<b>(26,754)</b>	<b>(27,487)</b>	<b>733</b>	<b>-2.7%</b>
<b>Net Loss</b>	<b>\$ (7,458)</b>	<b>\$ (17,126)</b>	<b>\$ 9,668</b>	<b>-56.5%</b>

## **Financial Condition**

The financial condition in 2004 improved. With action taken by management and the Board of Directors, operating expenses remained flat, subsidy and debt service expenses decreased, this coupled with higher consumption and a rate increase, enabled the Authority to reduce its overall net loss by 56.5% or \$9.7 million. The Authority recognizes the importance of restoring financial health and continues to take action. Effective January 1, 2005, rates increased 17%. This rate increase will help offset costs associated with increased existing debt service and a potential new bond issuance needed to fund the capital program and meet regulatory and other mandates. It should also help to offset operating costs. In 2005, the Authority also anticipates moving forward with cost of service, rate, and water loss studies. These studies will help evaluate current rate structures and levels in connection with future capital funding requirements as well as identify areas of water loss in an effort to control costs.

With the recent installation of the fixed asset, project management and computerized maintenance management system and adoption of an asset management plan and updated capital improvement procedures, the Authority expects to make improved financial decisions and to strengthen internal operational and maintenance related activities.

The Authority continues to address financial issues as part of its ongoing strategic plan. The business plan which has been introduced to the entire organization is focused on improving financial condition, customer service and internal effectiveness, maintaining regulatory compliance and security, and providing a culture that encourages employee development and safety. Key performance indicators have been developed and applied throughout the entire organization to measure and refine performance and expenses. Performance is monitored weekly and updates are provided to the entire organization quarterly. The Authority will continue to examine all work practices in order to find more effective and efficient methods of operation and remains fully committed to its vision of providing water and waste water services that meet or exceed regulations and customer expectations at the lowest possible cost.

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# PITTSBURGH WATER AND SEWER AUTHORITY

## STATEMENTS OF NET ASSETS

*(Dollars expressed in thousands)*

DECEMBER 31, 2004 AND 2003

<b>Assets</b>	<u>2004</u>	<u>2003</u>
Current assets:		
Cash and cash equivalents	\$ 20,617	\$ 20,895
Accounts receivable, net:		
Water:		
Billed	8,078	7,955
Unbilled	4,395	3,809
Total water	12,473	11,764
Wastewater treatment:		
Billed	4,949	2,982
Unbilled	2,505	147
Total wastewater treatment	7,454	3,129
Other receivables	2,332	1,358
Total accounts receivable, net	22,259	16,251
Prepaid expenses	179	180
Inventory	1,555	1,462
Total current assets	44,610	38,788
Noncurrent assets:		
Restricted assets:		
Accrued interest receivable	86	168
Cash and cash equivalents	25,757	8,311
Investments	16,004	56,774
Total restricted assets	41,847	65,253
Capital assets, net of accumulated depreciation	441,722	425,451
Bond issue costs, net of accumulated amortization	7,357	6,384
Total noncurrent assets	490,926	497,088
<b>Total Assets</b>	<b>\$ 535,536</b>	<b>\$ 535,876</b>

(Continued)

The notes to the financial statements are an integral part of this statement.

# PITTSBURGH WATER AND SEWER AUTHORITY

## STATEMENTS OF NET ASSETS

*(Dollars expressed in thousands)*

DECEMBER 31, 2004 AND 2003

(Continued)

	2004	2003
<b>Liabilities and Net Assets (Deficit)</b>		
<b>Liabilities:</b>		
Current liabilities:		
Bonds and loans payable, current portion	\$ 16,180	\$ 11,975
Accrued payroll and related obligations	810	743
Accounts payable wastewater treatment	11,965	3,598
Accounts payable and other accrued expenses	6,186	6,900
Accounts payable from restricted assets	2,357	4,939
Accrued interest payable from restricted assets	6,551	6,230
Total current liabilities	44,049	34,385
Noncurrent liabilities:		
Deferred revenue	442	551
Accrued payroll and related obligations	962	1,209
Bonds and loans payable, net of current portion	531,673	533,863
Total non current liabilities	533,077	535,623
Total Liabilities	577,126	570,008
<b>Net Assets (Deficit):</b>		
Invested in capital assets, net of related debt	(52,022)	(44,789)
Restricted for capital activity and debt service	7,726	9,254
Unrestricted	2,706	1,403
Total Net Assets (Deficit)	(41,590)	(34,132)
<b>Total Liabilities and Net Assets (Deficit)</b>	<b>\$ 535,536</b>	<b>\$ 535,876</b>

(Concluded)

The notes to the financial statements are an integral part of the statements.

# PITTSBURGH WATER AND SEWER AUTHORITY

## STATEMENTS OF REVENUES, EXPENSES, AND AND CHANGES IN NET ASSETS

*(Dollars expressed in thousands)*

YEARS ENDED DECEMBER 31, 2004 AND 2003

	2004	2003
<b>Operating Revenues:</b>		
Residential, commercial, and industrial water sales	\$ 71,559	\$ 63,242
Other	2,241	1,945
Total operating revenues	73,800	65,187
<b>Operating Expenses:</b>		
Direct operating expenses	29,607	30,011
Cooperation agreement operating expenses:		
Indirect cost allocation - wastewater	3,000	3,000
Indirect cost allocation - water	4,150	4,150
Expense of water provided by other entities:		
Subsidy of customers located in the City	2,543	3,187
Depreciation	12,647	11,921
Amortization of capitalized lease assets	2,557	2,557
Total operating expenses	54,504	54,826
<b>Operating Income</b>	19,296	10,361
<b>Non-operating Revenues (Expenses):</b>		
Interest revenue	685	1,322
Interest expense - bonds	(26,727)	(28,355)
Interest expense - other	(84)	(53)
Amortization of bond issue costs	(628)	(401)
Total non-operating revenues (expenses)	(26,754)	(27,487)
<b>Net Loss</b>	(7,458)	(17,126)
<b>Net Assets (Deficit):</b>		
Beginning of year	(34,132)	(17,006)
End of year	\$ (41,590)	\$ (34,132)

The notes to the financial statements are an integral part of this statement.

# PITTSBURGH WATER AND SEWER AUTHORITY

## STATEMENTS OF CASH FLOWS

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2004 AND 2003

	2004	2003
<b>Cash Flows From Operating Activities:</b>		
Cash received from customers	\$ 74,120	\$ 60,732
Cash received from delinquent sewage receivables	28,890	5,590
Cash paid to suppliers and employees and customer refunds	(32,395)	(23,039)
Cash paid to City of Pittsburgh under the Cooperation Agreement	(7,150)	(7,150)
Cash paid to other water companies for subsidy of customers located in the City of Pittsburgh	(2,606)	(3,316)
Cash paid to ALCOSAN for delinquent sewage receivables	(25,548)	(4,632)
Net cash provided by (used in) operating activities	35,311	28,185
<b>Cash Flows From Investing Activities:</b>		
Purchase of investment securities	(88,862)	(260,659)
Proceeds from sale and maturities of investment securities	139,464	293,550
Interest income	1,076	1,908
Net cash provided by (used in) investing activities	51,678	34,799
<b>Cash Flows From Capital and Related Financing Activities:</b>		
Purchase/construction of property, plant, and equipment	(32,815)	(29,394)
Proceeds from issuance of long-term debt	-	165,245
Redemption of outstanding bonds	-	(161,948)
Payment of bond issuance costs	(1,602)	(1,555)
Principal payment on debt	(12,079)	(14,055)
Interest paid on borrowings	(23,325)	(26,631)
IRS settlement costs	-	(917)
Net cash provided by (used in) capital and related financing activities	(69,821)	(69,255)
<b>Increase (Decrease) in Cash and Cash Equivalents</b>	17,168	(6,270)
<b>Cash and Cash Equivalents:</b>		
Beginning of year	29,206	35,476
End of year	\$ 46,374	\$ 29,206
Consists of:		
Restricted cash and cash equivalents	\$ 25,757	\$ 8,311
Unrestricted cash and cash equivalents	20,617	20,895
	\$ 46,374	\$ 29,206
<b>Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:</b>		
Operating income	\$ 19,296	\$ 10,361
Adjustments:		
Depreciation and amortization	15,204	14,478
Reserve for uncollectible amounts	1,808	2,433
Changes in assets and liabilities:		
Change in:		
Accounts receivable	(5,034)	(531)
Other accounts receivable	(974)	(1,011)
Wastewater accounts payable	8,367	(166)
Accounts payable and other accrued expenses	(714)	3,652
Accrued interest on restricted assets	321	(1,301)
Accounts payable restricted assets	(2,582)	663
Other	(381)	(393)
	\$ 35,311	\$ 28,185

The notes to the financial statement are an integral part of this statement.

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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### 1. ORGANIZATION

The Pittsburgh Water and Sewer Authority (Authority) provides water to approximately 83,000 residential, commercial, and industrial customers located in the City of Pittsburgh (City) and collects wastewater throughout the City.

A Board appointed by the Mayor of the City governs the Authority.

The Authority is a body politic and corporate organized and existing under the Pennsylvania Municipalities Authorities Act. The Authority was established by the City in 1984 to assume responsibility from the City for management, operation, maintenance, and improvement of virtually the entire City water supply, distribution, and wastewater collection systems (the "Water and Wastewater System" or "System"). At inception, the City contributed \$5.3 million to the Authority in the form of customer accounts receivable.

The Authority has the right to establish user fees and charges without being subject to the approval of any department, board, or agency of Pennsylvania or the City. The Authority is also authorized to issue bonds and notes payable solely from the Authority's revenues.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Reporting Entity

These financial statements present the financial position, income, changes in net assets, and cash flows of the Authority. The Authority is a component unit of the City as defined in Governmental Accounting Standards Board (GASB) Statement No. 14, "Financial Reporting Entity." The Authority's financial statements are not intended to present the financial position or results of operations of the City taken as a whole.

#### Basis of Accounting and Measurement Focus

The accompanying financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America, as prescribed by GASB. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. The Authority applies only the Financial Accounting Standards Board pronouncements issued before November 30, 1989.

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# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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The Authority functions as a Business-Type Activity, as defined by GASB. The significant GASB standards followed by the Authority are described as follows:

### Classification of Net Assets

In accordance with the provision of GASB Statement No. 34, "Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments," net assets are classified into three components – invested in capital assets, net of related debt; restricted; and unrestricted. These classifications are defined as follows:

- Invested in capital assets, net of related debt – This component of net assets consists of capital assets net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- Restricted – This component of net assets consists of constraints placed on net asset use through external restrictions.
- Unrestricted – This component of net assets consists of net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt." The net investment in joint ventures is also reflected here.

When an expense is incurred that can be paid using either restricted or unrestricted resources, the Authority's policy is to first apply the expense towards restricted resources and then towards unrestricted resources.

### Deferred Interest

Earnings on funds restricted for the purpose of capital improvements, net of related interest expense, are deferred and allocated to the cost of capital assets. Accordingly, during 2004 and 2003, the Authority capitalized interest expense of \$1,495 and \$3,411 respectively, net of deferred interest earnings of \$434 and \$933, respectively.

Earnings on forward float agreements are recorded as deferred revenue and recognized as interest revenue ratably over the life of each agreement.

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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### Cash and Cash Equivalents

Cash and cash equivalents include all highly liquid investments, both restricted and unrestricted, with maturity of three months or less at date of purchase.

### Bond Issue Costs, Premiums, and Discounts

Bond issue costs are deferred and amortized over the life of the related bonds using the effective interest method. The unamortized balance is an asset on the statement of net assets.

Original issue bond premiums and discounts are amortized over the life of the related bonds using the effective interest method of amortization. The unamortized balance of premiums and discounts is presented net on the statement of net assets as a decrease to bonds payable.

### Deferred Refunding Loss

In accordance with GASB Statement No. 23, "Accounting and Reporting for Refunding of Debt by Proprietary Activities," the excess of the reacquisition price over the net carrying amount of debt refunded with proceeds from the Series 1993, 1998, and 2003 Bonds were recorded as deferred refunding losses. The deferred refunding losses are being amortized using the effective interest method over the originally scheduled life of the defeased issues which extend to 2016, 2028, and 2023, respectively. The unamortized balances are reflected as a reduction of bonds payable.

### Capital Assets

Capital assets owned by the Authority are recorded at cost including that portion of deferred interest that is ultimately capitalized. Depreciation of fixed assets owned by the Authority is provided on the straight-line method based on the estimated useful lives of the various classes of assets. Utility assets have estimated useful lives ranging from 30 to 40 years. Non-utility assets have estimated useful lives ranging from 5 to 10 years.

The water and sewer system represents the assets leased from the City of Pittsburgh. Amortization of capital lease assets is provided on the straight-line basis applying an estimated average remaining useful life of forty years from the inception of the lease.

Maintenance and repairs are charged to expense as incurred.

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# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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### Clarification of Revenues

The Authority has classified its revenues as either operating or non-operating revenues according to the following criteria:

- Operating revenues – Operating revenues include activities that have the characteristics of exchange transactions, such as residential, commercial, and industrial water sales.
- Non-operating revenues – Non-operating revenues include activities that have the characteristics of non-exchange transactions, such as interest income and expense, and other revenue sources that are defined as non-operating revenues by GASB No. 9, *“Reporting Cash Flows of Proprietary and Non-expendable Trust Funds and Governmental Entities that Use Proprietary Fund Accounting”* and GASB No. 34.

### Compensated Absences

A liability for vacation, personal, and sick days is accrued when related benefits are attributable to services rendered and to the extent it is probable that the Authority will ultimately compensate employees.

### Inventory

Inventory is stated at cost, on a moving average price basis.

### Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## **3. TRANSACTIONS WITH THE CITY OF PITTSBURGH**

In 1984, pursuant to a Lease and Management Agreement, the Authority leased the System from the City and assumed responsibility for establishing and collecting user fees



# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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and charges and for maintaining and improving the System. The Lease and Management Agreement provided for the City to operate and maintain the System for the Authority subject to the general supervision of the Authority.

The City and the Authority agreed to terminate the Lease and Management Agreement in July 1995 and concurrently entered into a Capital Lease Agreement and a Cooperation Agreement (collectively referred to as the "Agreements").

### Cooperation Agreement

Under the terms of the Cooperation Agreement, City water department employees became employees of the Authority. As a result, the Authority assumed various personnel-related obligations from the City's water department. Other direct costs of the System's water operations are now generally paid directly by the Authority under the Cooperation Agreement, rather than paid by the City and reimbursed by the Authority. The City provides the Authority with various services in accordance with the Cooperation Agreement and the Authority reimburses the City for direct and indirect costs attributed by the City to the operation and maintenance of the System.

Under the Agreements, the Authority provides up to 600 million gallons of water annually for the City's use without charge. Also, the Authority assumes the City's obligation for the cost of subsidizing water service to residents of the City situated beyond the Authority's service area so that those water users pay charges which mirror the rates of the Authority.

### System Leases

The Capital Lease Agreement stipulates minimum lease payments of approximately \$101 million, all of which were satisfied during the initial three years of the capital lease.

The Capital Lease Agreement has a term of thirty years and provides the Authority with the option to purchase the System for one dollar in 2025.

### Pension

Employees of the Authority participate in the City's Municipal Pension Fund Plan ("Plan").

Employees who became members of the Plan prior to January 1, 1988 are required to contribute 5% of pre-tax pay. Those joining thereafter are required to contribute 4%.

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# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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Substantially, all the Authority's 2004 payroll of \$9,576 was covered by the Plan. Employee contributions for the year amounted to approximately \$377.

The City's obligations relative to the Plan are determined in accordance with various Pennsylvania statutes. The extent of the Authority's participation in such obligations with respect to those former City employees whose membership continued upon becoming employees of the Authority is determined by the shared interpretation of the City and Authority of the intent of the Cooperation Agreement.

The 2004 Minimum Municipal Obligation calculated for the City's Plan indicated a 2004 normal cost of \$413 associated with those former City employees whose participation continued upon becoming employees of the Authority as provided by the Cooperation Agreement. The Authority estimates that the normal cost for 2004, together with other elements of expense for employee service during 2004 would not exceed the sum of the 2004 contributions made by the Authority and employees.

Uncertainty exists about the future obligation of the Authority and its employees to make contributions to the Plan. Such contributions are contingent upon the continuing eligibility of the Authority's employees to participate in the City's Plan. Eligibility for ongoing employee participation in the City's Plan could end if the Authority were to introduce another pension plan. At this time, the Authority and City have no definite plans to establish another pension plan for the Authority, other than an agreement in principle that the Authority should have its own plan in the future. Future obligations of the Authority to make contributions to the Plan may also be subject to other amendments of the existing arrangement agreed-upon by the Authority and the City.

Normal retirement benefits are available upon attainment of age sixty and completion of twenty service years. Early retirement benefits are available upon attainment of age fifty and completion of eight service years. Early retirement benefits may be deferred until age sixty or may be obtained upon retirement at a reduced level. A member who terminates employment after attaining age forty and completing eight service years can sustain eligibility for benefits by continuing contributions through age fifty. A member who terminates employment after attaining fifteen service years, but has been a member since before January 1, 1975, can be vested by continuing contributions through age fifty.

Retirement benefits for employees who were members of the Plan are based upon a percentage of either three-year or four-year average pay, depending on date of hire, subject to certain specified minimum monthly benefit amounts. Special membership and benefit rules apply to those experiencing disability.

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# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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The "pension benefit obligation", which is an actuarial present value of credited projected benefits, is a standardized measure for financial statement disclosure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future by the Plan as a result of members' service to date. The measure is intended to help users assess the Plan's funding status on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due and make comparisons among public employee retirement systems. The Plan has not reported or attributed measurements of assets or the pension benefit obligation on the basis of the group of members who are Authority employees.

Additional information about the Plan and ten-year historical trend information showing the Plan's progress in accumulating sufficient assets to pay benefits when due is presented in the City's Comprehensive Annual Financial Report.

#### **4. REVENUE AND ACCOUNTS RECEIVABLE**

##### Water

Water sales revenue is recognized as earned during the period when water is supplied to customers. While some wholesale and large commercial and industrial customers have historically been billed monthly, during 1998, all other customers were converted from a quarterly billing cycle to a monthly billing cycle based on actual or estimated meter readings. The Authority recognizes unbilled accounts receivable for water service provided prior to year-end that is billed during the following year.

Water accounts receivable are presented net of a reserve for uncollectible amounts. This reserve, based upon historical experience, is recognized coincident with recognition of revenue. At December 31, 2004 and 2003, the reserve for uncollectible water accounts was approximately \$12.4 million and \$10.9 million, respectively. The Authority has rights to utilize collection agencies, service terminations, liens, and real property sales to protect its interests, limit further losses, and motivate payments from delinquent customers.

##### Wastewater Treatment

Although the Authority does not provide wastewater treatment, it assumed responsibility for certain wastewater treatment receivables beginning in 1996. Pursuant to a 1955 agreement, the City is responsible for paying the Allegheny County Sanitary Authority ("ALCOSAN") face amounts for delinquent wastewater treatment receivables. Until 1996, the City undertook to bill and collect these delinquent accounts directly. In 1996,

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

the City and the Authority entered into a memorandum of understanding ("MOU") whereby the Authority received assets including rights to wastewater treatment receivables assigned by the City and assumed the City's obligation to pay ALCOSAN for delinquencies. During 2004, the Authority and ALCOSAN, executed a first amendment to the 1955 agreement whereby the Authority elected to change the billing structure. Effective May 2004, the Authority began direct billing City residents for current wastewater treatment charges and remitting to ALCOSAN the aggregate amount of service charges billed. Related assets and liabilities appear on the statement of net assets. At December 31, 2004 and 2003, the reserve for uncollectible wastewater accounts was approximately \$7.5 million and \$7.3 million, respectively.

### 5. CAPITAL ASSETS

Capital assets consisted of the following at December 31, 2004 and 2003:

	Balance at December 31, 2003	Additions	Transfers	Balance at December 31, 2004
Capital assets not being depreciated:				
Construction in progress	\$ 21,655	\$ 30,302	\$(34,544)	\$ 17,413
Capital assets being depreciated:				
Water and sewer system	102,167	-	-	102,167
Utility assets	394,370	33,307	-	427,677
Non-utility assets	14,067	2,410	-	16,477
Total capital assets being depreciated	510,604	35,717	-	546,321
Total capital assets	532,259	66,019	(34,544)	563,734
Accumulated depreciation	(106,808)	(15,204)	-	(122,012)
Capital assets, net	<u>\$ 425,451</u>	<u>\$ 50,815</u>	<u>\$(34,544)</u>	<u>\$ 441,722</u>

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

	December 31, 2002	Additions	Transfers	December 31, 2003
Capital assets not being depreciated:				
Construction in progress	\$ 14,783	\$ 14,598	\$ (7,726)	\$ 21,655
Capital assets being depreciated:				
Water and sewer system	102,167	-	-	102,167
Utility assets	375,390	18,980	-	394,370
Non-utility assets	10,525	3,542	-	14,067
Total capital assets				
being depreciated	488,082	22,522	-	510,604
Total capital assets	502,865	37,120	(7,726)	532,259
Accumulated depreciation	(92,330)	(14,478)	-	(106,808)
Capital assets, net	<u>\$ 410,535</u>	<u>\$ 22,642</u>	<u>\$ (7,726)</u>	<u>\$ 425,451</u>

## 6. PAYROLL AND RELATED OBLIGATIONS

Payroll and related obligations presented on the statement of net assets comprise:

	Balance at December 31, 2003	Additions	Reductions	Balance at December 31, 2004	Current Portion
Compensated absences	\$ 902	\$ -	\$ (170)	\$ 732	\$ 49
Workers' compensation	495	-	(71)	424	151
Early retirement incentive	54	-	(32)	22	16
Payroll, withholdings, and taxes	501	93	-	594	594
	<u>\$ 1,952</u>	<u>\$ 93</u>	<u>\$ (273)</u>	<u>\$ 1,772</u>	<u>\$ 810</u>

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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	Balance at December 31, 2002	Additions	Reductions	Balance at December 31, 2003	Current Portion
Compensated absences	\$ 865	\$ 37	\$ -	\$ 902	\$ 53
Workers' compensation	664	-	(169)	495	153
Early retirement incentive	69	-	(15)	54	36
Payroll, withholdings, and taxes	449	52	-	501	501
	<u>\$ 2,047</u>	<u>\$ 89</u>	<u>\$ (184)</u>	<u>\$ 1,952</u>	<u>\$ 743</u>

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### 7. REVENUE BONDS

To finance its initial capital improvement program, the Authority issued Daily Adjustable Demand Water and Wastewater System Revenue Bonds of \$93,600 in 1984 ("1984 Bonds"). In 1985, the Authority issued Water and Wastewater System Adjustable Rate Tender Revenue Bonds ("1985 Bonds") that accomplished an advance refunding which defeased the 1984 Bonds. In 1986, the Authority issued \$134,700 Water and Wastewater System Adjustable Rate Tender Revenue Bonds ("1986 Bonds") to finance the next phase of its capital improvement program. In July 1991, the Authority issued \$248,329 Water and Wastewater System Revenue Refunding Bonds, Series A of 1991 ("1991 Bonds") which currently refunded all outstanding 1985 and 1986 Bonds. The principal of defeased 1986 Bonds still outstanding at December 31, 2004 and 2003 is \$180,255 and \$189,495, respectively.

In November 1993, the Authority issued \$278,970, Series A Refunding Bonds, ("Series A-1993 Bonds") and \$10,785 Series B Revenue Bonds, ("Series B-1993 Bonds") to finance additional capital improvements. Series A-1993 Bond proceeds of \$276,613 (net of \$3,402 in underwriting fees, FGIC insurance, and other issuance costs) defeased the 1991 Bonds through an advance refunding. The principal of defeased 1991 Bonds still outstanding at December 31, 2004 and 2003 was \$51,760 and \$64,700, respectively.

The Series A-1993 Bonds bear interest at a fixed rate of 6.5%, payable semiannually at March 1 and September 1.

Fair value of the 1993 Bonds at December 31, 2004 and 2003 based on quoted market prices, is approximately \$59 million and \$61 million, respectively.

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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In July 1995, the Authority issued \$89,850, Series A Bonds ("1995 Series A Bonds"), the proceeds of which are dedicated to a capital improvement program for the System and \$103,020, Series B Bonds ("1995 Series B Bonds") to fund certain obligations of the Authority to the City under the Capital Lease Agreement for the System.

In March 1998, the Authority issued \$93,355, Series A First Lien Revenue Bonds ("1998 Series A Bonds"), the proceeds of which were used to defease through an advance refunding the entire balance of 1995 Series A Bonds outstanding (\$89,850), \$36,440 Series B First Lien Revenue Bonds ("1998 Series B Bonds"), the proceeds of which are dedicated to a capital improvements program, and \$101,970 Series C Subordinate Revenue Bonds ("1998 Series C Bonds"), the proceeds of which were used to defease through an advance refunding the entire balance of the 1995 Series B Bonds outstanding (\$98,410). In connection with the advance refunding, a portion of the proceeds of the 1998 Bonds was deposited into an irrevocable trust with an escrow agent to provide for the future debt payments. At December 31, 2004 and 2003, the remaining unamortized deferred refunding loss of \$3,720 and \$4,018, respectively, on the transaction is shown as a reduction of the long-term debt and will be amortized through 2028. At December 31, 2004 and 2003, the principal of the defeased 1995 Bonds outstanding was \$154,221 and \$160,050, respectively.

Fair value of the 1998 Bonds at December 31, 2004 and 2003, based on quoted market prices, is approximately \$248 million and \$251 million, respectively.

The 1998 Series A Bonds and 1998 Series C Bonds bear interest at fixed rates ranging from 5.0% to 5.25%, payable semiannually at March 1 and September 1. The 1998 Series B Bonds are capital appreciation bonds with an original issuance amount of \$36,440. The 1998 Series B Bonds have maturity values of \$2.3 million to \$31.8 million from 2017 to 2030. The bonds were issued to yield rates from 5.18% to 5.3%. The 1998 Series B Bonds accrue and compound interest on a semiannual basis and are carried at cost plus accrued interest. Total maturity value of the 1998 Series B Bonds is \$166.1 million.

The outstanding 1993 Bonds are not subject to optional or mandatory redemption. A portion of the 1998 Bonds are subject to optional redemption in various face amounts beginning March 1, 2008.

In March 2002, the Authority issued \$107,500 in Water and Sewer First Lien Revenue Bonds ("2002 Bonds"). The net proceeds of the bond issuance (approximately \$90 million) will be used to fund additional capital improvements. Principal begins maturing

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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December 2003, and continues through December 2031. Approximately \$8 million was funded to the capitalized interest account to cover authority debt service for 2002 and 2003. Another \$7.3 million was funded to the debt service reserve account. Bond issuance costs included \$668 in underwriting fees, \$500 insurance, and \$532 in other issuance costs.

The 2002 Bonds bear interest at rates ranging from 4.00% to 5.50%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. Stated maturities for the 2002 Bonds are at various face amounts on September 1 of each year beginning December 1, 2004 through 2031. The 2002 Bonds which mature after September 1, 2012, are subject to redemption prior to maturity at the option of the Authority.

The fair market value of the 2002 Bonds at December 31, 2004 and 2003, based on quoted market prices, is approximately \$111 million and \$114 million, respectively.

On September 23, 2003, the Authority issued \$167,390,000 of Water and Sewer System Revenue Refunding Bonds ("2003 Bonds"). The proceeds of the 2003 Bonds were used to provide funds for the current refunding of a portion of the 1993 Bond Series. In connection with the 2003 debt refundings, the Authority recorded a deferred refunding adjustment of \$3,162 which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method. The unamortized balance of the deferred refunding adjustment is \$2,878 and \$3,105 at December 31, 2004 and 2003, respectively.

The 2003 Bonds were issued at a bond discount of \$830, which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method.

The 2003 Bonds bear interest at rates ranging from 1.45% to 4.75%. Interest is payable in semiannual installments on March 1 and September 1 until maturity. Stated maturities for the 2003 Bonds are at various face amounts on September 1 of each year beginning September 1, 2004 through 2023. The 2003 Bonds which mature after September 1, 2014, are subject to redemption prior to maturity at the option of the Authority.

The fair market value of the 2003 Bonds at December 31, 2004 and 2003, based on quoted market prices, is approximately \$158 million and \$169 million, respectively.



# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

### 8. BONDS AND LOANS PAYABLE

Bonds and state loans payable (PENNVEST), consisted of the following at December 31, 2004 and 2003:

	Balance at December 31, 2003	Additions	Reductions	Balance at December 31, 2004
Bonds and loans payable:				
Revenue bonds	\$ 565,137	\$ 2,639	\$ (11,765)	\$ 556,011
State loans (PENNVEST)	5,239	9,074	(313)	14,000
	<u>570,376</u>	<u>11,713</u>	<u>(12,078)</u>	<u>570,011</u>
Less: deferred refunding loss	(20,974)	-	2,141	(18,833)
Unamortized bond discount	(3,564)	-	239	(3,325)
Total bonds and loans	<u>\$ 545,838</u>	<u>\$ 11,713</u>	<u>\$ (9,698)</u>	<u>\$ 547,853</u>

	Balance at December 31, 2002	Additions	Reductions	Balance at December 31, 2003
Bonds and loans payable:				
Revenue bonds	\$ 567,401	\$ 169,896	\$ (172,160)	\$ 565,137
State loans (PENNVEST)	4,488	909	(158)	5,239
	<u>571,889</u>	<u>170,805</u>	<u>(172,318)</u>	<u>570,376</u>
Less: deferred refunding loss	(19,859)	(3,162)	2,047	(20,974)
Unamortized bond discount	(2,936)	(830)	202	(3,564)
Total bonds and loans	<u>\$ 549,094</u>	<u>\$ 166,813</u>	<u>\$ (170,069)</u>	<u>\$ 545,838</u>

The funds to make debt service payments of \$4,713 and \$3,444 for 2004 and 2003, respectively, are included in "Restricted Assets" at year-end.

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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	State Loans		
	Principal	Interest	Total
2005	\$ 550	\$ 134	\$ 684
2006	701	128	829
2007	707	127	834
2008	714	124	838
2009	723	131	854
2010-2014	3,720	539	4,259
2015-2019	3,989	232	4,221
2020-2024	2,896	79	2,975
	<u>\$ 14,000</u>	<u>\$ 1,494</u>	<u>\$ 15,494</u>

Debt service payments of the 1993, 1998, 2002, and 2003 Bonds at December 31, 2004 are as follows:

	Revenue Bonds		
	Principal	Interest	Total
2005	\$ 15,630	\$ 23,251	\$ 38,881
2006	15,905	22,973	38,878
2007	16,250	22,628	38,878
2008	16,660	22,217	38,877
2009	17,140	21,734	38,874
2010-2014	98,010	96,371	194,381
2015-2019	116,410	74,418	190,828
2020-2024	145,818	49,440	195,258
2025-2029	82,343	112,919	195,262
2030-2031	16,280	12,970	29,250
	<u>540,446</u>	<u>\$ 458,921</u>	<u>\$ 999,367</u>
Accretion	<u>15,565</u>		
Total	<u>\$ 556,011</u>		

Interest incurred for the years ended December 31, 2004 and 2003 on bonds payable, exclusive of capitalized interest and amortization of refunding losses was approximately \$26.2 million and \$30 million, respectively. Included in interest costs for 2004 and 2003

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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was amortization of the deferred refunding losses of \$2.1 million and \$2.0 million, respectively.

In accordance with the provisions of the trust indentures for the 1993, 1998, and 2002 Bonds, the Authority has created a number of funds that are restricted for specific purposes. The complement of these restricted funds, collectively referred to on the statement of net assets as "Restricted Assets" at December 31, 2004 and 2003, was:

	2004	2003
Capital project funds	\$ 14,835	\$ 37,220
Debt service and reserve funds	19,286	18,779
Operating reserve account	7,274	7,176
Other funds	452	2,078
Total	<u>\$ 41,847</u>	<u>\$ 65,253</u>

Among the Authority's debt covenants is one which requires that rates charged by the Authority will be sufficient to satisfy a formula which is intended to ensure that the Authority will be able to satisfy debt service requirements. The trust indenture also requires that revenue collections be deposited into a Revenue Fund and disbursed therefrom as provided for in the trust indenture. This Revenue Fund constitutes the vast majority of unrestricted funds cash and cash equivalents.

The General Assembly of the Commonwealth of Pennsylvania enacted the Intergovernmental Cooperation Authority Act for Cities of the Second Class (Act of 2004, February 12, P.L. 73, No. 11) (the "Act"). Section 208 of the Act provides that the City and its corporate entities may not borrow or receive funds for any lawful purpose unless the City has entered into an intergovernmental cooperation agreement with the Intergovernmental Cooperation Authority for Cities of the Second Class (the "ICA") and there is an approved financial plan in effect. The Authority, as a municipal authority to which the City has power of appointment, falls within the definition of "corporate entity." On September 7, 2004, the City and the ICA entered into an intergovernmental cooperation agreement in accordance with and pursuant to the Act. On November 5, 2004, the ICA approved the City's Five-Year Financial Plan ("Financial Plan"). In December 2004, the City adopted a budget consistent with the Financial Plan. Accordingly, all preconditions of Section 208 of the Act necessary for the City and its corporate entities to borrow or receive funds have been met.

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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### 9. INVESTMENTS AND DEPOSITS WITH FINANCIAL INSTITUTIONS

The Authority is authorized to invest in: obligations of the U.S. Government and government-sponsored agencies and instrumentalities; fully insured or collateralized certificates of deposits; commercial paper of the highest rating; repurchase agreements collateralized by government obligations or securities; highly rated bank promissory notes or investment funds or trusts; and, as to trustee assets, as otherwise permitted by the trust indenture as supplemented and amended in 1998. Throughout the years ended December 31, 2004 and 2003, the Authority invested its funds in such authorized investments.

The following is a summary of the Authority's cash deposits which were insured by the Federal Depository Insurance Company (Category 1) and cash and deposits which were not insured or collateralized in the Authority's name, but were collateralized in accordance with the requirements of Act 72 of the Commonwealth of Pennsylvania that the depository institution pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name (Category 3).

Total Category 1	Total Category 3	Bank Balance	Carrying Amount
<u>\$ 300</u>	<u>\$ 20,395</u>	<u>\$ 20,695</u>	<u>\$ 20,617</u>

GASB requires disclosure of investments (including certain amounts qualifying for classification as "cash and cash equivalents" for purposes of the statements of net assets and statements of cash flows) delineated in prescribed categories intended to give some indication of the level of risk assumed by the Authority.

At December 31, 2004 and 2003, all Authority investments (summarized below) met the criteria for "Category 3", which includes uninsured or unregistered investments for which the securities are held by the broker or dealer, or by its trust department or agent, but not in the Authority's name. ("Category 1" would include investments that are insured or registered or for which securities are held by the Authority or its agent in the Authority's name. "Category 2" would include uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the Authority's name.)

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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	2004	2003
	Fair Value	Fair Value
Categorized investments:		
Repurchase agreements	\$ 7,409	\$ 8,309
U.S. government securities	-	1,816
Local government securities	-	8,696
Uncategorized investments:		
Money market funds	25,757	2
Investment agreements	8,595	46,262
Total investments	<u>\$ 41,761</u>	<u>\$ 65,085</u>

### 10. NET ASSETS (DEFICIT)

Net assets represent the difference between assets and liabilities. An analysis of net asset (deficit) amounts is as follows:

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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	December 31,	
	2004	2003
Invested in capital assets, net of related liabilities:		
Net property, plant, and equipment in service	\$ 441,722	\$ 425,451
Debt as disclosed in footnote	(547,853)	(545,838)
Deferred amount on refunding	18,833	20,974
Bonds/loans issuance costs and discounts, net	3,325	3,564
Accounts payable for capital items	(2,170)	(4,939)
Funded debt from restricted assets:		
Unspent debt proceeds:		
Capital projects	14,835	37,220
Debt service and reserve funds	19,286	18,779
	<u>(52,022)</u>	<u>(44,789)</u>
Restricted for capital activity and debt service:		
Restricted cash and cash equivalents	25,756	8,311
Restricted investments	16,005	56,774
Restricted receivables	86	168
Liabilities payable from restricted assets:		
Unspent debt proceeds:		
Capital projects	(14,835)	(37,220)
Debt service and reserve funds	(19,286)	(18,779)
	<u>7,726</u>	<u>9,254</u>
Unrestricted	<u>2,706</u>	<u>1,403</u>
Total Net Assets (Deficit)	<u>\$ (41,590)</u>	<u>\$ (34,132)</u>

### 11. OPERATING LEASE

The Authority leases office space from an unrelated party under a non-cancelable lease. The general terms of the lease requires the lessor to provide for utilities, building repairs, maintenance, and real estate taxes. The lease provides for renewal options with similar terms at the then fair rental value negotiated in good faith. The total annual rental for the office space, in dollars, was approximately \$330,000 and \$329,921 for 2004 and 2003, respectively.

The total minimum future commitments, in dollars, under the lease for years ending December 31 are as follows:

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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2005	\$ 329,924
2006	192,456
	<u>\$ 522,380</u>

### 12. COMMITMENTS AND CONTINGENCIES

The Authority is proceeding with a capital improvement program which the Authority's independent engineer has estimated will entail expenditure of the existing construction funds and potential future bond issues. As of December 31, 2004, \$77 million of the program is complete and \$68 million is under active contract.

In addition to the matters discussed in Note 14, Consent Agreement, various other claims and lawsuits are pending against the Authority. The ultimate outcome of these claims and lawsuits cannot presently be determined and, accordingly, no provision for amounts arising from settlements has been made in these financial statements. In the opinion of management, the effect on the financial statements of potential losses associated with any such claim and/or lawsuit should not be material.

The Authority was insured for general liability coverage through 2001; however, effective January 1, 2002 became self-insured. In previous years, the Authority established a fund to pay for deductibles, small claims, and other litigation costs. At year-end, the balance in this fund was approximately \$397. This fund is grouped with "Restricted Assets" on the statements of net assets. During 2004 and 2003, the Authority paid \$0 from this fund for claims, and there is \$500 and \$0 accrued as of December 31, 2004 and 2003, respectively.

### 13. SUBSEQUENT EVENTS

Usage rates increased by 17% effective January 1, 2005.

On February 28, 2005, an individual filed a purported class action claim against the Authority arising out of the Authority's rate increases in February 2004 and January 2005. In that action, *Delcimmuto v. Pittsburgh Water & Sewer Authority*, No. G.D. 05-5097 in the Court of Common Pleas of Allegheny County, the Plaintiff has alleged that although these rate increases were not to be in effect until February 1, 2004 and January 1, 2005, certain Authority customers may have been billed at the higher rate for the entire billing month, and not at a prorated amount to reflect the actual effective date of the rate increases. This claim could involve a large percentage of the Authority's approximately 83,000 customers, each of whom, if successful could be entitled to a credit for any days within the particular billing month that may have preceded the effective date of the rate

# PITTSBURGH WATER AND SEWER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2004 AND 2003

*(Dollars expressed in thousands unless otherwise indicated)*

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increase. The Authority currently is investigating the claim, and, if appropriate, intends to credit the accounts of those affected customers. The Authority has currently estimated the amount of credits relating to both the February 2004 and January 2005 rate increases to be approximately \$1.2 million. This estimate has been recorded as a reduction to the residential, commercial, and industrial water sales on the Statements of Revenues, Expenses, and Changes in net Assets.

### 14. CONSENT AGREEMENT

The Authority is subject to federal regulation under the Clean Water Act (1977) and regulations adopted under that Act. Among the specific requirements applicable to the Authority's system are those imposed by the United States Environmental Protection Agency's Combined Sewer Overflow (CSO) Policy (1994). On January 29, 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (Order) regarding wet weather sewer overflows within the City. The other signatories to the Order are the Pennsylvania Department of Environmental Protection (DEP) and the Allegheny County Health Department (ACHD).

Generally, the Order requires the Authority and the City to assess the City sewers in order to develop a plan with ALCOSAN to address wet weather sewer overflows within the City. The Order is part of a sewer assessment program for all municipalities served by ALCOSAN. Most assessment activities for critical sewers and separate sanitary sewers are to be completed by 2010. Assessment activities for non-critical sewers are to be completed on a longer schedule with some tasks to be completed by 2012. In addition to the assessment, the Order requires the Authority and the City to implement the Nine Minimum Controls to reduce combined sewer overflows, and to perform repairs and maintenance of deficiencies revealed by the assessment. Deficiency corrections identified during assessment in critical sewers and separate sanitary sewers are to be completed by 2010, and in non-critical sewers are to be completed by 2012.

Given the scope of the Order, the size of the City sewer system, and the various conditions and/or deficiencies that may be discovered by the assessment, it is difficult to predict the total cost of compliance with the Order. Moreover, it is difficult to predict what, if any, large-scale and/or regional capital improvements may be required after the completion of the assessment to address wet weather sewer overflows in the City and in the ALCOSAN service area. Large-scale and/or regional capital improvements are not covered by the Order. The Authority has hired two engineering firms to assess and model the sewer system, and it is moving forward with its plans to comply with the Order. Costs associated with Order compliance will be reflected in the capital improvement program and funded by proceeds of potential future bond issuances.

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## ADDITIONAL INFORMATION

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# PITTSBURGH WATER AND SEWER AUTHORITY

## SCHEDULE OF RESTRICTED ASSETS COMPOSITION - SCHEDULE I

(Dollars expressed in thousands)

DECEMBER 31, 2004

	Total	Unrealized Gain/(Loss)	Accrued Interest Receivable	Tri-Party Repurchase Agreement	Investments	
					Commonwealth of PA Revenue Bonds	Morgan Stanley Note (1)
Capital project and construction funds:						
1995 Capital Project Fund	\$ 536	- \$	1 \$	-	\$ 535	\$ -
2002 Capital Project Fund	14,299	-	23	14,276	-	-
	14,835	-	24	14,276	535	-
Debt service funds:						
1993 Debt Service Fund	1,070	-	2	266	802	-
1998 C Debt Service Fund	1,680	-	2	1,678	-	-
1998 A Debt Service Fund	1,572	-	2	1,570	-	-
2002 Debt Service Fund	1,290	-	2	1,288	-	-
2002 Debt Service Reserve Fund	7,442	111	32	1	-	7,298
2003 Debt Service Fund	6,233	-	7	6,226	-	-
	19,287	111	47	11,029	802	7,298
1993 Operating Reserve Fund	7,275	-	15	2	7,258	-
Self-Insured Escrow Fund	450	-	-	450	-	-
	\$ 41,847	\$ 111	\$ 86	\$ 25,757	\$ 8,595	\$ 7,298

(1) \$7,298 at 5.15% - Investment agreement.

# PITTSBURGH WATER AND SEWER AUTHORITY

## SCHEDULE OF RESTRICTED ASSETS ACTIVITY - SCHEDULE II (Dollars expressed in thousands)

YEAR ENDED DECEMBER 31, 2004

	Series 1993 Bonds			Series 1998 Bonds			Series 2002 Bonds			Series 2003 Bonds			Total
	Debt Service Fund	Operating Reserve Account	Capital Projects Fund	Series A Debt Service Fund	Series C Debt Service Fund	Capital Projects Fund	Debt Service Fund	Debt Service Fund	Clearing Fund	Debt Service Fund	Redemption Fund	Self-Insured Escrow Account	
<b>Increases:</b>													
Interest	\$ 12	\$ 99	\$ 8	\$ 47	\$ 50	\$ 293	\$ 22	\$ 380	\$ (2)	\$ 42	\$ -	\$ 4	\$ 955
Total increases	12	99	8	47	50	293	22	380	(2)	42	-	4	955
New Refunding Bond issue	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Decreases:</b>													
Capital projects	-	-	-	-	-	21,981	-	-	-	-	-	-	21,981
Interest	3,192	-	-	4,704	5,029	-	5,385	-	-	4,931	-	-	23,241
Bond principal/refunding escrow	-	-	-	-	-	-	1,910	-	-	9,855	-	-	11,765
Other	10	-	-	-	-	-	-	53	1,602	-	-	-	1,665
Total decreases	3,202	-	-	4,704	5,029	21,981	7,295	53	1,602	14,786	-	-	58,652
<b>Interfund Transfers:</b>													
Nontrusted accounts	1,692	-	-	4,641	4,917	-	6,175	-	-	16,816	-	50	34,291
2002 Capital Interest Fund	-	-	-	-	-	(705)	705	-	-	-	-	-	-
2002 Debt Service Fund	-	-	-	-	-	152	-	-	-	-	-	-	152
2002 Debt Service Reserve Fund	-	-	-	-	-	-	567	(567)	-	-	-	-	-
2003 Debt Service Fund	-	-	(152)	-	-	-	-	-	(41)	41	-	-	(152)
2003 Redemption Fund	37	-	-	-	-	-	-	-	-	-	(37)	-	-
Total interfund transfers	1,729	-	(152)	4,641	4,917	(553)	7,447	(567)	(41)	16,857	(37)	50	34,291
Net activity	(1,461)	99	(144)	(16)	(62)	(22,241)	174	(240)	(1,645)	2,113	(37)	54	(23,406)
<b>Balance:</b>													
Beginning of year	2,531	7,176	680	1,588	1,742	36,540	1,116	7,682	1,645	4,120	37	396	65,253
End of year	\$ 1,070	\$ 7,275	\$ 536	\$ 1,572	\$ 1,680	\$ 14,299	\$ 1,290	\$ 7,442	\$ -	\$ 6,233	\$ -	\$ 450	\$ 41,847

**APPENDIX D**

**CERTAIN DEMOGRAPHIC AND ECONOMIC  
INFORMATION PERTAINING TO THE CITY OF PITTSBURGH**

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## **CITY OF PITTSBURGH, PENNSYLVANIA**

Located at the confluence of the Ohio, Monongahela, and Allegheny Rivers, the City of Pittsburgh serves as the seat for Allegheny County. Pittsburgh is the largest of the County's 130 municipalities. Downtown Pittsburgh is commonly known as the Golden Triangle and serves as the regional center of Southwestern Pennsylvania, Eastern Ohio and Northern West Virginia. According to the 2000 Census, population figures were approximately 340,000 for the City, 947,000 for Allegheny County, and 2,024,000 for the Pittsburgh MSA.

### ***Economic Background***

Pittsburgh has consistently been a leader in developing and capitalizing on new industries. In the mid-1800s, Pittsburgh gained notoriety for developing its glass, iron, and steel industries and emerged as the world's steel-producing capital by the end of the century. Today, while heavy manufacturing continues to play a role in the City's economic growth, it is no longer the region's sole driving force. Instead, Pittsburgh has reestablished itself as a leader in technological innovation, producing a diverse economy consisting of high technology, finance, healthcare, retail, law, and education sectors. Pittsburgh's economy is now fueled in great part by information technology and biotechnology firms that have grown out of the region's strong universities.

### ***Economic Condition and Outlook***

The City continues to build and strengthen its economy not only by expanding existing businesses, but also by working to attract new businesses and industries to the region. Tax credits granted by both the federal government and the Commonwealth of Pennsylvania provide financial incentives for companies to hire new employees. The City maintains three State Enterprise Zones, which enable businesses located within those designated areas to take advantage of favorable interest rates and additional tax incentives. The City now has several sites included among the Commonwealth's Keystone Opportunity Zones, which exempt a majority of state and local taxes for a number of years.

Pittsburgh continues to focus on the revitalization of its downtown core, making aesthetic improvements to reestablish it as a regional destination point. With the formation of a Business Improvement District in 1996, the Pittsburgh Downtown Partnership spearheaded improvements in maintenance, safety, and marketing. Currently, the City is in the midst of a planning effort to enhance downtown living and retailing.

Pittsburgh is also continuing to work to make downtown the region's chief entertainment destination. The expansion of the David L. Lawrence Convention Center and the construction of PNC Park and Heinz Field have attracted visitors from the surrounding region and all over the world. The downtown office climate has also benefited from newly constructed operations centers by long-time Pittsburgh companies PNC Bank and Mellon Bank, as well as other new construction by H.J. Heinz, Highmark Blue Cross/Blue Shield, GNC, ALCOA, and Kvaerner Metals.

Over the past decade, the City has implemented an aggressive strategy to rehabilitate valuable riverfront property and to reuse abandoned industrial sites left behind by the dismantling of the steel industry. Through the Urban Redevelopment Authority, the City has acquired land and prepared sites to lay the groundwork for economic development. A variety of technology companies and university researchers have located their operations at the Pittsburgh Technology Center. Through the Urban Redevelopment Authority, the City purchased the 130-acre former LTV South Side Works site in late 1993. The site has been successfully developed into a mixed-use development that includes housing, office space, warehousing and light-industrial space. The University of Pittsburgh Medical Center (UPMC) has finished building an 80,000 square-foot distribution center, and a 45,000-square foot office and laboratory facility called the Pittsburgh Life Sciences Center is under construction. Over 500,000 square feet of office space is either under construction or in the planning stages. The Mon Con/Hot Metal Bridge that once carried molten steel across the Monongahela River has been renovated to allow cars and pedestrians to travel

between the South Side and the Pittsburgh Technology Center on the North Shore of the Monongahela. In addition, residential and commercial developments completed on Washington's Landing in the Allegheny River prove that the strategy of land acquisition and site preparation can be used very effectively as an economic development strategy.

Pittsburgh is also strengthening and revitalizing its neighborhoods, encouraging new housing developments like Crawford Square, Allequippa Terrace and Bedford Dwellings, which are mixed-income-housing units in the Hill District. The idea is to provide both new and existing residents of the City with a higher quality of life. The City is partnering with developers to attract new stores and restaurants back into the neighborhoods, such as a new Shop 'N Save at the Lawrenceville Shopping Center development and a Home Depot and Whole Foods in East Liberty.

The City continues to leverage its rebirth as a hub for the technology industry. The University of Pittsburgh and Carnegie Mellon University lead the way in research of biotechnology, bioengineering, robotics, and information technology. Increases in university research and development, spending is a significant sign that the City's universities are working to commercialize technology developments. This R&D spending will spin off new companies, new jobs and new wealth. During the past 15 years, Pittsburgh has more than doubled its number of technology-driven firms, creating over 1,200 new enterprises. Today, nearly 2,400 high technology firms employ over 90,000 individuals, accounting for roughly nine percent of the total workforce in Greater Pittsburgh. In fact, the Pittsburgh region now ranks in the top ten in the nation in total employment of computer software professionals. Pittsburgh is also the third-largest environmental technology hub in the country. In the aggregate, technology companies have produced over 30,000 new jobs since 1980, sharply offsetting job losses from other industries in the region.

### ***Major Initiatives***

The major initiatives of the City over the past decade include large-scale brownfield redevelopment such as South Side Works and Summerset at Frick Park, neighborhood development projects, housing developments and business development. To date these investments have exceeded \$5 billion in activity, and:

- Redeveloped more than 500 acres of abandoned brownfield sites, increasing taxable market value for the region by more than \$570,000,000;
- Created or retained 20,673 jobs since 1994;
- Provided \$53 million in home improvement loans to help seniors and low income residents maintain and improve their homes over the past ten years; and
- Made 40,136 loans to support the purchase, rehabilitation, and development of housing units throughout the City. The majority of these loans have been to low income and first time homebuyers in low-income neighborhoods.

The following is a summary of selected projects.

### **South Side Works**

- 75% of this former industrial site is developed with another 10% under construction. More than \$220 million in private investment has been generated and 2,000 jobs, 1,420,000 sq. ft. of space, and 354 residential units have been created.
- The City's Urban Redevelopment Authority purchased the site in 1993 after LTV Steel idled the plant, and has secured more than \$100 million in financing and is overseeing the planning and construction of site infrastructure.
- Current local property tax revenues are in excess of \$1.04 million. This number will rise to more than \$7.99 million once the project is completed and the tax increment financing is paid off.



### **Summerset at Frick Park**

- Work continues on the 238-acre former slag dump that is now the site of newly constructed luxury homes in the City of Pittsburgh. The site is currently generating \$846,720 in annual local property tax revenues, and this number will rise to more than \$6.29 million when all three phases of the project are complete.

### **Luna Square Baum Boulevard Development**

- Mixed use \$115,000,000 development along Baum Boulevard will include 148,000 square feet of office space, 58,000 square feet of retail space, and 1,500 space parking garage, two hotels, 70 residential units, and a movie theater.

### **Giant Eagle Centre Avenue Expansion**

- Approximately 120 upscale apartments will be constructed on top of the newly expanded store, and 350 additional parking spaces will be created.

### **Downtown Housing**

- 15 downtown housing developments have been financed to date, resulting in the construction of 585 units to date, with another 235 units underway.
- 5<sup>th</sup> and Forbes corridor efforts are focused on housing development with the goal of increasing demand for retail as population grows.

### **Neighborhood Development**

#### East Liberty

- Demolition of three severely deteriorated housing developments will be completed in spring 2005. Residents have been relocated to nearby housing and given the option to return to the new development. 300 new rental and for-sale units are planned.
- Introduction of Home Depot and Whole Foods and renovation of the historic Liberty Building have generated significant interest in the neighborhood's business district. Renovation plans for the 13-story Highland Building, in the core of the neighborhood's commercial district, are underway.

#### Federal Hill

- 60 units of housing (44 market-rate, for sale units and 16 rental units) are planned along Federal Street in Central Northside.
- Housing at Federal Hill will serve as an anchor for redevelopment efforts in the Federal North area.

#### Hazelwood

- 27 deteriorated properties have been acquired, cleared, designated as part of the State's tax-free Keystone Opportunity Zone, and are currently being marketed for redevelopment in the neighborhood's business district. Three buildings are under agreement for sale.

#### Hill District

- 75 formerly tax delinquent and/ or publicly owned properties have been acquired for redevelopment. The City is aggressively recruiting a grocery store to meet neighborhood needs.
- 2,200 new housing units have been constructed and/ or renovated in the last 10 years throughout the neighborhood - including subsidized and market rate apartments, and for sale units selling for \$150,000 to \$250,000.

#### Lawrenceville

- The City is providing assistance and aggressively recruiting developer interest for several commercial and market-rate housing developments along Butler Street, and in the blocks surrounding the CMU Robotics Center.

#### Strip District

- The City is working with the Strip District's community development group to explore the feasibility of converting a portion of the publicly owned Produce Terminal into a public market house.

#### **Neighborhood Business District Improvements**

- The City recently funded 22 Pittsburgh neighborhoods for the growth and improvement of their shopping districts through the Mainstreets Pittsburgh program.
- Over the past four years more than 250 buildings have been improved and 450 new businesses attracted, resulting in 1,600 new jobs. Total investment in the Mainstreets neighborhood districts during this period has exceeded \$48 million.

#### **Home Improvement and Home Ownership Activities**

- More than \$12 million towards home improvement and home ownership loans to help 287 seniors and low-income residents maintain, improve and purchase their homes was provided in 2003. These efforts are vital in maintaining sound and well-maintained housing stock in the City of Pittsburgh.

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Source: Urban Redevelopment Authority of Pittsburgh.

### ***Building Activity***

Total construction value within the City in 2003 was \$636 million. Over 8% of the construction value represented new housing construction. New commercial construction represented almost 35% of the total value. The remaining percentage represented construction value of extensions and alterations of existing structures. Table D-1 below sets forth the number and dollar value of residential and commercial building permits issued in the City in the years 1994 to 2003:

**TABLE D-1**  
**City of Pittsburgh**  
**Number and Value of Building Permits, 1994-2003**

Year	Number of Permits Issued	Dollar Value (In thousands)
1994	3,148	201,982
1995	3,019	158,575
1996	2,793	250,315
1997	2,490	193,471
1998	2,405	388,569
1999	2,271	414,859
2000	2,283	827,764
2001	2,239	531,131
2002	2,216	344,223
2003	1,445	636,161

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Source: City of Pittsburgh, Bureau of Building Inspection.

## ECONOMY

### *Employment*

Over the past two decades, the City's economy has become more diversified with increasing reliance on the healthcare, education and financial industries.

**TABLE D-2**  
**City of Pittsburgh**  
**25 Largest Pittsburgh Area Employers**

	<b>Employees</b> <b>(as of 12/31/04)</b>
University of Pittsburgh Medical Center.....	26,664
U.S. Government.....	19,404
Commonwealth of Pennsylvania.....	13,335
West Penn Allegheny Health System.....	10,753
University of Pittsburgh.....	10,133
US Airways Group Inc.....	6,994
PNC Financial Services Group, Inc.....	6,895
Mellon Financial Corp.....	6,125
Wal-Mart Stores Inc.....	6,000
Giant Eagle Stores, Inc.....	5,703
Allegheny County.....	5,480
Highmark Inc.....	5,416
Pittsburgh Board of Education.....	5,191
United States Steel Corp.....	5,000
Eat'n Park Hospitality Group Inc.....	4,523
Carnegie Mellon University.....	3,910
Allegheny Technologies Inc.....	3,800
Westmoreland-Latrobe Health Partners.....	3,700
City of Pittsburgh.....	3,550
Pittsburgh Mercy Health System.....	3,351
Port Authority of Allegheny County.....	3,102
SUPERVALU Inc.....	3,000
Westinghouse Electric Co.....	3,000
Heritage Valley Health System.....	2,869
PPG Industries Inc.....	2,800

Source: Pittsburgh Business Times

**TABLE D-3**  
**City of Pittsburgh**  
**Total Number of Jobs in the City**  
**1989-2004**

1989	.....	307,200
1990	.....	319,600
1991	.....	327,600
1992	.....	318,404
1993	.....	314,758
1994	.....	314,525
1995	.....	311,101
1996	.....	310,000
1997	.....	305,427
1998	.....	319,004
1999	.....	323,600
2000	.....	325,318
2001	.....	310,950
2002	.....	315,322
2003	.....	316,800
2004	.....	309,009

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Source: City of Pittsburgh Tax Files. Estimated based on Occupational Privilege Tax Receipts.

**TABLE D-4**  
**Resident Civilian Labor Force Data**  
**City, PMSA/MSA, Commonwealth, U.S.**  
**1999-2003**

<b>Labor Force</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
City of Pittsburgh	159,400	159,459	162,000	162,275	164,100
Pittsburgh PMSA/MSA <sup>(1)</sup>	1,153,400	1,155,400	1,175,900	1,211,200	1,184,900
Pennsylvania	5,996,000	5,971,900	6,073,000	6,289,800	6,170,000
U.S.	139,368,000	140,863,000	141,815,000	144,863,000	146,510,000
<b><u>Employment</u></b>					
City of Pittsburgh	154,000	152,981	155,500	154,842	156,100
Pittsburgh PMSA/MSA <sup>(1)</sup>	1,103,300	1,106,500	1,124,800	1,146,100	1,119,100
Pennsylvania	5,707,000	5,722,000	5,786,000	5,933,900	5,826,100
U.S.	133,488,000	135,208,000	135,073,000	136,485,000	137,736,000
<b><u>Unemployed</u></b>					
City of Pittsburgh	5,400	6,478	6,500	7,975	8,100
Pittsburgh PMSA/MSA <sup>(1)</sup>	50,100	47,400	51,100	65,100	65,800
Pennsylvania	262,000	249,900	287,000	355,800	343,900
U.S.	5,880,000	5,655,000	6,742,000	8,378,000	8,774,000
<b><u>Unemployment Rate (%)</u></b>					
City of Pittsburgh	3.4%	4.1%	4.0%	4.9%	4.9%
Pittsburgh PMSA/MSA <sup>(1)</sup>	4.3%	4.1%	4.3%	5.4%	5.6%
Pennsylvania	4.4%	4.2%	4.7%	5.7%	5.6%
U.S.	4.2%	4.0%	4.8%	5.8%	6.0%

(1) The figures for the years 1999 through 2003 reflect the Pittsburgh MSA, which includes the counties of Allegheny, Beaver, Butler, Fayette, Washington and Westmoreland.

Source: Pennsylvania Department of Labor and Industry, Bureau of Research and Statistics.

### ***Banking Institutions***

The Pittsburgh MSA contains 48 banking institutions with combined total assets of \$119,536,364,000. Major banks, which are headquartered in the City, include Mellon Bank, N.A. and PNC Bank, National Association. Each has full service capability and extensive overseas operations.

Pittsburgh is a branch office city of the Cleveland District of the Federal Reserve System.

**TABLE D-5**  
**City of Pittsburgh**  
**Commercial Banks**  
**Ranked by Total Assets**

**Total Assets**  
**(as of December 31, 2004)**

PNC Bank National Association.....	\$ 62,036,533,000
Citizens Bank of Pennsylvania.....	26,738,196,000
Mellon Financial Corp.....	20,838,836,000
National City Bank of Pennsylvania.....	13,496,752,000
Sky Bank.....	11,844,146,000
Northwest Savings Bank.....	5,407,582,000
Dollar Bank, FSB.....	5,117,796,000
First Commonwealth Bank.....	5,106,174,000
First National Bank of Pennsylvania.....	4,385,679,000
S&T Bank.....	2,849,645,000

Source: 2005 Pittsburgh Business Times

## EDUCATION

### *Colleges and Universities*

**TABLE D-6**  
**Pittsburgh Area**  
**Colleges and Universities**  
**(Ranked by 2004 Enrollment)**

	<b>Total Enrollment</b>	
	<b><u>Full-Time</u></b>	<b><u>Part-Time</u></b>
University of Pittsburgh (main campus)	21,562	5,233
Indiana University of Pennsylvania	11,991	1,877
Community College of Allegheny County (all campuses)	7,903	11,352
Slippery Rock University	7,170	830
Clarion University	5,709	1,342
Duquesne University	7,880	1,821
Carnegie Mellon University	8,271	1,485
California University of Pennsylvania	5,190	1,247
University of Pittsburgh at Johnstown	2,800	300
Robert Morris University	2,750	2,066

Source: 2005 Pittsburgh Business Times

### *Vocational-Technical Schools*

Vocational-technical schools in the area provide a broad array of training in a variety of fields. Vocational-technical training is offered by both proprietary schools and by the public school systems. There are approximately 20 proprietary vocational schools and approximately 12 public vocational schools in the City and surrounding areas.

## TRANSPORTATION

### *Air Transportation*

The Pittsburgh International Airport (“PIA”) serves the region. The 2.1 million square foot airport, located in Allegheny County 16 miles from the downtown area accommodates nearly 20 million travelers in nearly 450,000 aircraft operations per year.

The state-of-the-art user-friendly terminal complex located between the runways opened October 1, 1992, replacing the 40-year old Main Terminal Building. Built with the latest technologies and designed for incremental expansion to meet forecasted growth, the entire complex is able to expand with relative ease. Currently, the terminal building consists of 69 domestic gates, 6 international gates, and 25 commuter gates.

Passenger conveniences include an underground people mover system, moving walkways, easy-to-read signs and direct access to 17,420 parking spaces. The X-shaped airside terminal allows connecting passengers access to all 75-jet gates without changing levels or terminals. The airside terminal also houses a retail area featuring more than 60 local, national, and international retailers and restaurateurs required to charge prices no higher than those charged at their off-airport locations.

US Airways has terminated the hub status of the Pittsburgh International Airport. US Airways has already eliminated all international flights departing from PIA to Great Britain and Germany. Recently, US Airways has been under financial distress and has filed for bankruptcy protection under Chapter 11 pursuant to the bankruptcy code. The outcome of this proceeding could have an impact on future US Airways flight capacity at PIA. In the fourth quarter of 2004, US Airways downgraded Pittsburgh from a hub city to a “focus city.” While the economic effect of the airline’s problems may have a negative impact on southwestern Pennsylvania, US Airways is not a significant employer of Pittsburgh residents.

Capacity is one of PIA’s most valuable assets. PIA is within a 90-minute flight of 70% of North America’s population. The OAG (Official Airline Guide) Worldwide recently listed PIA on its short list of the world’s best airports for the third year in a row. Currently, PIA ranks 26th in the United States in passenger volume. Last year, 3 low-cost carriers implemented major flight routes through PIA. The trends in passenger volume at the Pittsburgh International Airport, from 1994 through 2003 are set forth in Table D-7.

**TABLE D-7**  
**City of Pittsburgh**  
**Passenger Volume Trend**  
**Pittsburgh International Airport**

<u>Year</u>	<u>Passenger Volume</u>	<u>Percentage Change Over Prior Year</u>
1994.....	19,490,709	5.7
1995.....	20,012,251	2.7
1996.....	20,533,660	2.6
1997.....	20,759,723	1.1
1998.....	20,556,075	(1.0)
1999.....	18,785,728	(8.6)
2000.....	19,816,511	5.5
2001.....	19,945,246	0.6
2002.....	18,027,165	(9.6)
2003.....	14,266,984	(20.9)

Source: Allegheny County Airport Authority



The following airlines serve Pittsburgh International Airport:

**Major International Carriers**

Air Canada  
Air Tran Airways  
America West  
American  
Continental  
Delta  
Northwest  
Southwest  
United  
US Airways

**Commuter Carriers**

Air Midwest (US Airways Express)  
Allegheny Airlines (US Airways Express)  
American Eagle  
ATA  
Atlantic Southeast  
Chautauqua (US Airways Express/American Eagle)  
Colgan Air (US Airways Express)  
ComAir (Delta Connection)  
Continental Express  
Independence Air  
Mesa Airlines (US Airways Express)  
Mesaba Airlines  
Mid Atlantic Airways (2003)  
Piedmont (US Airways Express)  
PSA (US Airways Express)  
Shuttle Airlines  
Skyway Airlines  
Trans States Airlines (US Airways Express)  
United Express  
USA 3000

Source: Allegheny County Airport Authority

Allegheny County Airport is the largest service airport in Western Pennsylvania. It is the home of over 160 aircraft and 3 flight schools.

***Water Transportation***

The Port of Pittsburgh on the Allegheny, Monongahela and Ohio Rivers, is the largest inland port in terms of tonnage and the second busiest in the country, and provides year round facilities for shipments to and from the South and Midwest regions of the United States. Shippers at the Port of Pittsburgh may ship to any port in the world by containerization, lash or seabee barge carriers.

The Port of Pittsburgh supports over 200 publicly- and privately-owned terminals and barge industry service suppliers. The public terminals are equipped to accommodate such bulk commodities as coal, sand, gravel, petroleum products, chemicals, iron, and steel products, and finished products of all types. Other goods which move on the City's rivers include fertilizer, machinery, steel scrap, iron ore, billets, salt, synthetic rubber, lumber products and ferrous alloys.

Twelve major barge lines operate on Port of Pittsburgh waters as common carriers. These barge lines utilize both private- and public-use terminals. A number of regulated contract carriers and other private carriers for hire also operate extensively into and out of the Port of Pittsburgh.

Water transport equipment currently in service includes open hopper barges, covered dry cargo barges, tank and deck barges. Typical tows move from the Port of Pittsburgh to St. Louis in about seven days. Specialized tows, such as unit tows for bulk liquids, cover the Port of Pittsburgh to New Orleans route in eight to twelve days.

Complete facilities for construction and repair of riverboats of all types are in operation in the Port of Pittsburgh.

### ***Rail Service***

There are numerous trunk, short-line, switching and connecting railroads serving the region. It is estimated that ten percent of all U.S. rail freight originates or passes through the nine-county region surrounding the City. On-line trunk railroads serving the SMSA include:

Amtrak  
Bessemer and Lake Erie Railroad  
CSX  
Norfolk and Southern Railroad  
Pittsburgh & Lake Erie Railroad

### ***Motor Freight Service***

The area is served by over 250 interstate and local trucking firms, 26 freight forwarders, and 81 household goods movers. The City is a strategically located transportation center, with overnight access by motor freight to the major markets of the Northeast and Midwest.

### ***Mass Transit***

The Port Authority of Allegheny County (PAT) has been servicing Allegheny County plus minor portions of Armstrong, Beaver, Washington, and Westmoreland Counties since March 1, 1964. PAT provides transportation via buses, light rail transit, inclines, and the ACCESS Paratransit System.

PAT owns approximately 1,200 revenue vehicles. PAT's average annual ridership is 68 million with an average number of weekday passengers of 230,000.

### ***Passenger Bus Service***

Greyhound Bus Lines provides regularly scheduled interstate bus service to the City. PAT provides local bus, streetcar and rail service. In addition, a variety of local bus companies provide intrastate, commuting, and charter services.

## **UTILITIES**

### ***Electricity***

The City relies primarily upon coal as an energy source and is not heavily dependent upon oil and gas for the production of electricity. Some nuclear energy is used. In the region, the currently installed electric power generation capacity is 80% coal, 15% nuclear and 5% oil, the latter used mostly for peak capacity.

The electric power requirements of residential, commercial and industrial users in the City are provided primarily by the Duquesne Light Company which serves more than 580,000 customers in Southwestern Pennsylvania and uses more than 45,000 miles of overhead lines, 250,000 utility poles, and 103,000 transformers. The Company is subject to regulation by the Pennsylvania Public Utilities Commission.

### ***Natural Gas***

The City's suppliers of natural gas are the Equitable Gas Company, Dominion Peoples, and Columbia Gas of Pennsylvania. Together they serve 890,000 customers in the 10 county region of Southwestern Pennsylvania. All three are investor- owned utilities whose service areas cover large portions of Pennsylvania and neighboring states

### ***Water and Sewer***

The Pittsburgh Water and Sewer Authority provides water service to the majority of water customers within the City and sewage collection service to the entire City. The climate and river valleys within the City region provide abundant water at reasonable cost.

Sewage treatment service is provided by Alcosan (Allegheny County Sanitary Authority). Its service area includes the City, 82 neighboring municipalities in the County and parts of communities in Washington and Westmoreland Counties. Alcosan serves an area of 225 square miles with a population of about 900,000.

## **DEMOGRAPHIC DATA**

### **Population**

**TABLE D-8  
Population  
City, County, PMSA  
1970-2000**

	<u><b>City of Pittsburgh</b></u>		<u><b>Allegheny County<sup>(1)</sup></b></u>		<u><b>Pittsburgh SMSA<sup>(2)</sup></b></u>	
	<u>Population</u>	<u>Percent Change</u>	<u>Population</u>	<u>Percent Change</u>	<u>Population</u>	<u>Percent Change</u>
1970	520,089	N/A	1,084,899	N/A	796,229	N/A
1980	423,938	(18.5%)	1,026,147	(5.4%)	813,809	2.2%
1990	369,879	(12.8%)	966,570	(5.8%)	720,556	(11.5%)
2000	334,563	(9.5%)	947,103	(2.0%)	1,077,029	33.0%

(1) Population of the County, excluding residents of the City.

(2) Population of the PMSA, excluding residents of the County.

Source: U.S. Census.

## Housing

Compared to national averages and other cities of comparable sizes, housing in Pittsburgh is very affordable. According to the U.S. Census, Pittsburgh has the third most affordable housing in the nation. The local housing affordability has consistently made the city one of the top five places to live in America according to the Places Rated Almanac.

Detached single-family housing continues to dominate residential construction in the County, although in Pittsburgh, apartment and townhouse construction predominates.

Because Pittsburgh was almost completely built up by 1950, more than 75% of the housing stock in the City is over forty years old and 50% is over sixty years old. The housing stock of the City, County, SMSA and Commonwealth is characterized in Table D-9 on the following page:

**TABLE D-9**  
**City of Pittsburgh**  
**City, County, PMSA, and Commonwealth**  
**Characteristics of Housing Units Comparison**

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Total Housing Units:				
City of Pittsburgh.....	189,840	179,191	170,159	163,366
County of Allegheny.....	533,520	570,970	580,738	583,646
Pittsburgh PMSA .....	789,771	874,050	879,811	966,500
Pennsylvania .....	3,924,757	4,597,412	4,938,140	5,249,750
Percent Owner-Occupied:				
City of Pittsburgh.....	50.3%	51.2%	52.3%	52.1%
County of Allegheny.....	64.8%	61.9%	66.2%	67.0%
Pittsburgh PMSA .....	67.8%	69.0%	72.6%	71.3%
Pennsylvania .....	68.0%	64.2%	70.6%	71.3%
Median Value of Owner-Occupied Housing:				
City of Pittsburgh.....	\$12,500	\$31,500	\$41,200	N/A <sup>(1)</sup>
County of Allegheny.....	16,000	43,300	57,100	84,200
Pittsburgh PMSA .....	15,300	42,800	51,800	N/A <sup>(1)</sup>
Pennsylvania .....	13,600	39,100	69,700	97,000
Number of Persons per Housing Unit:				
City of Pittsburgh.....	2.8	2.4	2.5	2.2
Total County Housing Units:				
Percent of City of Pittsburgh	35.5%	31.4%	29.3%	28.0%

Source: U.S. Census of Housing.

(1) The 2000 information is not currently available.

From 1970 to 2000 the number of housing units in the County increased by 9.4%, while the number of housing units in the City decreased by 13.9%. Over the same period, the number of persons per housing unit in the City decreased 21% and the population declined by 35.7%.

**TABLE D-10**  
**County of Allegheny**  
**Average Sale Price of Residential Property**  
**1994 to 2003**  
**(Market Transactions)**

<u>Year</u>	<u>County of Allegheny</u>
1994.....	\$105,399
1995.....	105,547
1996.....	106,785
1997.....	111,831
1998.....	116,064
1999.....	124,716
2000.....	125,525
2001.....	129,525
2002.....	134,463
2003.....	140,438

Source: West Penn Multi-List.

The Redevelopment Authority provides low-cost home improvement loans to low- and moderate-income families utilizing Community Development Block Grant ("CDBG") monies, Commonwealth and local funds, and has issued its bonds for this purpose. The Redevelopment Authority also uses CDBG funds to subsidize the interest rate on rehabilitation loans made by private lenders to owners of residential properties and on property rehabilitation loans made by private lenders to businesses in designated neighborhood retail districts. The Redevelopment Authority has functioned as a loan originator under U.S. Department of Housing and Urban Development ("HUD") programs in which capacity the Redevelopment Authority contracts with HUD to originate twenty-year housing rehabilitation loans or rehabilitation grants funded by HUD.

The Redevelopment Authority currently has in various stages of execution redevelopment projects funded in part by the federal government, the Commonwealth and the City.

## INCOME

### Per Capita Income

**TABLE D-11**  
**Pittsburgh PMSA, County and Commonwealth**  
**Per Capita Personal Income**

	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>% Change 1980-2000</u>
Pittsburgh PMSA.....	\$10,662	\$19,906	\$29,587	+64.0
Allegheny County.....	11,402	22,382	33,474	+65.9
Pennsylvania.....	10,151	19,823	29,539	+65.6

Source: United States Department of Commerce, Bureau of Economic Analysis.

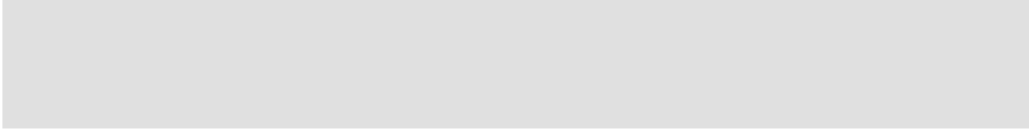
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## **APPENDIX E**

### **CONSULTING ENGINEER'S REPORT**

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Pittsburgh Water and Sewer Authority  
Allegheny County, Pennsylvania

**Engineer's Report in Support of the 2005 Capital  
Improvements Bond Issue**

May 2005

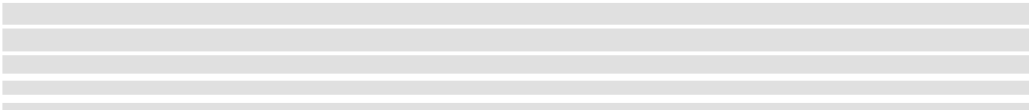
Prepared by: Diane L. Miller, P.E.

Approved by: David M. Meredith, P.E.

Project No.: 03-3548-R-02



250 Airside Drive - Moon Township, PA 15108  
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**ENGINEER'S REPORT IN SUPPORT OF THE 2005 CAPITAL  
IMPROVEMENTS BOND ISSUE  
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## **ENGINEER'S REPORT IN SUPPORT OF THE 2005 CAPITAL IMPROVEMENTS BOND ISSUE**

### ***EXECUTIVE SUMMARY***

The purpose of this report is to provide a brief description of the history of the Pittsburgh Water and Sewer Authority, a general description of the Authority's facilities, an overview of the financial condition of the Authority, and a description of the project being financed through the proceeds of the 2005 Capital Improvements Bond Issue.

The capital improvements that will be funded under the 2005 Capital Improvements Bond Issue are divided into the following major tasks:

- Collection and Conveyance System Improvements
- Pumping and Wastewater Treatment Facility Capital Improvements

Our opinion of probable project costs for the proposed capital improvements under the 2005 Capital Improvements Bond Issue is \$50 million. We anticipate that this portion of the Authority's capital improvements program will be completed within two to three years from the implementation of the program.

The Authority has routinely adopted user fees for the water and sewer systems based on a review of previous years' revenues, expenses, and cash balance. We have performed an analysis that indicates that the Authority has sufficient operating revenue and reserves to balance the proposed budget for 2005. The analysis performed indicates that an 8 percent rate increase will be required in 2007 to cover future operating costs, including debt service coverage factors.

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## **ENGINEER'S REPORT IN SUPPORT OF THE 2005 CAPITAL IMPROVEMENTS BOND ISSUE**

### ***PURPOSE***

The purpose of this report is to provide a brief description of the history of the Pittsburgh Water and Sewer Authority (Authority), a general description of the existing Authority's facilities, an overview of the financial condition of the Authority, and a description of the projects being financed through the proceeds of the 2005 Capital Improvements Bond Issue.

### ***HISTORY OF THE AUTHORITY***

Operations of The Pittsburgh Water and Sewer Authority through December 31, 1994 were carried out in accordance with the Lease and Management Agreement between the Authority and the City of Pittsburgh, dated March 29, 1984. Pursuant to this agreement the City provided services necessary to operate the water and sewer systems to the Authority with the Authority reimbursing the City for all expenses actually incurred and expended by the City.

The Capital Lease Agreement and Cooperation Agreement between the Authority and City as authorized in Resolution No. 47 of 1995 terminated the relationship between the City and the Authority with respect to operation and maintenance of the water and sewer systems. The Cooperation Agreement provides for the City to render certain services to the Authority as defined in the agreement. The Agreement also provides for the basis of payment for such services to be rendered by the City. As of January 1, 1995 all positions in the City Water Department and certain positions in the Water and Sewer Division of the Department of Engineering and Construction were eliminated from the City of Pittsburgh budget and similar positions were created and filled by the Authority.

### ***GENERAL DESCRIPTION OF THE AUTHORITY SYSTEM***

#### ***The Water System***

---

The water supply and distribution system consists of a 117 million gallon per day (MGD) surface water treatment plant that was placed into service in 1969, 1,200 miles of water mains and service lines, 30,000 valves, 8,000 fire hydrants, 9 pumping stations, 5 reservoirs, and 11 water storage tanks. The total storage capacity of the reservoirs and tanks is approximately 455 million gallons, or the equivalent of 3 to 5 days of average water consumption.

The sole source of raw water is the Allegheny River. The PA Department of Environmental Protection has issued a Water Allocation Permit to the Authority which allows for the withdrawal of up to 100 MGD from the river. In 2004, average water withdrawal was approximately 70.5 MGD and maximum water withdrawal was approximately 99 MGD.

The water system currently provides potable water and water for fire protection to approximately 83,000 residential, commercial, industrial, and public customers within the limits of the City of Pittsburgh. The Authority also provides water to several adjacent municipalities. Approximately 22,000 customers in the southern and western sections of the City are served by either Pennsylvania American Water Co. or the West View Water Authority, and a small number of customers in the eastern end of the City are served by the Wilkesburg-Penn Joint Water Authority.

### ***The Sewer System***

---

The sewage collection system is part of a regional system that provides service to about 550,000 people, nearly 325,000 of whom live within the City limits. The total drainage area serviced by the regional system is approximately 80 square miles. The City of Pittsburgh comprises about 55 square miles, or nearly 70 percent of the total drainage area. The sewer system is an extensive network of approximately 1,400 miles of sewer lines and 4 sewage pump stations. The average age of sewers within the City is 60 to 70 years, with some portions nearing 150 years of age.

The sewer system conveys wastewater to Allegheny County Sanitary Authority (ALCOSAN) interceptors for conveyance to the ALCOSAN Sewage Treatment Plant along the Ohio River.

The sewer system was designed so that during wet weather a portion of the collected stormwater and diluted wastewater is discharged to natural watercourses by diversion chambers located throughout the sewer system and at connections to the ALCOSAN interceptor system. The sewer system is in satisfactory operating condition and has adequate capacity for dry weather flows; however, wet weather events have caused the sewer system to overflow, bypass, and flood on occasion.

### ***PROPOSED CAPITAL IMPROVEMENTS***

The primary objectives of the Capital Improvements Program are to ensure uninterrupted service to the Authority's consumers and to enhance the systems' capabilities. The Program was designed to maintain a satisfactory level of service to the water and sewer systems users, to improve operating efficiencies, and to address future requirements. The



current program was implemented in 1984 and has resulted in major improvements, additions and rehabilitation to many components of the water and sewer systems.

In order to ensure that a continued supply of safe drinking water and adequate sewer service are provided to the Authority's current and future users, and also to address future demands on both the water and sewer systems, additional funding is required. In determining the future funding requirements, the following factors and conditions were considered:

- Identified necessary improvements that are not currently funded under the Capital Improvements Program.
- Rehabilitation and/or replacement of existing facilities that have exceeded their useful lives. A significant portion of the Authority's facilities, including the water system pump stations, water storage facilities, and the bulk of the water distribution system is over 70 years old. The majority of the sewer system is at least as old, and in some areas was constructed nearly 150 years ago. Due to the age of these systems, an annual program to rehabilitate and/or replace a portion of such facilities has been established and must be maintained. In addition, changing development conditions within various service areas are increasing water demands and causing increased sewage flows that stress distribution and collection systems' capacities.
- Improvements required for sale of water to communities within the region. The Authority's water treatment plant is capable of providing significantly more water than currently being used by its existing consumers. Selling this available water to regional communities can be a source for increasing Authority revenues. To realize this potential revenue, the Authority may be required to construct water lines or improve existing pumping facilities to serve some of the regional communities.
- Water and sewer system improvements required to serve planned City Capital Improvement Projects, Sports and Exhibition Authority (S&EA) Projects, and Urban Redevelopment Authority (URA) planned redevelopment projects. Under the City of Pittsburgh Capital Improvement Program, water and sewer facilities within street rights-of-way must be replaced when major street reconstruction is undertaken. The Pittsburgh Urban Redevelopment Authority (URA) has planned a number of commercial and residential redevelopment projects in various areas of the City. Improvements to the Authority's water and sewer systems are typically required to serve these redevelopment projects.

- Improvements required under current and anticipated safe drinking water standards. Current and anticipated future drinking water standards, promulgated through regulations under the Pennsylvania Safe Drinking Water Act (35 P.S. 721.4), will require that process modifications be made at the Authority's water treatment plant.
- Improvements required under current NPDES permit discharge regulations. At issue is disposal of backwash water from the filter cleaning process.
- Implementation of Combined Sewer Overflow Controls as required by the U.S. Environmental Protection Agency (EPA), including sewer system investigation and mapping. Capital improvements are expected to be required for both the sewage collection and sewage conveyance systems. The U.S. Environmental Protection Agency (EPA) has adopted regulations regarding overflows from combined sewers during events, which result in the discharge to receiving water of untreated sanitary sewage. These combined sewer overflows (CSOs) contain pollutants that are present in domestic and industrial wastewaters, as well as those in the urban storm water runoff that enter the combined Sewer System. The EPA regulations require owners of any sewer system having CSOs to acquire National Pollutant Discharge Elimination System (NPDES) discharge permits for each site. Essentially all of the Authority sewers are combined sewers and there are 194 permitted CSOs within the system. The most efficient and cost effective method of eliminating or controlling the CSOs is being evaluated. The Authority is required over the next several years to expend significant funds to inventory and monitor combined sewer overflows and to evaluate the impact on receiving streams. In addition to routine investigations of the sewer collection and conveyance system, the City of Pittsburgh and the Authority have entered into an Consent Order and Agreement (the Order) with the Pennsylvania Department of Environmental Protection (DEP) and Allegheny County Health Department (ACHD). The Order requires the systematic investigation, mapping, and repair of the sewer collection system.

Based upon the previously noted factors and conditions and evaluations of the existing Water and Sewer Systems, a proposed Capital Expenditure Plan was developed that addresses the identified and anticipated Capital Improvement needs of the Authority over the next five years (from 2005 through 2009). The total Plan is included in Exhibit A to this report.

This study addresses the proposed Capital Improvements scheduled to be implemented during the period from mid-2005 through mid-2007 totaling \$50,000,000. Additional

funding for the Capital Expenditure Plan includes approximately \$13,000,000 remaining from the existing 2002 Bond Issue as of January 1, 2005 and a portion of a future bond issue anticipated to be required in 2007.

### **PROJECT COST SUMMARY**

An opinion of probable project costs for the proposed capital improvements under the 2005 Capital Improvements Bond Issue are summarized within Table 1.

The project costs within Table 1 include construction, design engineering, general project services, right-of-way acquisition, legal and administrative costs, as well as project contingency.

**Table 1**  
**Project Descriptions and Probable Costs**

	Project Description	2005 Project Cost	2006 Project Cost	2007 Project Cost	Total Project Cost
<b>A. Water Projects</b>					
1	Water Treatment Plant	\$991,300	\$2,549,800	\$3,516,500	\$7,057,500
2	Water Pumping and Storage	250,000	1,178,800	2,771,300	4,200,000
3	Transmission and Distribution Mains	240,000	1,990,000	1,677,500	3,907,500
4	Vehicles and Rolling Stock	250,000	250,000	250,000	750,000
5	Miscellaneous	700,000	750,000	1,250,000	2,700,000
Subtotal		\$2,431,300	\$6,718,500	\$9,465,300	\$18,615,000
<b>B. Wastewater Projects</b>					
1	Wastewater Collection System	\$5,490,000	\$9,732,500	\$7,797,500	\$23,020,000
2	Wastewater Pumping	330,000	1,075,000	935,300	2,340,300
3	Vehicles and Rolling Stock	250,000	150,000	150,000	550,000
4	Miscellaneous	630,000	780,000	780,000	2,190,000
Subtotal		\$6,700,000	\$11,737,500	\$9,662,800	\$28,100,300
<b>C. Combined Projects</b>					
1	Information Technology	\$415,400	\$523,100	\$179,500	\$1,118,000
2	Highway/Private/City/Other Projects	0	2,701,500	2,887,700	5,589,200
3	Urban Redevelopment Authority (URA)	5,900,000	6,120,000	5,240,000	17,260,000
4	Sports and Exhibition Authority (S&EA)	74,600	0	0	74,600
Subtotal		\$6,390,000	\$9,344,600	\$8,307,200	\$24,041,800
<b>TOTAL</b>		<b>\$15,521,300</b>	<b>\$27,800,600</b>	<b>\$27,435,300</b>	<b>\$70,757,000</b>

### ***PROJECT SCHEDULE***

We anticipate that all of the capital improvements projects funded within the 2005 Capital Improvements Bond Issue will be completed within 3 years from implementation.

### ***REVENUE AND EXPENSE PROJECTIONS***

A projection of operating revenues has been made based on a review of the historical revenues and the anticipated revenues under the current rate schedule in effect.

The projection of operating expenses has been made based on a review of the historical expenses and the anticipated level of operations during the projection period (2005 through 2009). The forecasted operating expenses for the study period (2005 through 2009) were based on using 2003 and 2004 operating results and the 2005 Budget adopted at the Authority Board's meeting of December 17, 2004.

Projections of revenues and expenses are shown in Table 2.

**Table 2**  
**2003 Actual, 2004 Actual, and 2005 Budgeted Revenues and Expenses**

	<b>2003 Actual</b>	<b>2004 Actual</b>	<b>2005 Budgeted</b>	<b>2006 Projected</b>	<b>*2007 Projected</b>	<b>2008 Projected</b>	<b>2009 Projected</b>
<b>Operating Revenues</b>							
Collections	\$63,876,009	\$100,426,470	\$115,680,000	\$116,836,800	\$126,183,744	\$127,445,581	\$128,720,037
Capital Reimbursement for Engineering	1,185,600	1,021,300	1,400,000	1,200,000	1,212,000	1,224,120	1,236,361
Tap Fee Collections	872,081	1,240,563	800,000	900,000	925,000	930,000	950,000
Other Collections	866,803	499,735	231,740	300,000	300,000	300,000	325,000
Subtotal	\$66,800,493	\$103,188,067	\$118,111,740	\$119,236,800	\$128,620,744	\$129,899,701	\$131,231,398
Less Customer Refunds	-497,667	-2,155,412	-500,000	-500,000	-500,000	-500,000	-500,000
Net Collections	\$66,302,826	\$101,032,655	\$117,611,740	\$118,736,800	\$128,120,744	\$129,399,701	\$130,731,398
Interest Earnings	1,119,135	3,131,867	1,712,800	2,000,000	2,020,000	2,040,200	2,060,602
Pennvest Loan Proceeds	940,045	9,074,128	1,300,000	-	-	-	-
<b>Total Operating Revenues</b>	<b>\$68,362,006</b>	<b>\$113,238,650</b>	<b>\$120,624,540</b>	<b>\$120,736,800</b>	<b>\$130,140,744</b>	<b>\$131,439,901</b>	<b>\$132,792,000</b>
<b>Operating Expenses</b>							
Direct Operating	\$26,529,529	\$29,556,527	\$32,375,972	\$33,023,491	\$33,683,961	\$34,357,640	\$35,044,793
Cooperation Agreement	7,150,000	7,150,000	7,150,000	7,150,000	7,150,000	7,150,000	7,150,000
Other Operating	7,947,124	28,153,576	41,300,000	42,000,000	42,840,000	43,696,800	44,570,736
Capital Expenditures	1,300,103	10,912,097	1,300,000	-	500,000	1,000,000	1,500,000
Debt Service	36,183,623	37,744,898	39,857,790	41,771,865	42,999,775	45,088,900	46,335,613
<b>Total Operating Expenses</b>	<b>\$79,110,381</b>	<b>\$113,517,098</b>	<b>\$121,983,762</b>	<b>\$123,945,356</b>	<b>\$127,173,736</b>	<b>\$131,293,340</b>	<b>\$134,601,142</b>
<b>Unrestricted Operating Cash (Beginning)</b>	<b>\$31,643,087</b>	<b>\$20,894,712</b>	<b>\$20,616,264</b>	<b>\$19,257,042</b>	<b>\$16,048,486</b>	<b>\$19,015,493</b>	<b>\$19,162,054</b>
<b>Unrestricted Operating Cash (Ending)</b>	<b>\$20,894,712</b>	<b>\$20,616,264</b>	<b>\$19,257,042</b>	<b>\$16,048,486</b>	<b>\$19,015,493</b>	<b>\$19,162,054</b>	<b>\$17,352,912</b>

\*Assumes 8 percent rate increase effective January 1, 2007

Currently, the Authority carries forward unrestricted operating cash into the next fiscal year. Current Authority practices include maintaining an unrestricted operating cash balance of \$20 million. Based upon revenue and expense projections through 2009, the Authority will need to increase user fees at some point in 2006. Table 2 includes a projected rate increase of 8 percent effective January 1, 2007 to maintain the cash balance near \$20 million in 2007.

## **PROPOSED BOND ISSUE**

### ***Series 2005 First Lien Water and Sewer Revenue Bonds (the “2005 Bonds”)***

---

The Pittsburgh Water and Sewer Authority proposes to issue Series 2005 First Lien Water and Sewer Revenue Bonds on or about June 8, 2005 to provide approximately \$50,000,000 for the Capital Improvement Program described herein. These bonds are expected to carry interest rates between approximately 3.50% and 5.00% and are expected to mature between the years 2006 and 2033.

The Bonds will be issued under a Trust Indenture dated as of October 15, 1993, as amended and supplemented by a First Supplemental Indenture dated as of July 15, 1995, a Second Supplemental Indenture dated as of March 1, 1998, a Third Supplemental Indenture dated as of March 1, 2002, a Fourth Supplemental Indenture dated as of September 15, 2003 and a Fifth Supplemental Indenture dated as of June 1, 2005 (collectively, the “Indenture” or “First Lien Indenture”) between the Authority and J.P. Morgan Trust Company, National Association, as Trustee. The anticipated sources and uses of funds for the 2005 Bonds are outlined in the Official Statement.

## **TOTAL DEBT SERVICE REQUIREMENTS**

In addition to the 2005 Bonds, the Authority will also have outstanding under the Indenture 2003 Bonds in the principal amount of \$157,535,000, 2002 Bonds in the principal amount of \$105,590,000, 1998 Series A Bonds in the principal amount of \$92,925,000, 1998 Series B Capital Appreciation Bonds with a compound accredited value (as of March 1, 2005) of \$52,494,224 and 1993 Series A Bonds in the principal amount of \$49,105,000. The Authority also has outstanding under the 1995 Subordinate Trust Indenture 1998 Series C Bonds in the principal amount of \$98,850,000 and six loans from the Pennsylvania Infrastructure Investment Authority (“PENNVEST”) in the outstanding principal amount of approximately \$15,300,000.

Table 3 below outlines the existing debt service payments of the Authority’s outstanding first lien and subordinate bond issues (excluding PENNVEST obligations).

**Table 3**  
**Existing Bonded Debt Service Payments**

<b>Year</b>	<b>1993 A</b>	<b>1998 A</b>	<b>1998 B</b>	<b>1998 C*</b>	<b>2002</b>	<b>2003</b>	<b>Total</b>
2005	\$3,191,825	\$4,703,618	\$ 0	\$5,029,326	\$7,298,463	\$18,657,439	\$38,880,670
2006	3,191,825	4,703,618	0	5,029,326	7,298,863	18,654,659	38,878,290
2007	3,191,825	4,703,618	0	5,029,326	7,296,063	18,656,794	38,877,625
2008	3,191,825	4,703,618	0	5,029,326	7,295,063	18,657,494	38,877,325
2009	3,191,825	4,703,618	0	5,029,326	7,294,488	18,655,231	38,874,488

\*Subordinated debt.

Table 4 below presents a forecast of future annual debt service payments, including existing bonded debt, existing PENNVEST debt, and the estimated debt payments resulting from the 2005 Bonds and a projected \$50,000,000 First Lien Water and Sewer Revenue Bond issue to be issued in mid-2007. It is assumed that the Authority would not begin to make debt service payments on the 2007 Bonds until 2008.

**Table 4**  
**Forecasted Debt Service Payments**

<b>Year</b>	<b>Debt Service Existing Bond Issues</b>	<b>Debt Service PENNVEST Loans</b>	<b>Estimated Debt Service 2005 Bonds</b>	<b>Projected Debt Service 2007 Bonds*</b>	<b>Total</b>
2005	\$ 38,880,670	\$ 684,000	\$ 0	\$ 0	\$ 39,564,670
2006	38,878,290	829,000	2,064,575	0	41,771,865
2007	38,877,625	834,000	3,288,150	0	42,999,775
2008	38,877,325	838,000	3,288,050	2,085,525	45,088,900
2009	38,874,488	854,000	3,292,450	3,314,675	46,335,613

\*Anticipated new issue to fund continuing capital program, estimated June 2007.

### ***DEBT SERVICE COVERAGE FACTOR***

The Authority's Trust Indenture provides for the fixing and charging by the Authority of rates, rents and charges for water and sewer service in accordance with the following Authority Rate Covenant. Under the Indenture, the Authority has covenanted with the owners of the bonds to adopt rates complying with either of the following in each Fiscal Year:

#### ***Method 1***

The Authority will maintain, charge and collect, so long as any of the bonds shall remain outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates), together with

other Receipts and Revenues, including any unrestricted cash and investments accumulated in the Revenue Fund at the beginning of each Fiscal Year, shall be at all times at least sufficient to provide annually;

- a. Funds to pay all of the Current Expenses of the Authority; and
- b. An amount equal to 120 percent of the Debt Service Requirements with respect to the bonds authenticated and delivered under the Indenture during the then current Fiscal Year of the Authority.

or

### ***Method 2***

---

The Authority will maintain, charge and collect, so long as any of the Bonds shall remain outstanding, reasonable rates, rentals and other charges for the use of the facilities of the Water and Sewer System which (after making due and reasonable allowances for contingencies and a margin of error in the estimates), together with other Receipts and Revenues, for the then current Fiscal Year (exclusive of interest income earned by the Authority on funds other than the Debt Service Reserve Fund; provided, however, that earnings on the Construction Fund may also be included during any construction period, but only to the extent such earnings are expressly required to be either retained in the Construction Fund and may be used to pay debt service on the Bonds or applied directly to payment of debt service of Bonds) shall be at all times at least sufficient to provide annually:

- a. Funds to pay all of the Current Expenses of the Authority; and
- b. An amount equal to 100 percent of the Debt Service Requirements with respect to the bonds authenticated and delivered under the Indenture during the then current Fiscal year of the Authority.

The Rate Covenant calculations included herein are based upon Method 1 above.

### ***Rate Covenant Calculations***

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Based on the forecasts of 1) Water Sales, 2) Interest Earnings, 3) Operating Expenses, and 4) Debt Service Requirements presented in the proceeding sections of this report, the Coverage Factors for the years 2005 through 2009 are calculated as shown in Table 5.



**Table 5**  
**Debt Service Coverage Factor**

	2005	2006	2007	2008	2009
Unrestricted Cash at Beginning of Year	\$20,616,264	\$19,550,162	\$16,341,606	\$19,308,614	\$19,455,175
<b>Revenues</b>					
Collections	\$115,680,000	116,836,800	126,183,744	127,445,581	128,720,037
Tap Fee Collections	800,000	900,000	925,000	930,000	950,000
Other Collections	231,740	300,000	300,000	300,000	325,000
Subtotal Collections	\$116,711,740	118,036,800	127,408,744	128,675,581	129,995,037
Less Customer Refunds	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)
Net Collections	\$116,211,740	\$117,536,800	\$126,908,744	\$128,175,581	\$129,495,037
Interest Earnings	1,712,800	2,000,000	2,020,000	2,040,200	2,060,602
Capital Reimb for Eng	1,400,000	1,200,000	1,212,000	1,224,120	1,236,361
Pennvest Loan Proceeds	1,300,000	0	0	0	0
<b>Total Operating Revenues</b>	\$120,624,540	\$120,736,800	\$130,140,744	\$131,439,901	\$132,792,000
<b>Total Funds Available</b>	\$141,240,804	\$140,286,962	\$146,482,350	\$150,748,515	\$152,247,175
<b>Operating Expenses</b>	\$82,125,972	\$82,173,491	\$84,173,961	\$86,204,440	\$88,265,529
<b>Funds Available for Debt Service</b>	\$59,114,832	\$58,113,471	\$62,308,389	\$64,544,075	\$63,981,646
Debt Service Requirements	\$39,564,670	\$41,771,865	\$42,999,775	\$45,088,900	\$46,335,613
<b>Debt Service Coverage Factor</b>	1.49	1.39	1.45	1.43	1.38
Required Coverage	1.20	1.20	1.20	1.20	1.20
Cash at End of Year	\$19,550,162	\$16,341,606	\$19,308,614	\$19,455,175	\$17,646,033

The Debt Service Coverage Factor of 1.20 (minimum) required by Method 1 of the Authority Rate Covenant is satisfied in each year of the study period (2005 through 2009).

### **OUTSTANDING LITIGATION**

To the best of our knowledge, there is no outstanding litigation at this time involving the Pittsburgh Water and Sewer Authority.

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***APPENDIX A***

***PWSA CAPITAL EXPENDITURE PLAN***

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# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### Capital Expenditures (\$1,000's)

PROJECT CLASSIFICATION	Plan			
	2006	2007	2008	2009
				Total
<b>WATER PROJECTS</b>				
A. WATER TREATMENT PLANT	2,549.8	3,516.5	7,172.1	1,560.6
B. PUMPING AND STORAGE	1,178.8	2,771.3	3,705.0	2,150.0
C. TRANSMISSION & DISTRIBUTION MAINS	1,990.0	1,677.5	2,140.0	2,940.9
D. VEHICLES & ROLLING STOCK (WATER)	250.0	250.0	250.0	250.0
E. MISCELLANEOUS (WATER)	750.0	1,250.0	1,250.0	750.0
TOTAL GROSS EXPENDITURES (WATER)	6,718.5	9,465.3	14,517.1	7,651.5
				\$ 40,783.6
<b>WASTEWATER PROJECTS</b>				
F. WASTEWATER - COLLECTION	9,732.5	7,797.5	4,382.5	4,382.5
G. WASTEWATER PUMPING	1,075.0	935.3	-	-
H. VEHICLES & ROLLING STOCK (WASTEWATER)	150.0	150.0	150.0	50.0
I. MISCELLANEOUS (WASTEWATER)	780.0	780.0	780.0	780.0
TOTAL GROSS EXPENDITURES (WASTEWATER)	11,737.5	9,662.8	5,312.5	5,212.5
				\$ 38,625.3
<b>COMBINED PROJECTS</b>				
IT INFORMATION TECHNOLOGY	523.1	179.5	28.9	85.5
CITY HIGHWAY/PRIVATE/CITY/OTHER PROJECTS	2,701.5	2,887.7	500.0	-
URA	6,120.0	5,240.0	3,760.0	3,760.0
S&EA	-	-	-	-
TOTAL GROSS EXPENDITURES (Combined)	9,344.6	8,307.2	4,288.9	3,845.5
				\$ 32,176.2
<b>COMPANY TOTAL GROSS EXPENDITURES</b>				
	\$ 27,800.6	\$ 27,435.2	\$ 24,118.5	\$ 16,709.5
				\$ 111,585.1

Forecast
2005

991.3
250.0
240.0
250.0
700.0
\$ 2,431.3

5,490.0
330.0
250.0
630.0
\$ 6,700.0

415.4
-
5,900.0
74.6
\$ 6,390.0

\$ 15,521.3
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# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### A. WATER TREATMENT PLANT

Criticality (1= Highest, 5 =Lowest)

Project ID	Project Description	Criticality (1-5)	Classification	Project Manager	Funding	Prior Years Expends	2005	2006	2007	2008	2009
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<b>Total Gross Expenditure</b>							991.3	2,549.8	3,516.5	7,172.1	1,560.6
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	Laboratory Rehabilitation	5	20	TMG				139.8	129.0		
	Auxiliary Chlorine Facility	1	11	TMG		161.3					
	Highland No. 1, MFP	2	11	TMG		450.0					
	Auxiliary Generators	1	20	TMG				537.5	537.5	537.5	
	Clarifier/Filter System Design	1	11	DG				300.0	300.0	1,075.0	510.6
	Intake Screening Design	1	11	TMG				330.0	330.0	935.3	
	Clearwell Design and Improvements	1	20	TMG		150.0		150.0	1,075.0	2,365.0	
	Lime Machines Replacement	5	40	DJW/CG		150.0					
	Carbon Feed Pumps	5	40	DJW/CG					20.0		
	SCADA System Improvements	1	20	TMG				375.0	1,075.0	1,209.4	
	Membrane Filtration Modules	5	32	DJW/CG						1,000.0	1,000.0
	WTP Pump/Motors	1	40	DJW/CG		30.0		30.0	50.0	50.0	50.0
	Security and Facility Fencing	1	12	TMG		-		537.5			
	WTP Fuel Oil Tank Closure	1	40	DG				100.0			
	Softeners Sodium Hypochlorite Building	1	33	TMG		50.0		50.0			

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### B. PUMPING AND STORAGE

Criticality (1= Highest, 5 =Lowest)

Project ID	Project Description	Criticality (1-5)	Classification	Project Manager	Funding	Prior Years Expends	2005	2006	2007	2008	2009
Total Gross Expenditure							250.0	1,178.8	2,771.3	3,705.0	2,150.0

	Pump Station Switchgear	1	3	TMG				537.5	500.0	750.0	
	H1 Reservoir Lining Project	1	3	TMG						1,397.5	1,075.0
	New Highland Pump Station Rehabilitation	5	40	RT						270.0	1,075.0
	Water System Modeling and Improvements	1	20	TMG			200.0	200.0	200.0		
	Water Tank Improvements	3	40	RT				30.0	800.0	750.0	
	Pump Station Roof Inspection/Replacement	3	40	TMG				161.3	215.0		
	Mission Street Pump Station Rehabilitation	2	40	TMG					537.5	537.5	
	48 Volt DC System Pump Stations	1	20	TMG			50.0				
	Boilers Mission Yard	2	40	TMG				250.0	250.0		
	Inline Pump Coral Pacific Vault	2	40	RT					268.8		

# Capital Expenditure Plan 2006

# Pittsburgh Water and Sewer Authority

## C. TRANSMISSION & DISTRIBUTION MAINS

Criticality (1= Highest, 5 =Lowest)

Project ID	Project Description	Criticality (1-5)	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009

Total Gross Expenditure	240.00	1,990.00	1,677.50	2,140.00	2,940.88
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	Water Line Replacement (Emergency)	1	32	TMG/MDL				750.0	1,000.0	2,000.0	2,000.0
	Hydrant and Valve Replacement	3	32	DJW			100.0	100.0	100.0	100.0	100.0
	Customer Meters (Repl. Meter + AMR)	3	32	DJW			100.0				
	Purchase Fire Hydrants	1	15	DJW			40.0	40.0	40.0	40.0	40.0
	Allequippa St/Upper Oakland Waterline	4	32	RT			1,000.0				
	Meter Vault Reserve Township	3	32	RT				268.8			
	Regulator Vault Lid Inspections	3	32	RT				268.8			
	Baum - Highland and Beatty	4	32	RT							225.8
	Anderson Playground	4	32	RT							193.5
	Baum - Liberty to Bridge	4	32	RT							344.0
	Guyman	4	32	RT							37.6



# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### D. VEHICLES & ROLLING STOCK (WATER)

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expends	2005	2006	2007	2008	2009
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Total Gross Expenditure	250.0	250.0	250.0	250.0	250.0
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Vehicles		40	DJW			250.0	250.0	250.0	250.0	250.0
Radios		40	DJW							
Compressor		40	DJW							

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### E. MISCELLANEOUS (WATER)

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expendis	2005	2006	2007	2008	2009
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Total Gross Expenditure						700.0	750.0	1,250.0	1,250.0	750.0
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	Misc. Tools & Equipment	40	DJW			100.0	150.0	150.0	150.0	150.0
	Reimb for PWSA Eng. Dept.	99	GT			600.0	600.0	600.0	600.0	600.0
	Central Warehouse	32	DJW				500.0	500.0	500.0	

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### F. WASTEWATER - COLLECTION

Criticality (1= Highest, 5 =Lowest)

Project ID	Project Description	Criticality (1-5)	Classification	Project Manager	Funding	Prior Years Expends	2005	2006	2007	2008	2009
Total Gross Expenditure							5,490.0	9,732.5	7,797.5	4,382.5	4,382.5

	Manhole/Catch Basin	1	11	RT			806.3	806.3	806.3	806.3	806.3
	Sewer Repair/Improvements	1	11	DRW			1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
	Sewer Rehabilitation Gunite	1	11	MDL			200.0	700.0	700.0	700.0	700.0
	Sewer Rehabilitation Lining	1	11	TMG			500.0	700.0	700.0	1,000.0	1,000.0
	Sewer Televising/Cleaning	1	11	GA			483.8	376.3	376.3	376.3	376.3
	Manhole Inspections	1	11	GA			500.0	500.0	500.0	500.0	500.0
	CSO Long Term Control Plan	1	11	MDL			2,000.0	3,000.0	3,000.0		
	Jack's Run sewer improvements	1	32	MDL				2,150.0	215.0		
	Sheraden Park sewer improvements	1	32	MDL				500.0	500.0		

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### G. WASTEWATER PUMPING

Criticality (1= Highest, 5 =Lowest)

Project ID	Project Description	Criticality (1-5)	Classification	Project Manager	Funding	Prior Years Expends	2005	2006	2007	2008	2009
------------	---------------------	-------------------	----------------	-----------------	---------	---------------------	------	------	------	------	------

Total Gross Expenditure							330.0	1,075.0	935.3	-	-
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	Sewage Pump Station Improvements	1	11	DG			330.0	1,075.0	935.3		

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### H. VEHICLES & ROLLING STOCK (WASTEWATER)

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009

Total Gross Expenditure

250.0	150.0	150.0	150.0	50.0
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	Vehicles	40	DJW			250.0	150.0	150.0	150.0	50.0
	Radios	40	DJW							

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### I. MISCELLANEOUS (WASTEWATER)

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009

Total Gross Expenditure	630.0	780.0	780.0	780.0	780.0
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	Misc. tools and equipment	40	DJW				150.0	150.0	150.0	150.0
	Reimb for PWSA Eng. Dept.	99	GT			600.0	600.0	600.0	600.0	600.0
	Castings	99	GT			30.0	30.0	30.0	30.0	30.0

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### J. INFORMATION TECHNOLOGY

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009
Total Gross Expenditure						415.4	523.1	179.5	28.9	85.5
Advances & Contributions						-	-	-	-	-
	LJMs improvements - cost to integrate additional lab equipment	99	GP			2.0	2.0	2.0	2.0	
	Routers	32	GP			4.0				
	Printers	50	GP			8.0	10.0			
	PCs as needed for new hires	99	GP			1.5	1.5	2.0	2.0	2.0
	File Server Replacements	32	GP			10.0			10.0	
	PC Replacements	40	GP			57.5	30.0			57.5
	OnBase Disks	40	GP				7.0			
	OnBase Server Replacement	40	GP							25.0
	Video Projector	99	GP			5.0			5.0	
	Network Buildout for new office (?)	99	GP				30.0			
	SAP Servers (to bring SAP inhouse)	99	GP					135.0		
	SAP Bill consolidation and web presentation	60	GP			200.0				
	SAP workflow and correspondence	60	GP			70.0				
	SAP electronic bank statement	60	GP			25.0				
	SAP Upgrade	32	GP				70.0			
	SAP archiving	32	GP							
	IVR and SAP integration	60	GP				100.0			
	From Finance									
	3rd Floor Shredder - Smithfield	99	KS			1.0				
	Postage Machine	99	KS				5.0			
	Fax Machine -Customer Service Downtown	99	KS						0.9	

# Capital Expenditure Plan

## J. INFORMATION TECHNOLOGY (continue)

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009
	Fax Machine - Warehouse 10 Years old	32	KS			0.9				
	Fax Machine - Brilliant (2)	99	KS				0.9			
	Fax Machine - Mission	99	KS				0.9			
	Fax Machine - WTP	99	KS				0.9			
	Mission (1)	32	KS							
	Scanner - Customer Service	60	KS						8.0	
	Upgrade/Replace Phone System:									
	Smithfield	60	KS				130.0			
	WTP	60	KS				25.0			
	Brilliant	99	KS				15.0			
	Mission/Howard	99	KS				15.0			
	Warehouse	99	KS				15.0			
	CD ROM Storage - Finance is projecting an increase in number of CD's especially for customer receipts and also for the current Ceridian payrolls.					1.5				
	Office Furniture - Miscellaneous other office supplies filing cabinets etc.	99	KS			1.0	1.0	1.0	1.0	1.0



# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### K. HIGHWAY/PRIVATE/CITY/OTHER PROJECTS

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009
------------	---------------------	----------------	-----------------	---------	--------------------	------	------	------	------	------

Total Gross Expenditure	
Advances & Contributions	

-	2,701.5	2,887.7	500.0	-	-
-	-	-	-	-	-

	Brookline Boulevard	14	DRW				537.5	215.0		
	Forbes & Market Water and Sewer	14	DRW					500		
	Port Authority Stanwix Betterment	14	DG				1,465.2	1,135.2		
	Port Authority Betterment 11th Street	14	DG				698.8			
	Port Authority North Shore Betterment	14	DG					537.5		
	Wenzel Avenue GP&C	14	DRW							
	Penn Avenue Water and Sewer	14	DRW					500.0	500.0	

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### L. URA

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009
------------	---------------------	----------------	-----------------	---------	--------------------	------	------	------	------	------

Total Gross Expenditure	
Advances & Contributions	

5,900.0	
-	

6,120.0	5,240.0	3,760.0	3,760.0
-	-	-	-

	S.S. Industrial Development & East Carson	1	RT/JB			1280	1,600			
	Nine Mile Run Development	1	MDL/RT			2,080.0	1,360	2,800	960	960
	Allequippa Terrace	1	DG			360.0	1,200	1,000	800	800
	Bedford Dwellings	1	DG			880.0	800	440		
	South Side Riverfront Housing	1	DG			800.0	160			
	Proposed Development Projects					500.0	1,000.0	1,000.0	2,000.0	2,000.0

# Capital Expenditure Plan 2006

## Pittsburgh Water and Sewer Authority

### M. S&EA

Project ID	Project Description	Classification	Project Manager	Funding	Prior Years Expend	2005	2006	2007	2008	2009
------------	---------------------	----------------	-----------------	---------	--------------------	------	------	------	------	------

Total Gross Expenditure
Advances & Contributions

74.6	-	-	-	-	-
-	-	-	-	-	-

	Convention Center S&EA	1	DRW			43.7				
	North Shore / Riverfront Park - S&EA	32	DRW/JB			30.9				

## PROJECT CLASSIFICATION CODES

### SELF-SUPPORTING PROJECTS

- 01 New Services, New Meters, New Sewer Laterals
- 02 Extensions to New Customers
- 03 Expense-Reducing Projects  
Projects that produce a return on investment equal to that of the cost of money to PWSA (See Finance)  
Rule of thumb: annual expense saving = 15% of investment.
- 04 Other Self-Supporting  
Includes projects eligible for revenue surcharges, pass-throughs, etc.

### PROJECTS MANDATED BY GOVERNMENTAL AGENCIES

- 11 Compliance With Environmental Regulations
- 12 Compliance With Safety Regulations
- 13 Compliance With City Mandates
- 14 Projects Required Due To Highway Improvement Projects
- 15 Project Required By Municipal Agencies
- 16 Other Government Mandates

### CORRECTION OF SERVICE DEFICIENCIES

- 20 Correction of Service Deficiencies

### PREVENTION OF SERVICE DEFICIENCIES

- 31 Required Added Capacity
- 32 Infrastructure Replacement
- 33 Other Improvements

### COST CONTAINMENT

- 40 Cost Containment  
Includes replacement of tools and equipment that would result in higher O&M expense if not replaced.

### COST IMPROVEMENT

- 50 Cost Improvement  
Includes projects that reduce O&M expense, but not to the level required for Priority Code 03.

### PRODUCTIVITY IMPROVEMENT

- 60 Productivity Improvement  
Includes "modernization" projects whose benefits may not be easily quantified and are not immediate.  
Examples are projects that eliminate or delay the need for additional personnel at some future date.

- 99 All Other

### Self-Supporting Projects

Self-supporting projects are those that produce revenues or expense savings sufficient to support the project, including projects directly related to serving new customers.

#### 01 New Services/Meters/Mains/Sewer Laterals, etc.

These projects are typically known as "developer" projects, meaning that new main, services and firelines will be needed for either a new residential or commercial development. Generally, these projects are fully contributed by the developer.

#### 03 Expense-Reducing Projects

To be included in this priority, a project should produce a return on investment at least equal to the cost of capital provided annually by the finance director.

#### 04 Other Self-Supporting Projects

An example of a project within this classification is a main replacement project that is funded by another agency.

### Projects Mandated by Governmental Agency

Projects in this category are generally "non-discretionary." Their timing is usually dictated by the subject agencies.

#### 11 Compliance with Environmental Regulations

#### 12 Compliance with Safety Requirements

#### 13 Compliance with City Mandates

#### 14 Highway Improvement

These projects are required due to highway improvement projects.

#### 15 Compliance with Municipal Agencies

These projects include those related to building code compliance and new hydrant installation.

#### 16 Other Government-Mandated Projects

### Correction of Service Deficiencies

#### 20 Correction of Service Deficiencies

These projects are required to correct existing service deficiencies, e.g. low pressure and inadequate fire flow. These projects should be considered non-discretionary and should be undertaken without delay.

### Prevention of Service Deficiencies

These projects are required to prevent decline of a level of service that is currently adequate. Included are projects for expansion of capacity resulting from growth. Projects in this category are also "non-discretionary" in the sense that failure to address will result in noncompliance with regulatory/municipal/government requirements.

#### 31 Added Capacity

#### 32 Infrastructure Replacement Projects

This is a special subcategory in that the need is ongoing and the required level of expenditures for most systems is significant. However, there is a degree of latitude in determining the timing of these expenditures. If it is determined that a given footage of pipe should be replaced in a five-year period, this footage can be distributed over the period in a number of ways.

33 Other Improvements, Projects not includable in any of the above categories. Generally, General Plant Projects are grouped into this category.

### Other Improvements

#### 40 Cost Containment

This category includes expenditures related to "routine" replacements of items that are likely to produce increasing levels of expense if not replaced. Examples are tools and equipment that require more frequent repairs as they age, and pumps and motors whose efficiency declines over time. Timing of projects is somewhat flexible in that a one-year delay is not critical.

#### 50 Cost Improvement

This category includes projects that provide an immediate reduction of operations and maintenance (O&M) expenses but not to the level required for inclusion in Category 03. As with Category 40, timing is flexible.

#### 60 Productivity Improvement

This category includes many "modernization" projects whose benefits may not be easily quantified and are not immediate. Typical projects in this category are those that will eliminate or delay the need for hiring additional personnel in the future. Other projects include those that may produce improved levels of customer service that may not be easily measured. Projects included in this category should be examined closely to be sure that they do not belong in a higher-priority category.

#### 99 All Other

These projects are not included in any of the above categories. Generally, General Plant Projects are grouped into this category.

**APPENDIX F**

**FORM OF BOND COUNSEL OPINION**

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June \_\_\_, 2005

RE: \$50,385,000 The Pittsburgh Water and Sewer Authority Water and Sewer System First Lien Revenue Bonds, Series of 2005

To the Purchasers of the Above-Described Bonds:

We have acted as Bond Counsel to The Pittsburgh Water and Sewer Authority (the "Authority") in connection with the issuance and sale by the Authority of its \$50,385,000, aggregate principal amount, Water and Sewer System First Lien Revenue Bonds, Series of 2005 (the "2005 Bonds"). The 2005 Bonds are issued pursuant to a Trust Indenture dated as of October 15, 1993, as amended and supplemented by a First Supplemental Indenture dated as of July 15, 1995 (the "First Supplemental Indenture"), a Second Supplemental Indenture dated as of March 1, 1998 (the "Second Supplemental Indenture"), a Third Supplemental Indenture dated as of March 1, 2002 (the "Third Supplemental Indenture"), a Fourth Supplemental Indenture dated as of September 15, 2003 (the "Fourth Supplemental Indenture") and a Fifth Supplemental Indenture dated as of June 1, 2005 (the "Fifth Supplemental Indenture") (collectively, the "Indenture") between the Authority and J.P. Morgan Trust Company, National Association, as trustee, successor by merger to Chase Manhattan Trust Company, National Association, successor trustee to PNC Bank, National Association (the "Trustee").

The 2005 Bonds are issued to provide funds to pay for capital improvements to the Authority's Water and Sewer System, to fund certain capitalized interest and to pay all costs of issuance of the 2005 Bonds.

The 2005 Bonds are secured (along with other bonds issued pursuant to the Indenture) by a first lien pledge of the Receipts and Revenues of the Authority after payment of the Current Expenses, together with funds held by the Trustee under the Indenture as provided therein. The 2005 Bonds are not obligations of the City of Pittsburgh or the Commonwealth of Pennsylvania (the "Commonwealth"), or of any political subdivision thereof. The Authority has no taxing power.

As Bond Counsel, we have examined the Indenture, certified copies of all of the proceedings relating to the issuance of the 2005 Bonds, including the certification of the Authority that the Authority does not expect that the proceeds of the 2005 Bonds will be used in a manner which would cause the 2005 Bonds to be arbitrage bonds within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended (the "Code"), the Pennsylvania Municipality Authorities Act, 53 Pa. C.S.A. §5601 *et seq.*, as amended (the "Act"), the constitution of the Commonwealth and such other public records and documents and matters of law, and made such other investigations as we deemed appropriate for the purpose of this opinion.

Based upon the foregoing, it is our opinion that, under existing law:

1. The Authority is a public instrumentality and body corporate and politic duly organized pursuant to the Act and is validly existing and in good standing under the Act.
2. The Authority has full legal right, power and authority to enter into the Fifth Supplemental Indenture, to issue, sell and deliver the 2005 Bonds and to carry out and consummate all other transactions to be carried out and consummated by it as contemplated by the Indenture.
3. The Indenture has been duly authorized, executed and delivered by the Authority and constitutes a legal, valid and binding obligation of the Authority, enforceable in accordance with its terms.
4. The 2005 Bonds have been duly authorized, executed, authenticated, issued and delivered, and constitute legal, valid and binding obligations of the Authority enforceable in accordance with their terms, and are entitled to the benefit and security of the Indenture.

5. Interest on and accruals of original issue discount properly allocable to a registered owner with respect to the 2005 Bonds (a) are excluded from gross income for federal income tax purposes and (b) are not items of tax preference within the meaning of Section 57(a)(5) of the Code for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, it should be noted that, with respect to corporations (as defined for federal income tax purposes), such interest and accruals are taken into account in determining adjusted current earnings for the purposes of computing the alternative minimum tax imposed on such corporations by Section 55 of the Code. The opinion set forth in clause (a) above is subject to the condition that the Authority comply with all requirements of the Code that must be satisfied subsequent to the issuance of the 2005 Bonds in order that interest thereon and accruals of original issue discount properly allocable to a registered owner with respect thereto be (or continue to be) excluded from gross income for federal tax purposes. Failure to comply with such requirements could cause interest on and accruals of original issue discount properly allocable to a registered owner with respect to the 2005 Bonds to be included in gross income retroactively to the date of issuance of the 2005 Bonds. We express no opinion regarding other federal tax consequences arising with respect to the 2005 Bonds.

6. The 2005 Bonds are exempt from personal property tax in Pennsylvania and the interest on the 2005 Bonds is exempt from Pennsylvania corporate net income tax and from Pennsylvania personal income tax.

It is understood that the rights of the holders of the 2005 Bonds and the enforceability of the 2005 Bonds and rights of the Trustee under the Indenture and enforceability thereof may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable and that their enforcement may also be subject to the exercise of judicial discretion in appropriate cases.

We express no opinion as to the accuracy, adequacy or completeness of the Official Statement relating to the 2005 Bonds.

This opinion is given as of the date hereof and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Very truly yours,

ECKERT SEAMANS CHERIN & MELLOTT, LLC



## **APPENDIX G**

### **FORM OF MUNICIPAL BOND INSURANCE POLICY**

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# FINANCIAL GUARANTY INSURANCE POLICY

**MBIA Insurance Corporation  
Armonk, New York 10504**

Policy No. [NUMBER]

MBIA Insurance Corporation (the "Insurer"), in consideration of the payment of the premium and subject to the terms of this policy, hereby unconditionally and irrevocably guarantees to any owner, as hereinafter defined, of the following described obligations, the full and complete payment required to be made by or on behalf of the Issuer to [PAYING AGENT/TRUSTEE] or its successor (the "Paying Agent") of an amount equal to (i) the principal of (either at the stated maturity or by any advancement of maturity pursuant to a mandatory sinking fund payment) and interest on, the Obligations (as that term is defined below) as such payments shall become due but shall not be so paid (except that in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments guaranteed hereby shall be made in such amounts and at such times as such payments of principal would have been due had there not been any such acceleration, unless the Insurer elects in its sole discretion, to pay in whole or in part any principal due by reason of such acceleration); and (ii) the reimbursement of any such payment which is subsequently recovered from any owner pursuant to a final judgment by a court of competent jurisdiction that such payment constitutes an avoidable preference to such owner within the meaning of any applicable bankruptcy law. The amounts referred to in clauses (i) and (ii) of the preceding sentence shall be referred to herein collectively as the "Insured Amounts." "Obligations" shall mean:

**[PAR]  
[LEGAL NAME OF ISSUE]**

Upon receipt of telephonic or telegraphic notice, such notice subsequently confirmed in writing by registered or certified mail, or upon receipt of written notice by registered or certified mail, by the Insurer from the Paying Agent or any owner of an Obligation the payment of an Insured Amount for which is then due, that such required payment has not been made, the Insurer on the due date of such payment or within one business day after receipt of notice of such nonpayment, whichever is later, will make a deposit of funds, in an account with U.S. Bank Trust National Association, in New York, New York, or its successor, sufficient for the payment of any such Insured Amounts which are then due. Upon presentment and surrender of such Obligations or presentment of such other proof of ownership of the Obligations, together with any appropriate instruments of assignment to evidence the assignment of the Insured Amounts due on the Obligations as are paid by the Insurer, and appropriate instruments to effect the appointment of the Insurer as agent for such owners of the Obligations in any legal proceeding related to payment of Insured Amounts on the Obligations, such instruments being in a form satisfactory to U.S. Bank Trust National Association, U.S. Bank Trust National Association shall disburse to such owners, or the Paying Agent payment of the Insured Amounts due on such Obligations, less any amount held by the Paying Agent for the payment of such Insured Amounts and legally available therefor. This policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Obligation.

As used herein, the term "owner" shall mean the registered owner of any Obligation as indicated in the books maintained by the Paying Agent, the Insurer, or any designee of the Issuer for such purpose. The term owner shall not include the Issuer or any party whose agreement with the Issuer constitutes the underlying security for the Obligations.

Any service of process on the Insurer may be made to the Insurer at its offices located at 113 King Street, Armonk, New York 10504 and such service of process shall be valid and binding.

This policy is non-cancellable for any reason. The premium on this policy is not refundable for any reason including the payment prior to maturity of the Obligations.

IN WITNESS WHEREOF, the Insurer has caused this policy to be executed in facsimile on its behalf by its duly authorized officers, this [DAY] day of [MONTH, YEAR].

**MBIA Insurance Corporation**

\_\_\_\_\_  
President

Attest:

\_\_\_\_\_  
Assistant Secretary

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