COMPETITIVE BID NEW ISSUE – Book-Entry Only

RATINGS: See "Ratings of the Bonds" herein

In the opinion of Bond Counsel, under existing laws, regulations and judicial decisions, interest on the Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations, except as described under "Tax Exemption and Other Tax Matters", herein. Under the laws of the Commonwealth of Pennsylvania as presently enacted and construed, the Bonds are exempt from personal property taxes in Pennsylvania and interest on the Bonds is exempt from Pennsylvania personal income tax and from Pennsylvania corporate net income tax. In rendering this opinion, Bond Counsel has assumed continuing compliance with tax covenants to satisfy certain provisions of the Internal Revenue Code of 1986, as amended. (See "Tax Exemption and Other Tax Matters" herein.)

THE PITTSBURGH WATER AND SEWER AUTHORITY

$89,850,000

Water and Sewer System First Lien Revenue Bonds, Series A of 1995

$103,020,000

Water and Sewer System Subordinate Revenue Bonds, Series B of 1995

Dated: July 15, 1995
Due: September 1, as shown on inside front cover herein
Denomination: Integral multiples of $5,000

Interest Payable: March 1 and September 1
First Interest Payment Date: March 1, 1996
Form: Book-Entry Only

The Water and Sewer System First Lien Revenue Bonds, Series A of 1995 (the "1995 Series A Bonds") and the Water and Sewer System Subordinate Revenue Bonds, Series B of 1995 (the "1995 Series B Bonds" or "Subordinate Bonds", and together with the 1995 Series A Bonds, the "Bonds") will be special limited obligations of The Pittsburgh Water and Sewer Authority (the "Authority"). The 1995 Series A 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, between the Authority and PNC Bank, National Association, as Trustee (the "First Lien Indenture"). The 1995 Series B Bonds will be issued under a Subordinate Trust Indenture, dated as of July 15, 1995 between the Authority and PNC Bank, National Association, as Trustee (the "Subordinate Indenture", and together with the First Lien Indenture, the "Indentures").

The Indentures provide that the 1995 Series A Bonds shall be secured by a first lien pledge and the 1995 Series B Bonds are secured by a subordinate 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, distribution and wastewater collection systems of the Authority (the "Water and Sewer System"), and reserves therefor as provided in the Indentures.

The scheduled payment of the principal of and interest on the 1995 Series A Bonds when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the 1995 Series A Bonds by:

FGIC™

Financial Guaranty Insurance Company

FGIC is a registered service mark used by Financial Guaranty Insurance Company, a private company not affiliated with any U.S. Government agency.

The scheduled payment of the principal of and interest on the 1995 Series B Bonds when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the 1995 Series B Bonds by Financial Security Assurance Inc.:

FSA

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 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 PNC Bank, National Association, Pittsburgh, Pennsylvania, as trustee under the Indentures (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 March 1, 1996 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 heading "Redemption of the Bonds" herein.

THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY PAYABLE SOLELY 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 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.

Prudential Securities Incorporated

The Bonds are offered when, as and if issued by the Authority and received by the Underwriter subject to the approval of the legality of Doepken Keevican & Weiss Professional Corporation and Kutak Rock, Co-Bond Counsel. Certain legal matters will be passed upon for the Authority by its Special Counsel, Ford & Council, and by its Disclosure Counsel, Babst, Calland, Clements and Zomnir, P.C. The Authority expects that delivery of the Bonds in definitive form will be made in New York, New York, on or about July 27, 1995.

The undersigned acted as financial advisor to the Authority.

GRANT STREET ADVISORS *financial consultants advising municipal and non-profit enterprises*

Dated: July 12, 1995

MATURITY SCHEDULE

The Pittsburgh Water and Sewer Authority
$89,850,000
Water and Sewer System First Lien Revenue Bonds, Series A of 1995

Maturity (September 1)	Principal Amount	Interest Rate	Price	Yield	Maturity (September 1)	Principal Amount	Interest Rate	Price	Yield
1998	1,555,000	4.000%	100.000%	4.000%	2007	2,300,000	5.000%	99.100%	5.100%
1999	1,615,000	4.125	99.903	4.150	2008	2,415,000	5.200	100.000	5.200
2000	1,685,000	4.250	99.769	4.300	2009	2,540,000	5.300	100.000	5.300
2001	1,755,000	4.375	99.863	4.400	2010	2,675,000	5.300	98.971	5.400
2002	1,830,000	4.400	99.394	4.500	2011	2,820,000	5.400	98.935	5.500
2003	1,915,000	4.500	99.326	4.600	2012	2,970,000	5.400	98.351	5.550
2004	2,000,000	4.625	99.445	4.700	2013	3,130,000	5.500	98.865	5.600
2005	2,090,000	4.800	99.600	4.850	2014	3,305,000	5.500	98.255	5.650
2006	2,190,000	5.000	100.000	5.000	2015	3,485,000	5.500	98.205	5.650

$11,660,000 Term Bonds at 5.60% Due September 1, 2018
Priced at 98.25% to Yield 5.737%

$18,830,000 Term Bonds at 5.60% Due September 1, 2022
Priced at 98.00% to Yield 5.746%

$17,085,000 Term Bonds at 5.65% Due September 1, 2025
Priced at 98.00% to Yield 5.790%

The Pittsburgh Water and Sewer Authority
$103,020,000
Water and Sewer System Subordinate Revenue Bonds, Series B of 1995

Maturity (September 1)	Principal Amount	Interest Rate	Price	Yield	Maturity (September 1)	Principal Amount	Interest Rate	Price	Yield
1996	2,035,000	4.000%	100.422%	3.600%	2006	4,225,000	5.000%	100.000%	5.000%
1997	2,575,000	4.000	100.396	3.800	2007	3,980,000	5.100	99.549	5.150
1998	2,505,000	4.000	100.000	4.000	2008	2,800,000	5.200	99.059	5.300
1999	2,490,000	4.100	99.810	4.150	2009	1,965,000	5.300	99.016	5.400
2000	2,590,000	4.250	99.769	4.300	2010	2,070,000	5.400	98.977	5.500
2001	3,130,000	4.375	99.863	4.400	2011	2,180,000	5.500	98.942	5.600
2002	3,490,000	4.500	100.000	4.500	2012	2,300,000	5.500	98.363	5.650
2003	3,650,000	4.600	100.000	4.600	2013	2,425,000	5.600	98.874	5.700
2004	3,830,000	4.700	100.000	4.700	2014	2,565,000	5.600	98.268	5.750
2005	4,025,000	4.800	99.600	4.850	2015	2,705,000	5.600	98.220	5.750

$16,020,000 Term Bonds at 5.70% Due September 1, 2020
Priced at 98.50% to Yield 5.813%

$29,465,000 Term Bonds at 5.75% Due September 1, 2025
Priced at 98.25% to Yield 5.874%

THE PITTSBURGH WATER AND SEWER AUTHORITY

Joseph Preston, Jr.	Chairman
Eugene Ricciardi	Vice-Chairman
Cliff Merkell	Secretary
Rowan A. Miranda, Ph.D.	Treasurer
Paul Hennigan	Assistant Secretary/ Assistant Treasurer
Ann J. Davis	Member
Robert Provolt, Sr.	Member

AUTHORITY SPECIAL COUNSEL

Ford & Council
Pittsburgh, PA

CO-BOND COUNSEL

Doepken Keevican & Weiss Professional Corporation
Pittsburgh, PA

Kutak Rock
Pittsburgh, PA

DISCLOSURE COUNSEL

Babst, Calland, Clements & Zomnir, P.C.
Pittsburgh, PA

AUTHORITY CONSULTING ENGINEER

Chester Environmental
Pittsburgh, PA

TRUSTEE AND PAYING AGENT

PNC Bank, National Association
Pittsburgh, PA

FINANCIAL ADVISOR

Grant Street Advisors
Pittsburgh, PA

UNDERWRITER

Prudential Securities Incorporated
New York, NY

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 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1993, NOR HAVE THE INDENTURES 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.

TABLE OF CONTENTS

SUMMARY INFORMATION	iii
INTRODUCTION	1
THE AUTHORITY	1
OWNERSHIP AND OPERATIONS	3
THE BONDS	3
REDEMPTION OF THE BONDS	5
MUNICIPAL BOND INSURANCE	7
ESTIMATED SOURCES AND USES OF FUNDS	9
INVESTMENT AGREEMENTS AND OTHER INSTRUMENTS	9
DEBT SERVICE REQUIREMENTS	10
SECURITY FOR THE BONDS	10
FLOW OF FUNDS	12
RATE COVENANT	13
THE WATER AND SEWER SYSTEM	13
THE CAPITAL IMPROVEMENT PROGRAM	20
FUTURE INDEBTEDNESS	20
LITIGATION	21
FINANCIAL STATEMENTS	21
ORIGINAL ISSUE DISCOUNT	21
TAX EXEMPTION AND OTHER TAX MATTERS	21
NOT ARBITRAGE BONDS	22
THE TRUSTEE	22
LEGAL OPINIONS	23
RATINGS OF THE BONDS	23
CONTINUING DISCLOSURE	23
FINANCIAL ADVISOR	24
UNDERWRITING	24
MISCELLANEOUS	24

Appendix A	Summary of Indentures
Appendix B	Authority Financial Statements
Appendix C	Description of Service Area
Appendix D	Consulting Engineer's Report
Appendix E	Form of Co-Bond Counsel Opinion
Appendix F	Form of Municipal Bond Insurance Policy

OTHER THAN WITH RESPECT TO INFORMATION CONCERNING FINANCIAL SECURITY ASSURANCE INC. ("FINANCIAL SECURITY") CONTAINED UNDER THE CAPTIONS "1995 SERIES B BONDS – BOND INSURANCE POLICY" AND "FINANCIAL SECURITY ASSURANCE INC." HEREIN, NONE OF THE INFORMATION IN THIS OFFICIAL STATEMENT HAS BEEN SUPPLIED OR VERIFIED BY FINANCIAL SECURITY AND FINANCIAL SECURITY MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO (i) THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION; (ii) THE VALIDITY OF THE 1995 SERIES B BONDS; OR (iii) THE TAX EXEMPT STATUS OF THE INTEREST ON THE 1995 SERIES B BONDS.

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.

Offering	The Pittsburgh Water and Sewer Authority, $89,850,000 Water and Sewer System First Lien Revenue Bonds, Series A of 1995 and $103,020,000 Water and Sewer System Subordinate Revenue Bonds, Series B of 1995.
Dated Date of Bonds	July 15, 1995.
Denomination	$5,000 or multiples thereof.
Maturity	September 1 on the dates specified on the inside front cover hereof.
Interest	Payable on March 1 and September 1 of each year commencing March 1, 1996.
Security	The 1995 Series A Bonds, together with the 1993 Series A Bonds and the 1993 Series B Bonds, are equally and ratably secured 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 First Lien Indenture. The 1995 Series B Bonds are secured by a subordinate pledge of the Receipts and Revenues of the Authority after payment of Current Expenses, together with funds held under the Subordinate Indenture. The timely payment of principal of and interest on the 1995 Series A Bonds is insured under a bond insurance policy issued by Financial Guaranty Insurance Company. The timely payment of principal of and interest on the 1995 Series B Bonds is insured under a bond insurance policy issued by Financial Security Assurance Inc. (See "SECURITY FOR THE BONDS" and "MUNICIPAL BOND INSURANCE" herein.)
Use of Proceeds	The 1995 Series A Bonds will be used (a) to pay for improvements to the Authority's Water and Sewer System; (b) to fund a reserve fund; and (c) to pay all costs of issuance, including the bond insurance premiums, with respect to the Bonds. The 1995 Series B Bonds will be used (a) to pay certain obligations of the Authority to the City of Pittsburgh under a Capital Lease Agreement dated as of July 15, 1995; and (b) to fund a reserve fund.
Redemption	Certain of the Bonds are subject to optional, mandatory sinking fund and extraordinary optional redemption prior to maturity. (See "REDEMPTION OF THE BONDS" herein.)
Bond Ratings	1995 Series A Bonds: Moody's Investors Service, Inc.: "Aaa" Standard & Poor's Ratings Group: "AAA" Fitch Investors Service, Inc.: "AAA" 1995 Series B Bonds: Moody's Investors Service, Inc.: "Aaa" Standard & Poor's Ratings Group: "AAA"
Trustee & Paying Agent	PNC Bank, National Association, Pittsburgh, Pennsylvania.

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THE PITTSBURGH WATER AND SEWER AUTHORITY

$89,850,000
Water and Sewer System First Lien Revenue Bonds, Series A of 1995

$103,020,000
Water and Sewer System Subordinate Revenue Bonds, Series B of 1995

INTRODUCTION

The purpose of this Official Statement, which includes this introductory statement, the cover page and appendices hereto, is to set forth certain information pertaining to The Pittsburgh Water and Sewer Authority (the "Authority"), a body corporate and politic duly created and existing under the Pennsylvania Municipality Authorities Act of 1945 (P.L. 382), as amended, 53 P.S. § 301 et seq. (the "Act"), and to the issuance by the Authority of $89,850,000 aggregate principal amount, Water and Sewer System First Lien Revenue Bonds, Series A of 1995 (the "1995 Series A Bonds") and $103,020,000 aggregate principal amount, Water and Sewer System Subordinate Revenue Bonds, Series B of 1995 (the "1995 Series B Bonds" or "Subordinate Bonds", and together with the 1995 Series A Bonds, the "Bonds"). The 1995 Series A Bonds are being issued pursuant to a Trust Indenture between the Authority and PNC Bank, National Association, as trustee (the "Trustee"), dated as of October 15, 1993 as supplemented by the First Supplemental Indenture dated as of July 15, 1995 (together, the "First Lien Indenture") in order to pay for capital improvements to the Authority's Water and Sewer System. (See "THE CAPITAL IMPROVEMENT PROGRAM" herein.) The 1995 Series B Bonds are being issued pursuant to a Subordinate Trust Indenture, dated as of July 15, 1995 between the Authority and PNC Bank, National Association, as Trustee (the "Subordinate Indenture", and together with the First Lien Indenture, the "Indentures") in order to pay certain obligations of the Authority to the City of Pittsburgh (the "City") under a Capital Lease Agreement dated as of July 15, 1995 (the "Capital Lease Agreement"). (See "OWNERSHIP AND OPERATIONS" herein.)

The Authority was established in February 1984 by the City for the purpose of assuming responsibility for the operation of the City's water supply, 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. The Lease and Management Agreement will be terminated and the Authority will acquire the portion of the Water and Sewer System owned by the City pursuant to the Capital Lease Agreement. (See "OWNERSHIP AND OPERATIONS" herein.)

The Water and Sewer System provides water to approximately 84,000 customers and sewage service to a population of approximately 550,000. The Water and Sewer System does not include wastewater treatment facilities; such facilities are the responsibility of Allegheny County Sanitary Authority, 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 issued by the 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.

Membership

The Board of the Authority consists of seven (7) 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 present members of the Board and officers of the Authority, their terms and their principal private affiliations are as follows:

Member	Occupation	Term Expires (First Monday of January)
Joseph Preston Jr. Chairman	Member, Pennsylvania General Assembly	1996
Eugene Ricciardi Vice-Chairman	Member, City Council City of Pittsburgh	1994*
Cliff Merkell Secretary	Treasurer, City of Pittsburgh	1996
Rowan A. Miranda, Ph.D. Treasurer	Budget Office Director, City of Pittsburgh	1998
Paul Hennigan Asst. Secretary-Treasurer	Director of Finance, City of Pittsburgh	1997
Ann J. Davis	Community Leader	1992*
Robert Provolt, Sr.	Union Representative	1995*

* Board members with expired terms have not been re-appointed nor have successors been named. They continue to serve until such time as a re-appointment or new appointment is made.

Organization

Glenn M. Cannon has been Executive Director of the Authority since June 1, 1992. Mr. Cannon has a Bachelor of Science Degree from Indiana University of Pennsylvania, a Master of Public Administration Degree from Carnegie Mellon University and a Juris Doctor Degree from the Duquesne University School of Law. Prior to his appointment as Executive Director he was the Director of the City of Pittsburgh Public Safety Department, one of several positions that he held within that department.

The Authority is organized into the four operating divisions of Administration, Distribution and Collection, Engineering and Treatment Processes. Each of these is managed by a Division Director.

The Division Director of Administration is Mr. Gerald R. O'Brien. Mr. O'Brien has a Bachelor of Science Degree and a Master of Business Administration Degree, both from Duquesne University. He is also a Certified Public Accountant.

Mr. David J. Walker is the Division Director for Distribution and Collection. He has a Bachelor of Arts Degree from Belmont Abbey College and professional certificates in Water System Operations, Leak Detection and Backflow Prevention.

Mr. J. Thomas Bruecken is Division Director for Engineering. Mr. Bruecken has a Bachelor of Science Degree from the University of Pittsburgh, a Master of Science Degree in Virology from the University of Michigan, a Doctor of Science in Bacteriology and Virology and a Doctor of Philosophy Degree in Biochemistry, both from the University of California at Berkeley.

Mr. John Hanna is the Director of the Treatment Process Division. He has a Bachelor of Science Degree in Mechanical Engineering from Point Park College.

OWNERSHIP AND OPERATIONS

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 provides that the Water and Sewer System is operated and maintained for the Authority, by the City, subject to the general supervision of the Authority. The Authority and the City intend to terminate the Lease and Management Agreement and provide that the Authority will acquire the Water and Sewer System pursuant to the terms of a Capital Lease Agreement. The Capital Lease Agreement, which has a term of 30 years, provides for payments totalling approximately $95,845,000 to be made to the City during the initial three years 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 will enter into a Cooperation Agreement, dated as of June 15, 1995 (the "Cooperation Agreement"). Pursuant to the Cooperation Agreement, the City will provide certain specified engineering, communications, vehicle maintenance, legal, information and financial services to the Authority on a fee for services basis and the Authority shall make 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 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 or September 1 of each year commencing March 1, 1996 (each an "Interest Payment Date"). Each Bond will be initially dated July 15, 1995, and thereafter will be dated as of its date of authentication and will bear interest from the March 1 or September 1, as the case may be, next preceding the date of such Bond to which interest has been paid unless the date of such Bond is an Interest Payment Date on which interest has been paid, in which event it shall bear interest as of such Interest Payment Date or, if dated prior to the first Record Date, which is February 15, 1996, in which event it shall bear interest from July 15, 1995.

The Bonds are payable as to principal at the principal corporate trust 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 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 holder 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 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 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 mandatory and optional redemption as described herein under the captions "Optional Redemption," "Mandatory Sinking Fund Redemption," and "Extraordinary Optional Redemption."

Book-Entry Only System

The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the Bonds. The Bonds will be issued as fully-registered bonds registered in the name of Cede & Co. (DTC's partnership nominee). One fully-registered bond will be issued for each maturity date of the Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC 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 securities that its participants (the "Participants") deposit with DTC. DTC also facilitates the settlement among Participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in Participants' accounts, thereby eliminating the need for physical movement of securities certificates. Direct Participants include securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations (the "Direct Participants"). DTC is owned by a number of its Direct Participants and by the New York Stock Exchange, Inc., the American Stock Exchange, Inc., and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as securities brokers and dealers, banks, and trust companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (the "Indirect Participants"). The Rules applicable to DTC and its Participants are on file with the Securities and Exchange Commission.

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 of each Bond ("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, but Beneficial Owners are 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 Bonds are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. The deposit of Bonds with DTC and their registration in the name of Cede & Co. effect no 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 Participants will remain responsible for keeping account of their holdings on behalf of their customers.

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 Cede & Co. 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. will consent or vote with respect to the Bonds. 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).

Principal and interest payments on the Bonds will be made to DTC. DTC's practice is to credit Direct Participants' accounts on payable date in accordance with their respective holdings shown on DTC's records unless DTC has reason to believe that it will not receive payment on payable date. 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 principal and interest to DTC is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

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

The Authority may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, bond certificates will be printed and delivered.

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.

In the event that the book-entry only system is discontinued, the following provisions would apply: Bonds may be exchanged for an equal aggregate principal amount of Bonds in other authorized denominations, upon surrender thereof at the principal corporate trust office of the Trustee. The transfer of Bonds may be registered on the books maintained by the Trustee for such purpose only upon the surrender thereof to the Trustee with a duly executed assignment in form satisfactory to the Authority and the Trustee. For every exchange or registration or transfer of Bonds, the Trustee may make a charge sufficient to reimburse it for any tax or other governmental charge required to be paid with respect to such exchange or registration or transfer of the Bonds. The Trustee shall not be required to register the transfer or exchange of any bond (i) during a period beginning at the opening of business fifteen (15) days before the day of the mailing of notice of redemption of the Bonds and ending at the close of business on the day of such mailing, (ii) at any time following the selection of such Bond, in whole or in part, for redemption, or (iii) during the period commencing on a Record Date and ending on the corresponding Interest Payment Date.

In the event that the book-entry only system is discontinued, principal and redemption price will be payable upon surrender of the Bonds at the corporate trust office of the Trustee.

REDEMPTION OF THE BONDS

Optional Redemption

(a) **1995 Series A Bonds.** The 1995 Series A Bonds maturing on or after September 1, 2006, 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, 2005. Any such redemption will be made at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date.

(b) **1995 Series B Bonds.** The 1995 Series B Bonds maturing on or after September 1, 2006 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, 2005. Any such redemption will be made at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date.

Mandatory Sinking Fund Redemption

(a) **1995 Series A Bonds.** The 1995 Series A Bonds maturing on September 1, 2018 are subject to mandatory sinking fund redemption, by lot, at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date, on the dates and in the principal amounts as follows:

Date (September 1)	Principal Amount
2016	$3,675,000
2017	$3,885,000
2018(maturity)	$4,100,000

The 1995 Series A Bonds maturing on September 1, 2022 are subject to mandatory sinking fund redemption, by lot, at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date, on the dates and in the principal amounts as follows:

Date (September 1)	Principal Amount
2019	$4,330,000
2020	$4,570,000
2021	$4,830,000
2022(maturity)	$5,100,000

The 1995 Series A Bonds maturing on September 1, 2025 are subject to mandatory sinking fund redemption, by lot, at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date, on the dates and in the principal amounts as follows:

Date (September 1)	Principal Amount
2023	$5,385,000
2024	$5,690,000
2025(maturity)	$6,010,000

(b) **1995 Series B Bonds.** The 1995 Series B Bonds maturing on September 1, 2020 are subject to mandatory sinking fund redemption, by lot, at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date, on the dates and in the principal amounts as follows:

Date (September 1)	Principal Amount
2016	$2,860,000
2017	$3,020,000
2018	$3,195,000
2019	$3,375,000
2020(maturity)	$3,570,000

The 1995 Series B Bonds maturing on September 1, 2025 are subject to mandatory sinking fund redemption, by lot, at a redemption price equal to 100% of the principal amount thereof plus accrued interest to the redemption date, on the dates and in the principal amounts as follows:

Date (September 1)	Principal Amount
2021	$3,770,000
2022	$3,990,000
2023	$4,215,000
2024	$4,460,000
2025(maturity)	$13,030,000

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 Indentures.

MUNICIPAL BOND INSURANCE

1995 Series A Bonds

Concurrently with the issuance of the 1995 Series A Bonds, Financial Guaranty Insurance Company ("Financial Guaranty") will issue its Municipal Bond New Issue Insurance Policy for the 1995 Series A Bonds (the "Policy"). The Policy unconditionally guarantees the payment of that portion of the principal of and interest on the 1995 Series A Bonds which has become due for payment, but shall be unpaid by reason of nonpayment by the Authority. Financial Guaranty will make such payments to State Street Bank and Trust Company, N.A., or its successor as its agent (the "Fiscal Agent"), on the later of the date on which such principal and interest is due or on the business day next following the day on which Financial Guaranty shall have received telephonic or telegraphic notice, subsequently confirmed in writing, or written notice by registered or certified mail, from an owner of 1995 Series A Bonds or the Paying Agent of the nonpayment of such amount by the Authority. The Fiscal Agent will disburse such amount due on any 1995 Series A Bond to its owner upon receipt by the Fiscal Agent of evidence satisfactory to the Fiscal Agent of the owner's right to receive payment of the principal and interest due for payment and evidence, including any appropriate instruments of assignment, that all of such owner's rights to payment of such principal and interest shall be vested in Financial Guaranty. The term "nonpayment" in respect of a 1995 Series A Bond includes any payment of principal or interest made to an owner of a 1995 Series A Bond which has been recovered from such owner pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction.

The Policy is non-cancellable and the premium will be fully paid at the time of delivery of the 1995 Series A Bonds. The Policy covers failure to pay principal of the 1995 Series A Bonds on their respective stated maturity dates, or dates on which the same shall have been duly called for mandatory sinking fund redemption, and not on any other date on which the 1995 Series A Bonds may have been otherwise called for redemption, accelerated or advanced in maturity, and covers the failure to pay an installment of interest on the stated date for its payment.

This Official Statement contains a section regarding the ratings assigned to the 1995 Series A Bonds and references should be made to such section for a discussion of such ratings and the basis for their assignment to the 1995 Series A Bonds. Reference should be made to the description of the Authority and the 1995 Series A Bonds for a discussion of the ratings, if any, assigned to such entity's outstanding parity debt that is not secured by credit enhancement and the circumstances, if any, under which the Authority is required to provide additional or substitute credit enhancement, and related matters.

The Policy is not covered by the Property/Casualty Insurance Security Fund specified in Article 76 of the New York Insurance Law.

Financial Guaranty is a wholly-owned subsidiary of FGIC Corporation (the "Corporation"), a Delaware holding company. The Corporation is a subsidiary of General Electric Capital Corporation ("GE Capital"). Neither the Corporation nor GE Capital is obligated to pay the debts of or the claims against Financial Guaranty. Financial Guaranty is a monoline financial guaranty insurer domiciled in the State of New York and subject to regulation by the State of New York Insurance Department. As of March 31, 1995, the total capital and surplus of Financial Guaranty was approximately $962,700,000. Financial Guaranty prepares financial statements on the basis of both statutory accounting principles and generally accepted accounting principles. Copies of such financial statements may be obtained by writing to Financial Guaranty at 115 Broadway, New York, New York 10006, Attention: Communications Department (telephone number: (212) 312-3000) or to the New York State Insurance Department at 160 West Broadway, 18th Floor, New York, New York 10013, Attention: Financial Condition Property/Casualty Bureau (telephone number: (212) 602-0389).

1995 Series B Bonds

Bond Insurance Policy

Concurrently with the issuance of the 1995 Series B Bonds, Financial Security Assurance Inc. ("Financial Security") will issue its Municipal Bond Insurance Policy for the 1995 Series B Bonds (the "Policy"). The Policy unconditionally guarantees the payment of that portion of the principal of and interest on the 1995 Series B Bonds that has become due for payment, but shall be unpaid by reason of nonpayment by the Authority. On the later of the day on which such principal and interest is due or on the business day next following the business day on which Financial Security shall have received notice by telephone or telecopy, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner of 1995 Series B Bonds, the Trustee or the Paying Agent (as defined in the Policy), of the nonpayment of such amount by the Authority, Financial Security will disburse such amount due on any 1995 Series B Bonds to the Trustee or the Paying Agent, for the benefit of the Owners or, at the election of Financial Security, directly to each Owner, in either case upon

receipt by Financial Security in form reasonably satisfactory to it of (a) evidence of the Owner's right to receive payment of the principal and interest that is due for payment and (b) evidence, including any appropriate instruments of assignment, that all of such Owner's rights to payment of such principal and interest shall be vested in Financial Security. The term "nonpayment" in respect of a 1995 Series B Bond includes any payment of principal or interest that is insured by Financial Security made to an Owner of a 1995 Series B Bond that has been recovered from such Owner pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction.

The Policy is non-cancelable and the premium will be fully paid at the time of delivery of the 1995 Series B Bonds. The Policy covers failure to pay principal of the 1995 Series B Bonds on their respective stated maturity dates, or dates on which the same shall have been duly called for mandatory sinking fund redemption, and not on any other date on which the 1995 Series B Bonds may have been called for redemption, acceleration or other advancement of maturity, unless Financial Security shall elect, in its sole discretion, to pay such principal due upon acceleration together with any interest accrued to the date of acceleration, and covers the failure to pay an installment of interest on the stated date for its payment. Payment by Financial Security of principal due upon acceleration and interest accrued to the accelerated maturity date (to the extent unpaid by the Authority) shall fully discharge Financial Security's obligations under the Policy.

Financial Security may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of the Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (i) copies of all notices required to be delivered to Financial Security pursuant to the Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to Financial Security and shall not be deemed received until received by both and (ii) all payments required to be made by Financial Security under the Policy may be made directly by Financial Security or by the Insurer's Fiscal Agent on behalf of Financial Security.

The Insurer's Fiscal Agent is the agent of Financial Security only and the Insurer's Fiscal Agent shall in no event be liable to Owners of the 1995 Series B Bonds for any acts of the Insurer's Fiscal Agent or any failure of Financial Security to deposit or cause to be deposited sufficient funds to make payments due under the Policy.

Under the Policy, Financial Security will, to the extent permitted by applicable law, waive, only for the benefit of the Owners of 1995 Series B Bonds, all rights and defenses that might otherwise have been available to Financial Security to avoid payment of its obligations under the Policy in accordance with its terms.

THE POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

Financial Security Assurance Inc.

Financial Security is a wholly owned subsidiary of Financial Security Assurance Holdings Ltd. ("Holdings"), a New York Stock Exchange listed company. Holdings is owned approximately 61.5% by U S WEST Capital Corporation ("U S WEST"), 9.5% by Fund American Enterprises Holdings, Inc. ("Fund American"), and 7.5% by The Tokio Marine and Fire Insurance Co., Ltd. ("Tokio Marine"). U S WEST is a subsidiary of U S WEST, Inc., which operates businesses involved in communications, data solutions, marketing services and capital assets, including the provision of telephone services in 14 states in the Western and Midwestern United States. Fund American is a financial services holding company whose principal operating subsidiary is one of the nation's largest mortgage servicers. Tokio Marine is a major Japanese property and casualty insurance company. U S WEST has announced its intention to dispose of its remaining interest in Holdings as part of its strategic plan to withdraw from businesses not directly involved in telecommunications. Fund American has certain rights to acquire and vote additional shares of Holdings from U S WEST and Holdings. No shareholder of Holdings is obligated to pay any debt of Financial Security or any claim under any insurance policy issued by Financial Security or to make any additional contribution to the capital of Financial Security.

Financial Security is domiciled in the State of New York and is subject to regulation by the State of New York Insurance Department. At March 31, 1995, Financial Security's total policyholders' surplus and contingency reserves were approximately $469,190,000 and its total unearned premium reserve was approximately $248,929,000 in accordance with statutory accounting principles. At March 31, 1995, Financial Security's total shareholders' equity was approximately $557,421,000 and its total net unearned premium reserve was approximately $217,048,000 in accordance with generally accepted accounting principles.

The financial statements of Financial Security included in, or as exhibits to, the following documents, which have been filed with the Securities and Exchange Commission by Financial Security Assurance Holdings Ltd. ("Holdings"), are hereby incorporated by reference in this Official Statement:

(a) Annual Report on Form 10-K for the year ended December 31, 1994, and

(b) Quarterly Report on Form 10-Q for the period ended March 31, 1995.

All financial statements of Financial Security included in documents filed by Holdings pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Official Statement and prior to the termination of the offering of the Bonds shall be deemed to be incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents.

Copies of Financial Security's financial statements may be obtained by writing to Financial Security at 350 Park Avenue, New York, New York 10022, Attention: Communications Department. Financial Security's telephone number is (212) 826-0100.

Financial Security's claims-paying ability is rated "Aaa" by Moody's Investors Service, Inc. and "AAA" by Standard & Poor's Ratings Group. Such ratings reflect only the views of the respective rating agencies, are not recommendations to buy, sell or hold securities and are subject to revision or withdrawal at any time by such rating agencies.

The Policy does not protect investors against changes in market value of the 1995 Series B Bonds. The market value of the 1995 Series B Bonds may be impaired as a result of changes in prevailing interest rates, changes in applicable ratings or other causes.

Financial Security makes no representation regarding the 1995 Series B Bonds or the advisability of investing in the 1995 Series B Bonds. Financial Security makes no representation regarding the Official Statement, nor has it participated in the preparation thereof, except that Financial Security has provided to the Authority the information presented under this caption for inclusion in the Official Statement.

ESTIMATED SOURCES AND USES OF FUNDS

The 1995 Series A Bonds are being issued to pay for improvements to the Authority's Water and Sewer System (see "THE CAPITAL IMPROVEMENT PROGRAM" herein), to fund a reserve fund and to pay for all costs of issuance, including the bond insurance premiums, with respect to the Bonds. The 1995 Series B Bonds are being issued to pay certain contractual obligations of the Authority to the City under the Capital Lease Agreement (see "OWNERSHIP AND OPERATIONS" herein) and to fund a reserve fund.

Sources:	
Net Proceeds of the Sale of the Bonds	$189,198,908.90
Accrued Interest	339,550.67
Total	$189,538,459.57
Uses:	
Deposit to Acquisition Fund	92,862,666.60
Deposit to 1995 Capital Project Fund	80,000,000.00
Deposit to Debt Service Reserve Fund – 1995 Series A Bonds	6,352,000.00
Deposit to Debt Service Reserve Fund – 1995 Series B Bonds	8,282,000.00
Deposit to Debt Service Fund – 1995 Series A Bonds (Accrued Interest)	159,806.83
Deposit to Debt Service Fund – 1995 Series B Bonds (Accrued Interest)	179,743.83
Costs of Issuance	1,702,242.31(1)
Total	$189,538,459.57

(1) Includes: Bond insurance premium, legal fees, Trustee's fees, financial advisor's fee, certified public accountant's fee, printing costs and miscellaneous fees and expenses.

INVESTMENT AGREEMENTS AND OTHER INSTRUMENTS

The Authority may, with the approval of the respective Bond Insurers, enter into one or more investment agreements or other instruments with respect to moneys on deposit in the 1995 Capital Project Fund, Acquisition Fund, Debt Service Funds and/or Debt Service Reserve Funds.

DEBT SERVICE REQUIREMENTS

In addition to the Bonds, the Authority currently has outstanding the 1993 Series A Bonds in the aggregate principal amount of $270,475,000 and the 1993 Series B Bonds in the aggregate principal amount of $10,785,000 (the "Prior Bonds"). The following schedule sets forth the debt service requirements on all outstanding bonds of the Authority.

Year	Prior Bonds			1995 Series A Bonds			1995 Series B Bonds			Total
September 1	Principal	Interest	Subtotal	Principal	Interest	Subtotal	Principal	Interest	Subtotal	Debt Service
1995	4,355,000.00	13,908,205.00	18,263,205.00	0.00	0.00	0.00	0.00	0.00	0.00	18,263,205.00
1996	5,945,000.00	13,760,135.00	19,705,135.00	0.00	5,406,797.86	5,406,798.86	2,035,000.00	6,081,333.03	8,116,333.03	33,228,265.89
1997	6,865,000.00	13,552,060.00	20,417,060.00	0.00	4,794,205.00	4,794,205.00	2,575,000.00	5,310,915.00	7,885,915.00	33,097,180.00
1998	8,550,000.00	13,294,622.50	21,844,622.50	1,555,000.00	4,794,205.00	6,349,205.00	2,505,000.00	5,207,915.00	7,712,915.00	35,906,742.50
1999	8,885,000.00	12,961,172.50	21,846,172.50	1,615,000.00	4,732,005.00	6,347,005.00	2,490,000.00	5,107,715.00	7,597,715.00	35,790,892.50
2000	9,245,000.00	12,605,772.50	21,850,772.50	1,685,000.00	4,665,386.25	6,350,386.25	2,590,000.00	5,005,625.00	7,595,625.00	35,796,783.75
2001	9,635,000.00	12,212,860.00	21,847,860.00	1,755,000.00	4,593,773.75	6,348,773.75	3,130,000.00	4,895,550.00	8,025,550.00	36,222,183.75
2002	10,065,000.00	11,788,920.00	21,853,920.00	1,830,000.00	4,516,992.50	6,346,992.50	3,490,000.00	4,758,612.50	8,248,612.50	36,449,525.00
2003	10,505,000.00	11,335,995.00	21,840,995.00	1,915,000.00	4,436,472.50	6,351,472.50	3,650,000.00	4,601,562.50	8,251,562.50	36,444,030.00
2004	11,000,000.00	10,852,765.00	21,852,765.00	2,000,000.00	4,350,297.50	6,350,297.50	3,830,000.00	4,433,662.50	8,263,662.50	36,466,725.00
2005	11,515,000.00	10,335,765.00	21,850,765.00	2,090,000.00	4,257,797.50	6,347,797.50	4,025,000.00	4,253,652.50	8,278,652.50	36,477,215.00
2006	12,060,000.00	9,788,802.50	21,848,802.50	2,190,000.00	4,157,477.50	6,347,477.50	4,225,000.00	4,060,452.50	8,285,452.50	36,481,732.50
2007	12,640,000.00	9,209,922.50	21,849,922.50	2,300,000.00	4,047,977.50	6,347,977.50	3,980,000.00	3,849,202.50	7,829,202.50	36,027,102.50
2008	13,260,000.00	8,590,562.50	21,850,562.50	2,415,000.00	3,932,977.50	6,347,977.50	2,800,000.00	3,646,222.50	6,446,222.50	34,644,762.50
2009	13,920,000.00	7,927,562.50	21,847,562.50	2,540,000.00	3,807,397.50	6,347,397.50	1,965,000.00	3,500,622.50	5,465,622.50	33,660,582.50
2010	14,620,000.00	7,231,562.50	21,851,562.50	2,675,000.00	3,672,777.50	6,347,777.50	2,070,000.00	3,396,477.50	5,466,477.50	33,665,817.50
2011	15,350,000.00	6,500,562.50	21,850,562.50	2,820,000.00	3,531,002.50	6,351,002.50	2,180,000.00	3,284,697.50	5,464,697.50	33,666,262.50
2012	16,345,000.00	5,502,812.50	21,847,812.50	2,970,000.00	3,378,722.50	6,348,722.50	2,300,000.00	3,164,797.50	5,464,797.50	33,661,332.50
2013	17,410,000.00	4,440,387.50	21,850,387.50	3,130,000.00	3,218,342.50	6,348,342.50	2,425,000.00	3,038,297.50	5,463,297.50	33,662,027.50
2014	18,540,000.00	3,308,737.50	21,848,737.50	3,305,000.00	3,046,192.50	6,351,192.50	2,565,000.00	2,902,497.50	5,467,497.50	33,667,427.50
2015	19,425,000.00	2,428,087.50	21,853,087.50	3,485,000.00	2,864,417.50	6,349,417.50	2,705,000.00	2,758,857.50	5,463,857.50	33,666,362.50
2016	20,340,000.00	1,505,400.00	21,845,400.00	3,675,000.00	2,672,742.50	6,347,742.50	2,860,000.00	2,607,377.50	5,467,377.50	33,660,520.00
2017	1,325,000.00	539,250.00	1,864,250.00	3,885,000.00	2,466,942.50	6,351,942.50	3,020,000.00	2,444,357.50	5,464,357.50	13,680,550.00
2018	1,390,000.00	473,000.00	1,863,000.00	4,100,000.00	2,249,382.50	6,349,382.50	3,195,000.00	2,272,217.50	5,467,217.50	13,679,600.00
2019	1,460,000.00	403,500.00	1,863,500.00	4,330,000.00	2,019,782.50	6,349,782.50	3,375,000.00	2,090,102.50	5,465,102.50	13,678,385.00
2020	1,535,000.00	330,500.00	1,865,500.00	4,570,000.00	1,777,302.50	6,347,302.50	3,570,000.00	1,897,727.50	5,467,727.50	13,680,530.00
2021	1,610,000.00	253,750.00	1,863,750.00	4,830,000.00	1,521,382.50	6,351,382.50	3,770,000.00	1,694,237.50	5,464,237.50	13,679,370.00
2022	1,690,000.00	173,250.00	1,863,250.00	5,100,000.00	1,250,902.50	6,350,902.50	3,990,000.00	1,477,462.50	5,467,462.50	13,681,615.00
2023	1,775,000.00	88,750.00	1,863,750.00	5,385,000.00	965,302.50	6,350,302.50	4,215,000.00	1,248,037.50	5,463,037.50	13,677,090.00
2024				5,690,000.00	661,050.00	6,351,050.00	4,460,000.00	1,005,675.00	5,465,675.00	11,816,725.00
2025				6,010,000.00	339,565.00	6,349,565.00	13,030,000.00	749,225.00	13,779,225.00	20,128,790.00
Total	$281,260,000.00	$205,304,672.50	$486,564,672.50	$89,850,000.00	$98,129,572.86	$187,979,572.86	$103,020,000.00	$100,745,088.03	$203,765,088.03	$878,309,333.39

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 a general 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 pursuant to its limited obligation) 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 1995 Series A Bonds are secured on a parity with the Authority's Prior Bonds. The 1995 Series A Bonds together with the Prior Bonds and any additional bonds which are hereafter issued pursuant to the First Lien Indenture (the "First Lien Bonds") are secured, on a parity, by a first lien pledge of the Receipts and Revenues 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 "Summary of Indentures" – Appendix A herein.)

The 1995 Series B Bonds are secured by a subordinate lien on the Receipts and Revenues of the Water and Sewer System, after payment of Current Expenses, together with cash and investments from time to time held in certain funds pursuant to the Subordinate Indenture. The lien on the Receipts and Revenues is subordinate to the lien securing the First Lien Bonds and to payments due to the surety provider with respect to the surety bond held in the Debt Service Reserve Fund pursuant to the First Lien Indenture. (See "FLOW OF FUNDS" herein.)

Debt Service Reserve Fund and Insurance

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, $6,352,000.00 will be deposited to the Debt Service Reserve Fund of the First Lien Indenture.

Financial Guaranty has issued a Municipal Bond Debt Service Reserve Fund Policy (the "Reserve Policy") in the amount of the maximum annual debt service requirements on the Prior Bonds. The Reserve Policy is non-cancelable and the premium was fully paid at the time of delivery of the Prior Bonds. The Reserve Policy covers failure to pay principal of the First Lien Bonds on their respective stated maturity dates, or dates on which the same shall have been called for mandatory sinking fund redemption, and not on any other date on which the First Lien Bonds may have been accelerated, and covers the failure to pay interest on the stated due date. The Reserve Policy shall terminate on the earlier of the final maturity date of the First Lien Bonds and the date on which First Lien Bonds are no longer outstanding under the First Lien Indenture.

Upon issuance of the Bonds, $8,282,000.00 will be deposited to the Debt Service Reserve Fund of the Subordinate Indenture. The Subordinate Indenture requires that moneys in the Debt Service Reserve Funds of the Indentures be not less than the maximum annual debt service on the First Lien Bonds together with the Subordinate Bonds.

Payments of principal and interest on the 1995 Series A Bonds when due will be insured by a municipal bond insurance policy to be issued by Financial Guaranty Insurance Company simultaneously with the issuance of the 1995 Series A Bonds. Payments of principal and interest on the 1995 Series B Bonds when due will be insured by a municipal bond insurance policy to be issued by Financial Security Assurance Inc. (See "MUNICIPAL BOND INSURANCE" herein.)

Additional Debt

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

The Authority may issue additional bonds on a parity basis with the Subordinate Bonds for any lawful purposes of the Authority, upon satisfaction of the conditions set forth in the Subordinate Indenture.

Covenants of the Authority

Under the Indentures, 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 Indentures" – Appendix A herein.) (Also, see "RATE COVENANT" herein.)

Events of Defaults and Remedies

Events of Default under the Indentures include, among other things: (1) the failure to pay principal of or interest on First Lien Bonds and/or Subordinate Bonds when due; (2) the entry of an order or decree appointing a receiver of the Water and Sewer System or of the Receipts and Revenues, that is not vacated, discharged or stayed on appeal within ninety (90) days; (3) the institution of a proceeding the purpose of which is to effect a compromise between the Authority and its creditors; (4) a default by the Authority in the observance of any covenant contained in the Indentures which continues for a period of sixty (60) days after written notice of such default has been given by the Trustee, provided, however, that failure to meet the rate covenant shall not constitute an event of default under the Indentures. A Trustee is not required to give notice of an Event of Default to the Authority or to take any action with respect to the same, unless it receives a written request of the owners of at least 25% in aggregate principal amount of bonds outstanding.

Upon the occurrence or continuance of an Event of Default with respect to First Lien Bonds, the Trustee for the First Lien Bonds may (1) declare the First Lien Bonds immediately due and payable, (2) enter into and take possession of the Water and Sewer System, or (3) commence appropriate judicial proceedings, each upon the conditions set forth in the First Lien Indenture.

Upon the occurrence or continuance of an Event of Default with respect to the Subordinate Bonds, the Trustee for the Subordinate Bonds has the right to judicially seek specific performance with respect to enforcement of the rate covenant and may exercise other remedies, including acceleration of principal, only if the Trustee for the First Lien Bonds shall have first done so. (See "Summary of Indentures" – Appendix A herein.)

FLOW OF FUNDS

The Authority has heretofore established a special fund (the "Revenue Fund") into which it deposits its Receipts and Revenues. 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 – First Lien Indenture*

   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 Fund — First Lien Indenture*

   On the first day of each month in which there is a deficiency in the Debt Service Reserve Fund/Operating Reserve Fund of the First Lien Indenture or if there has been a draw on the surety bond held in the Debt Service Reserve Fund of the First Lien Indenture, amounts sufficient to repay any deficiency or repay any such draw, together with expenses due, (the "Policy Costs") in not more than 12 equal monthly payments shall be transferred, as applicable, to the Debt Service Reserve Fund or the Operating Reserve Fund held pursuant to the First Lien Indenture or paid to the surety provider.

4. *Renewal and Replacement Fund – First Lien Indenture*

   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 First Lien Indenture.

5. *Debt Service Fund/Debt Service Reserve Fund – Subordinate Indenture*

   After making the foregoing transfers, on the first day of each month moneys shall be transferred:

   (a) to the Debt Service Fund of the Subordinate Indenture in an amount equal to 1/6th of the interest and 1/12th of the principal to come due on the Subordinate Bonds on the next interest payment or principal payment date, and

   (b) to the Debt Service Reserve Fund of the Subordinate Indenture to the extent there is a deficiency therein, in an amount sufficient to repair any deficiency in not more than 12 equal monthly payments.

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 Indentures, the Authority has covenanted with the owners of the First Lien Bonds and the Subordinate Bonds to adopt rates complying with either of the following in each fiscal year:

(1) The Authority will maintain, charge and collect, so long as any of the First Lien Bonds or Subordinate 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;

   (b) An amount equal to 120% of the debt service requirements with respect to the First Lien Bonds and Subordinate Bonds for the current fiscal year; or,

(2) The Authority will maintain, charge and collect, so long as any of the First Lien Bonds and Subordinate 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 First Lien Bonds and Subordinate Bonds or are applied directly to payment of debt service on First Lien Bonds and Subordinate Bonds), shall be at all times at least sufficient to provide annually:

   (a) Funds to pay all of the Current Expenses;

   (b) An amount equal to 100% of the debt service requirements with respect to the First Lien Bonds and Subordinate Bonds for the current fiscal year.

Calculation of compliance with the covenant shall be made on the following basis (a) operating revenue, construction fund income, earnings on the Debt Service Reserve Fund, and expenses, including 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 First Lien Bonds and Subordinate Bonds may be treated as if such amounts are amortized over the life of the First Lien Bonds and Subordinate Bonds irrespective of any shorter period over which such costs are actually amortized; and (c) depreciation is specifically excluded from the calculation. Gross revenues shall be reduced by the amount of any payment then due and owing with respect to the surety bond held in the Debt Service Reserve Fund of the First Lien Indenture.

The Authority also covenants with the holders of the First Lien Bonds and Subordinate Bonds that if at any time the revenues collected shall not be sufficient to enable the Authority to comply with the rate covenant, it will promptly revise its water and 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 Indentures will be remedied before the end of the next ensuing fiscal year.

THE WATER AND SEWER SYSTEM

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 three to five days of normal water usage. In the opinion of the Authority's Consulting Engineer, Chester Environmental, the Water System's treated water quality exceeds all the current standards and levels of the Safe Drinking Water Act and the Pennsylvania Department of Environmental Resources ("DER").

The sole source of water for the Water System is the Allegheny River. The DER issued the Authority a Water Allocation Permit in March 1989. This permit is for 100 million gallons per day; however, DER has advised that they would reevaluate this allocation in the future in the event the Authority's demand increases as a result of growth within the City or through

the sale of water to surrounding municipalities. The current average withdrawal of water from the Allegheny River is approximately 65 million gallons per day, and the maximum withdrawal made on any one day was approximately 90 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.

The Water System currently provides approximately 82,000 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 customers within the City with the balance served by three independent water purveyors.

In 1994, the total amount of water supplied by the Authority was approximately 24 billion gallons, an average of 65 million gallons per day. Approximately 2 billion gallons, or nearly 5.5 million gallons per day, were sold to several adjacent municipalities for resale to customers within their service areas. In September 1986, the Authority entered into an agreement with the Pennsylvania-American Water Company for the Authority to supply up to twelve million gallons of water per day to the Pennsylvania-American Water Company for their use and resale to their customers. The agreement provides for a minimum billing for 4 million gallons per day. The Pennsylvania-American Water Company is currently buying 4 million gallons per day. The initial term of the agreement will expire in September, 1996, but by its terms the agreement will automatically be extended for an additional 5-year term unless Pennsylvania-American Water Company gives notice by September, 1995.

No other material decreases in customers or water usage are anticipated in the foreseeable future; however, the Authority is attempting to market its excess supply of water. (See "Consulting Engineer's Report" – Appendix A, p.I-3 herein.)

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 Proposed Capital Improvement Program. (See "THE CAPITAL IMPROVEMENT PROGRAM" herein.)

The Sewer System

The wastewater collection system (the "Sewer System") is part of a regional system which provides service to about 550,000 people, of which nearly 370,000 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 1,100 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 is operating in compliance with 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 do not 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 connection 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. Many of these conditions have been or will be eliminated through the implementation of the Proposed Capital Improvement Program.

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. With the continuation of the Capital Improvement Program, the Sewer System will be sufficient to meet foreseeable future demands and provide uninterrupted service to its users.

Description of 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 C.

Water and Sewer Rates

The following tables present the Authority's Water and Sewer Rates and certain data with respect thereto. The data have been derived from the books and records of the Authority and the City.

Water and Sewer Rates[1]

Year	Residential		Commercial		Industrial		Wholesale[2]	
	Rate	Increase[3]	Rate	Increase[3]	Rate	Increase[3]	Rate	Increase[3]
1988	$2.30	18 %	$2.28	18 %	$2.12	18 %	$1.98	18 %
1989	2.42	5	2.39	5	2.23	5	2.08	5
1990	2.54	5	2.51	5	2.34	5	1.71	-18
1991	2.67	5	2.64	5	2.46	5	1.80	5
1992	2.90	8.5	2.86	8.5	2.67	8.5	1.95	8.5
1993	3.00	3.5	2.96	3.5	2.76	3.5	2.02	3.5
1994	3.12	4	3.08	4	2.87	4	2.10	4
1995	3.42	9.5	3.37	9.5	3.14	9.5	2.30	9.5

(1) Rate per 1,000 gallons over minimum use per quarter.
(2) Up to 500,000 gallons
(3) Represents percentage increase over prior year

1994 Water Consumption by Customer Classification[1]

Classification	Customers	Percentage of Usage
Residential	75,735	48%
Commercial	5,835	26
Industrial	184	10
Wholesale	22	5
Pennsylvania American Water	1	12
TOTAL	81,777	100%

(1) Excludes customers of other water purveyors

Residential customers are the Water System's major block of customers. The "Commercial" category includes water usage by schools, hospitals and various units of government.

A detailed analysis of historical water consumption prepared by the Authority indicates that consumption in any one quarter differed by no more than 3% from the mean consumption level. Therefore, seasonal variability is not a significant factor in water consumption nor in the Water and Sewer System's revenue stream.

1994 Water Rate Survey of Major Area Suppliers[1]

		Rate 1,000 Gal.	Minimum Charge	Minimum Gallons	Average Charge 20,000 Gal. Per Quarter
1.	Moon Township Water Authority	$2.00	$18.00	9,000	$40.00
2.	Shaler Township Water Authority	2.25	6.76	3,000	45.00
3.	Oakmont Boro Municipal Authority – Basic	1.75	21.42	3,000	51.17
4.	Sharpsburg Water Works	2.70	8.00	4,000	51.20
5.	Plum Borough[2]	2.61	21.10	5,625	58.62
6.	Etna Borough	3.00	18.00	6,000	60.00
7.	Oakmont Boro Municipal Authority – Repump	2.31	23.52	3,000	62.79
8.	Wilkinsburg-Penn Joint Water Authority[2]	3.48	24.09	8,000	65.85
9.	Monroeville Water Authority	3.10	32.88	6,000	76.28
10.	West View Municipal Authority[2]	2.38	31.05[3]	0	78.65
11.	PITTSBURGH WATER AND SEWER AUTHORITY	3.42	25.41	4,000	80.13
12.	Reserve Township	4.15	18.60	4,000	85.00
13.	Millvale Water Works	4.45	22.25	5,000	89.00
14.	Aspinwall Borough	4.75	0	0	95.00
15.	Pennsylvania American Water Company[2]	3.71	25.20[3]	0	99.40
16.	Blawnox Borough	4.70	14.10	0	108.10
17.	Westmoreland Authority	5.48	36.72	6,000	113.44
18.	Harmar Water Authority	5.35	20.00	2,000	116.30
19.	McKeesport Municipal Water Authority	5.83	11.66	2,000	116.60
20.	Fox Chapel Water Authority	5.50	10.00	0	120.00

Source: Chester Environmental (April 1, 1995)

(1) Water rates decline as the usage rises for West View and Oakmont.

(2) Rate per 100 cubic foot.

(3) Service charge; no minimum.

10 Largest Users

1. Housing Authority of Pittsburgh
2. University of Pittsburgh
3. LTV Steel
4. H.J. Heinz Company
5. Pittsburgh Allegheny County Thermal
6. Allegheny General Hospital
7. Allegheny County Sanitary Authority (ALCOSAN)
8. Pittsburgh Brewing Company
9. Allegheny County
10. Veteran's Administration Hospital

Source: Pittsburgh Water and Sewer Authority

Prospective Water Sales

The Authority has current excess delivery capacity of approximately 25 million gallons of potable water per day and the Authority is aggressively attempting to market the sale of water to municipalities and water authorities in the region. At the present time the Authority is negotiating with adjoining communities which, if successful, will result in long term agreements for the sale of 5.0 to 8.0 million gallons of water per day. These sales would provide revenues of 2.0 to 3.5 million dollars annually to the Authority.

Expenses of Operation

Salaries and related expenses account for approximately 21% of the 1995 budget for Current Expenses. In 1995, the Authority's budget provides for 271 positions as follows: 29 in billing and collections; 20 in administrative and accounting positions; 60 in purification and pumping, 132 in distribution and 10 in engineering. Payments to the City of Pittsburgh for services provided to the Authority under the Cooperation Agreement constitute approximately 21% of the 1995 budget for Current Expenses. Utilities amount to 11% of the 1995 Current Expense budget, primarily due to the electricity required to operate the treatment plant and pumping stations.

Financial Operations

The following table prepared by the Authority sets forth the results of financial operations for the years 1990 through 1994. Audited financial statements for 1994 appear in Appendix B herein.

FIVE-YEAR FINANCIAL HISTORY

(Dollars expressed in thousands)

	1990	1991	1992	1993	1994
Operating Revenue:					
Residential, commercial, and industrial water sales and other	$37,952	$40,165	$43,035	$47,282	$50,210
Utility water sales	2,464	2,602	2,824	2,917	3,109
Total operating revenue	40,416	42,767	45,859	50,199	53,319
Operating Expenses:					
Operating expenses reimbursed to the City:					
Water Department direct expenses	15,101	14,630	15,015	15,885	14,936
Sewer direct and indirect expenses	2,768	4,251	4,272	4,046	3,651
City indirect cost allocation	5,030	4,544	4,827	5,788	5,098
Assessment of City employee benefits	14,350	--	--	901	--
Operating lease within the City:					
Fixed lease payment	3,610	3,338	3,228	3,145	3,051
Additional payment	4,050	4,228	4,440	4,591	4,737
Subsidy of non-City water agency customers	2,392	2,915	2,819	2,808	2,715
Depreciation	1,936	2,571	3,166	3,840	4,206
General and administrative	537	745	659	826	770
Total operating expenses	49,774	37,222	38,426	41,830	39,164
Operating income	(9,358)	5,545	7,433	8,369	14,155
Other Revenue (Expense):					
Investment income	12,409	9,327	1,703	1,980	546
Interest expense	(13,984)	(14,812)	(9,863)	(12,324)	(12,536)
Other (net)	--	--	(1,021)	--	
Amortization of bond issue costs	(1,064)	(1,056)	(155)	(198)	(190)
Total other revenue (expense)	(2,639)	(6,541)	(9,336)	(10,542)	(12,180)
Income (loss) before extraordinary item	(11,997)	(996)	(1,903)	(2,173)	1,975
Extraordinary item:					
Gain on extinguishment of bonds	--	2,972	--	--	--
Net income (loss)	($11,997)	$ 1,976	($ 1,903)	($ 2,173)	$ 1,975
Annual debt service requirement					
Principal	$ 900	$ --	$ --	$ 4,445	$ 8,495
Interest	14,134	13,457	16,793	13,866	12,499
Total annual debt service requirement	$15,034	$13,457	$16,793	$18,311	$20,994

Source: Pittsburgh Water and Sewer Authority

DEBT SERVICE COVERAGE FORECAST

(in Thousands)

	1995	1996	1997	1998	1999
Cash Beginning of Year	$ 4,657	$ 7,742	$ 9,250	$ 10,569	$11,765
Operating Revenue	57,855	59,773	64,183	68,434	71,407
Interest Earnings	3,315	5,719	4,039	2,750	1,862
Transfer From Construction Fund	235	246	253	261	271
Total Available Funds	66,062	73,480	77,725	82,014	85,305
Operating Expenses	34,014	31,913	33,122	34,381	35,788
Net Available For Debt Service	32,048	41,567	44,603	47,633	49,517
Debt Service Requirements	18,263	33,228	33,097	35,097	35,791
Coverage Factor	1.75	1.25	1.35	1.33	1.38

Source: Chester Environmental Consulting Engineer's Report (See Appendix D)

Billings and Collections

Water customers are billed by the Authority based upon meter readings, estimated readings or on a flat basis, and revenues are collected by the Authority.

Historically, the City (which billed and collected as an agent of the Authority prior to January 1, 1995) has collected approximately 93% to 95% of water billings. The Authority has established a collection policy which provides for the filing of liens, the termination of services, and the taking of real property in the case of delinquent accounts.

The Authority is presently undertaking a new billing system (both hardware and software). This new billing system will enable the Authority to move to monthly billing for all accounts and will enhance the Authority's ability to manage accounts in the following areas: account aging, selection of delinquent accounts for terminations and collections, meter inventories, revenue forecasting and service work processing.

Employee Relations and Retirement System

The majority of employees of the Authority are represented by a labor organization under Act 195 of the Commonwealth of Pennsylvania. Blue collar employees are represented by the Pittsburgh Joint Collective Bargaining Committee and white collar employees are represented by the American Federation of State, County and Municipal Employees, Local 2719. 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 City (which employed the employees now employed by the Authority) had concluded numerous negotiations with these bargaining units without any labor stoppages. Three-year agreements with the American Federation of State, County and Municipal Employees unit, effective January 1, 1995, were reached in 1995 with salary increases of 3% on July 1, 1995, January 1, 1996 and January 1, 1997. A four-year agreement, effective January 1, 1995, was reached in 1995 with the Pittsburgh Joint Collective Bargaining Committee in 1995 with salary increases of 3% on July 1, 1995 and 3% on January 1 of each of the three following years.

Employees of the Authority are covered under the City's Municipal Pension Fund. Applicable municipal law requires that the Authority be responsible for its proportionate share of the cost of providing pension benefits for Authority employees who formerly worked for the City. The Authority and the City, to date, have not resolved the Authority's ultimate liability with respect to the City's Municipal Pension Fund.

THE CAPITAL IMPROVEMENT PROGRAM

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

Funding for the Program is almost depleted. 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 Systems, additional funding is required for improvements to the Water and Sewer System (the "Proposed Capital Improvement Program"). In determining the funding requirements for the Proposed Capital Improvement Program, the following factors and conditions were considered:

- Identified improvements not currently funded.
- Rehabilitation and/or replacement of existing facilities which exceed their useful lives.
- Improvements required for sale of water to communities within the region.
- Water and Sewer System improvements required in association with planned City of Pittsburgh capital improvement projects and the Urban Redevelopment Authority of Pittsburgh planned redevelopment projects.
- Improvements required under current and anticipated safe drinking water standards.
- Implementation of combined sewer overflow controls as required by the U.S. Environmental Protection Agency.

Based upon the previously noted factors and conditions and evaluations of the existing Water and Sewer System, a Proposed Capital Improvement Program was developed which addresses the identified and anticipated needs of the Authority over the next six years (from mid 1995 to mid 2001).

The following is a summary of the total Proposed Capital Improvement Program to be funded with proceeds of the sale of the 1995 Series A Bonds.

Description	Estimated Cost
Water Distribution System	$10,850,000
Pumping and Storage Facilities	5,450,000
Water Treatment Plant	13,410,000
Miscellaneous Tools and Equipment	750,000
Miscellaneous Projects	2,500,000
Sewer System	18,625,000
City and URA Projects	9,045,000
Subtotal	$60,630,000
Engineering at 14%	8,900,000
Subtotal	$69,530,000
Contingencies at 15%	10,470,000
Totals	$80,000,000

For a more detailed description of the Proposed Capital Improvement Program, see "Consulting Engineer's Report", Section II – Appendix D herein.

FUTURE INDEBTEDNESS

The Authority will require future capital funding in order to achieve complete compliance with current drinking water regulations, promulgated by the Pennsylvania Safe Drinking Act (35 P.S.721.4). The Authority's current plans provide for covering Highland No. 1 Reservoir and Highland No. 2 Reservoir in the late 1990's. Funding of these two projects, as well as other future improvements necessary to meet the anticipated mandated water quality standards and continuation of repairs and improvements to the Water and Sewer System, will require the issuance of additional bonds at various times in the future.

The proceeds from the sale of the 1995 Series A Bonds are not expected to be used to pay the costs of covering the Highland No. 1 or Highland No. 2 reservoirs. The current regulations of the Pennsylvania Department of Environmental Resources ("DER") require that such reservoirs be covered by December 31, 1995, and the Authority is negotiating with the DER for an extension of such date. The Authority believes it will be granted such extension without being subject to the substantial penalties that may be assessed for non-compliance with such regulations.

LITIGATION

There is no litigation pending or threatened seeking to enjoin the issuance, sale or delivery of the Bonds or affecting the security pledged therefore.

There are no pending claims or actions against the Authority arising from the operation and maintenance of the Water and Sewer System, which, in the opinion of the Authority's Special Counsel, would have a material adverse effect on the Authority's financial position.

FINANCIAL STATEMENTS

The audited financial statements of the Authority have been included in Appendix B of this Official Statement for the period indicated in the report appearing in Appendix B, which report has not been updated since the period indicated therein.

ORIGINAL ISSUE DISCOUNT

The difference between the initial offering price to the public of the Bonds and the maturity value of the Bonds is treated as original issue discount which is, in effect, interest.

Because of the possibility of transfers prior to maturity, the Internal Revenue Code of 1986, as amended (the "Code") provides rules for the accrual of original issue discount on any tax-exempt obligation, including any securities issued as or in the form of the Bonds. Original issue discount on the Bonds is treated as accruing in the manner provided by the Code with respect to original issue discount on taxable securities, except that the rules with respect to acquisition premium that apply to taxable securities will not apply to tax-exempt securities. Generally, an appropriate portion (depending on the holding period of the Bond by each purchaser) of the total amount of original issue discount payable at the maturity of Bond will, upon disposition or payment of a Bond, be treated as interest, rather than taxable gain, for Federal income tax purposes. The portion so treated will be determined by allocating the original issue discount over the term of each Bond through a series of adjustments to the issue price for each bond period. The adjustment to the issue price for each bond period is determined by multiplying the adjusted issue price as increased by adjustments prior to the beginning of the bond period) by the applicability yield to maturity of such Bond.

Owners of Bonds should consult their own tax advisors with respect to the determination for Federal income tax purposes of interest accrued upon sale or redemption of such Bonds and with respect to the state and local tax consequences of owning Bonds.

TAX EXEMPTION AND OTHER TAX MATTERS

Federal Tax Exemption

As of the date of closing, Co-Bond Counsel will issue a legal opinion to the effect that under existing laws, regulations and judicial decisions, the interest (including any original issue discount properly allocable to a registered owner and treated as interest) on the Bonds (a) is excluded from gross income for federal income tax purposes and (b) is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations.

The interest on the Bonds, however, will be included in the "adjusted current earnings" (i.e., alternative minimum taxable income as adjusted for certain items including those items that would be included in the calculation of a corporation's earnings and profits under Subchapter C of the Code) of certain corporations, and such corporations are required to include in the calculation of alternative minimum taxable income 75 percent of the excess of such corporation's adjusted current earnings over its alternative minimum taxable income (determined without regard to this adjustment and prior to reduction for certain net operating losses).

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal tax purposes of interest on obligations such as the Bonds. The Authority has covenanted to comply with certain requirements designed to assure that interest paid on the Bonds will not become includable in gross income. Failure to comply with those covenants may result in interest paid on the Bonds being included in gross income from the date of issue of the Bonds. The opinion of Co-Bond Counsel assumes compliance with those covenants.

Although interest on the Bonds is excluded from gross income for federal income tax purposes, the accrual or receipt of such interest may otherwise affect the federal income tax liability of the recipient. The extent of these other tax consequences will depend upon the recipient's particular tax status or other items of income or deduction. Purchasers of the Bonds, particularly purchasers that are corporations (including Subchapter S corporations and foreign corporations operating branches in the United States and corporations subject to the environmental tax imposed by Section 59A of the Code), property or casualty insurance companies, banks, thrift or other financial institutions, certain recipients of Social Security or Railroad Retirement benefits are advised to consult their tax advisors as to the tax consequences of purchasing or holding the Bonds. Co-Bond Counsel express no opinion regarding such consequences.

Pennsylvania Tax Exemption

The opinion of Co-Bond Counsel also will state that under the laws of the Commonwealth of Pennsylvania, as presently enacted and construed, the Bonds are exempt from personal property taxes in Pennsylvania and the interest thereon is exempt from Pennsylvania personal income tax and from Pennsylvania corporation net income tax.

NOT ARBITRAGE BONDS

The Authority has covenanted in the Indentures with purchasers of the Bonds that it will make no use of the proceeds of such issue which, if such use reasonably had been expected on the date of issue of the Bonds, would have caused the Bonds to be arbitrage bonds; and has further covenanted in the Indentures to comply with the requirements of Section 148 of the Code, and the regulations thereunder, during the term of such issue. Officials of the Authority have executed a certificate concerning the use of the proceeds of the Bonds in conformity with regulations issued under Section 148 of the Code.

THE TRUSTEE

The obligations and duties of the Trustee are described in the Indentures and the Trustee has undertaken only those obligations and duties which are expressly set out in the Indentures. The Trustee has not independently passed upon the validity of the Bonds, the security therefore, 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 Co-Bond Counsel for the validity and tax-exempt status of the interest on the Bonds. The Indentures expressly provide 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 Indentures, the Trustee is liable only for those damages caused by its gross negligence or willful misconduct. Under the Indentures, the Trustee is not required to take notice or be deemed to have notice of any default under the Indentures, 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 failure by the Authority to file with the Trustee any document required by the Indentures 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 Indentures 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 Indentures) exists, except as expressly stated above and in the Indentures. The summary of the Trustee's rights, duties, obligations and immunities contained herein is not intended to be a complete summary and reference is made to "Summary of Indentures" – Appendix A herein for a more complete statement of the Trustee's rights, duties, obligations and immunities.

LEGAL OPINIONS

Purchase of the Bonds by the Underwriter is subject to the receipt of the approving legal opinion of Doepken Keevican & Weiss Professional Corporation and Kutak Rock, both of Pittsburgh, Pennsylvania, Co-Bond Counsel. The unqualified approving opinion of Co-Bond Counsel will be printed on the Bonds in substantially the form attached to this Official Statement as Appendix E. Certain legal matters for the Authority will be passed upon by its Special Counsel, Ford & Council, Pittsburgh, Pennsylvania. Certain legal matters will be passed upon for the Authority by its Disclosure Counsel, Babst, Calland, Clements and Zomnir, a Professional Corporation, of Pittsburgh, Pennsylvania.

RATINGS OF THE BONDS

Fitch Investors Service, Inc., Moody's Investors Service, Inc. and Standard & Poor's Ratings Group have assigned ratings of "AAA", "Aaa" and "AAA", respectively, to the 1995 Series A Bonds, with the understanding that, upon delivery of the 1995 Series A Bonds, the Financial Guaranty Policy will be issued by Financial Guaranty.

Moody's Investors Service, Inc. and Standard & Poor's Ratings Group have assigned their ratings of "Aaa" and "AAA", respectively, to the 1995 Series B Bonds with the understanding that, upon delivery of the 1995 Series B Bonds, a policy insuring the payment when due of the principal of and interest on the 1995 Series B Bonds will be issued by Financial Security Assurance Inc..

Such ratings reflect only the view of such rating agencies and are not recommendations to buy, sell or hold the Bonds. An explanation of the significance of such ratings may be obtained from the rating agencies furnishing the same.

Generally, rating agencies base their ratings on the information and materials furnished to them and on investigations, studies and assumptions by the rating agencies. There is no assurance that a particular rating will continue for any given period of time or that they will not be revised downward or withdrawn entirely if, in the judgment of the agency originally establishing the rating, circumstances so warrant. Any such downward revision or withdrawal could have an adverse effect on the market price of the Bonds.

CONTINUING DISCLOSURE

The Authority has entered into an undertaking (the "Undertaking") for the benefit of the holders of the Bonds to send:

(1) its annual audited financial statements (Appendix B) and its updated financial information and operating data of the type contained herein under the captions THE WATER AND SEWER SYSTEM - Water and Sewer Rates, Expenses of Operation and Financial Operations; and the Rate Covenant Analysis (as set forth in "Consulting Engineer's Report", Section VII - Appendix D) on or before July 15th of each succeeding year, or, in the case of the Authority's audited financial statements, if not then available, the Authority shall provide unaudited financial statements and supply their audited financial statements, when available, to (i) all Nationally Recognized Municipal Securities Information Repositories, which currently include; The Bond Buyer; Kenny Information Systems, Inc.; Bloomberg Municipal Repositories; Moody's NRMSIR; and Disclosure, Inc. (collectively, the "Repositories"), and (ii) the state information depository in Pennsylvania (the "SID"), if any;

(2) to provide notice to the Repositories or to the Municipal Securities Rulemaking Board (the "MSRB") and to the SID, if any, of the following events, pursuant to the requirements of Section (b)(5)(i) of Securities and Exchange Commission Rule 15c2-12 (17 C.F.R. Part 240, §240.15c2-12) (the "Rule"): (i) principal and interest payment delinquencies on the Bonds (beyond any applicable grace period); (ii) an Event of Default as defined in the Indentures other than a payment default

described in (i) above; (iii) unscheduled draws on the Debt Service Reserve Funds established under the Indentures reflecting financial difficulties of the Authority; (iv) unscheduled draws on the Bond Insurance reflecting financial difficulties of the Authority; (v) substitution of either Bond Insurer for the Bonds, or their failure to perform; (vi) the rendering of an adverse legal tax opinion of a nationally recognized bond counsel in connection with the Bonds, or the occurrence of an event affecting the tax-exempt status of the security for the Bonds; (vii) an amendment of or modification to rights of Bondholders effected under the Indentures or any other document or instrument relating to the Bonds; (viii) Optional or Extraordinary Optional Redemption of the Bonds under the Indentures; (ix) the Authority shall provide for the legal defeasance of all or a portion of the Bonds pursuant to the terms of the Indentures; (x) release, substitution or sale of the property securing repayment of the Bonds under the Indentures; and (xi) a rating change affecting the Bonds made by any rating agency then rating the Bonds; and

(3) to notify the Repositories or the MSRB and the SID, if any, of a failure by the Authority to provide annually the information required in (1) above.

The Authority's annual financial statements for each fiscal year shall be prepared in accordance with the standards followed in preparation of the Authority's 1994 Audited Financial Statements appearing at Appendix B attached hereto, which standard is the currently effective generally accepted accounting principles ("GAAP") for government units, which may be changed to reflect changes in GAAP from time to time and audited by an independent accounting firm, but only if audited financial statements are otherwise available.

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.

FINANCIAL ADVISOR

Grant Street Advisors served as financial advisor with respect to the initial sale of the Bonds. The financial advisor assisted in the preparation of this Official Statement, and in other matters relating to the planning, structuring and issuance of the Bonds, and provided other advice. Grant Street Advisors acted solely as a financial advisor and not as an underwriter with respect to the initial sale of the Bonds.

UNDERWRITING

The Bonds are being purchased by Prudential Securities Incorporated (the "Underwriter"). The Underwriter has agreed, subject to certain customary conditions precedent to closing, to purchase the Bonds from the Authority at an aggregate purchase price of $189,198,908.90 (which includes an underwriter's discount of $1,380,773.40, an original issue discount of $2,309,102.40 and an original issue premium of $18,784.70) plus accrued interest from the date of the Bonds to the date of settlement.

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 Indentures 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.

The Authority deems this Official Statement to be substantially final as of its date for purposes of Securities Exchange Commission Rule 15c2-12 and the Authority has agreed to comply with all applicable provisions of such rule.

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/_____
Authorized Representative

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APPENDIX A

Summary of Indentures

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SUMMARY OF INDENTURES

The 1995 Series A Bonds (the "1995 Series A 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 "Supplemental Indenture"), (collectively, the "First Lien Indenture"). The Water and Sewer System Revenue Refunding Bonds, Series A of 1993 (the "Series A of 1993 Bonds"), and The Water and Sewer System Revenue Bonds, Series B of 1993 (the "Series B of 1993 Bonds" and, together with the Series A of 1993 Bonds, the "1993 Bonds"), were previously issued under the Original Indenture. Simultaneously with the issuance of the 1995 Series A Bonds, the Authority is issuing Subordinate Bonds (the "Subordinate Bonds") pursuant to and secured by a Subordinate Trust Indenture, dated as of July 15, 1995 (the "Subordinate Indenture"). All bonds issued pursuant to the First Lien Indenture (the "Bonds") together with the Subordinate Bonds are herein referred to as the "Authority Bonds."

SUMMARY OF FIRST LIEN INDENTURE

A summary of the First Lien Indenture follows. Such summary is qualified in all respects by specific reference to the First Lien Indenture. A copy of the Original Indenture and the Supplemental 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 improvements 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 depositaries, an allowance for depreciation, any payments to pension or retirement funds and taxes.

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 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 hereinafter provided, 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 1993 Bonds. The municipal bond insurance policy issued with respect to the 1995 Series A Bonds is for the sole benefit of the 1995 Series A Bonds.

Additional Bonds.

The Authority may issue additional Bonds, on a parity with the 1995 Series A 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.

1995 Capital Project Fund.

Proceeds deposited in the 1995 Capital Project Fund shall be disbursed by the Trustee in payment of the cost of the 1995 Capital Project. Before each withdrawal and payment of the cost of the 1995 Capital Project from the 1995 Capital Project Fund by the Trustee, the Authority shall deliver to the Trustee a requisition signed by the Authority.

Revenue Fund; Depreciation Reserve Account.

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.

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 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.

A $21,853,920 surety bond issued by Financial Guaranty is held in the Debt Service Reserve Fund, which amount is equal to the maximum annual debt service requirements on the 1993 Bonds. On the date of issuance of the 1995 Bonds, moneys will be deposited in the 1995 Series A Account of the Debt Service Reserve Fund in an amount equal to the maximum annual debt service requirements on the 1995 Series A Bonds. There shall be maintained in the Debt Service Reserve Fund an amount equal to the maximum annual debt service requirements on the Bonds. 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 in 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.

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 and a 1995 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 ("FNMAs"); participation certificates of the General Services Administration; guaranteed mortgage-backed securities and guaranteed participation certificates of the Government National Mortgage Association ("GNMAs"); 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; Resolutions 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 for not less than $3 million, provided such deposits are continuously and fully insured by the Bank Insurance Fund or the Savings 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, GNMAs, FNMAs 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 "A-3" 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 insurer, 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 insurer.

Rate Covenant.

The Authority covenants that it will comply with one of the following in any fiscal year:

(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% of the debt service requirements with respect to the Authority Bonds during the then current fiscal year of the Authority.

(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 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 funds and may be used to pay debt service on Authority Bonds or are applied directly to payment of debt service on Authority 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% of the debt service requirements with respect to Authority Bonds during the then current fiscal year of the Authority.

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.

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 policy); 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 policy); 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 hereunder or thereunder; 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, the failure of the Authority to meet the rate covenant 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 insurance policy or the Municipality Authorities Act. In no event, so long as the 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 the bond insurer.

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 issued hereunder; 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 the 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.

Remedies of Trustee and Bondholders; Rights 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 hereunder 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 hereunder, subject to the provisions hereof 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 insurance policy, be deemed to be the owner of the Bonds.

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 hereunder, 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, the bond insurer shall, so long as no event of default has occurred under its insurance policy, be deemed to be the owner of the Bonds.

So long as the 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 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 then outstanding hereunder 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 the 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 and interest of his Bonds, or the obligation of the Authority which is also absolute and unconditional, to pay the principal of and interest on each of the Bonds issued hereunder to the respective holders or registered owners thereof at the time and place in said Bonds expressed.

So long as the 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 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 tine to time and at any time, enter into such indentures or agreements supplemental hereto as shall not be inconsistent with the terms and provisions hereof and which shall not adversely affect the rights of the holders of the Bonds outstanding hereunder (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 herein 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 to 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 and interest of 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 insurer.

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.

SUMMARY OF SUBORDINATE INDENTURE

The 1995 Series B Bonds (the "Subordinate Bonds") are being issued and secured under the Subordinate Trust Indenture dated as of July 1, 1995 (the "Subordinate Indenture").

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

Pledge and Security.

The Subordinate Indenture creates a lien on Receipts and Revenues after the payment of (1) the Authority's Current Expenses; (2) the debt service on bonds issued from time to time under the First Lien Indenture; (3) the funding of the Debt Service Reserve Fund, the Operating Reserve Fund and the Renewal and Replacement Fund held pursuant to and as required by the First Lien Indenture; and (4) policy costs under the First Lien Indenture, together with all cash and investments held in any fund other than the Rebate Fund by the Trustee.

Additional Bonds.

The Authority may issue additional Bonds from time to time under the Subordinate Indenture for any lawful purpose including refunding. Any such additional Bonds will not be secured by or afforded the benefits of the Bond insurance policy issued in connection with the Subordinate Bonds. 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 Subordinate Indenture.

Acquisition Fund.

Proceeds deposited in the Acquisition Fund shall be disbursed by the Trustee to pay the costs of the acquisition by the Authority of the capital assets of the Water and Sewer System from the City of Pittsburgh pursuant to a Capital Lease Agreement (the "Acquisition"). Funds may be withdrawn from the Acquisition Fund to pay the costs of Acquisition as provided in the Capital Lease Agreement.

Investment earnings on the amounts on deposit in the Acquisition Fund shall be retained in the Acquisition Fund unless the Authority directs the Trustee otherwise. Any monies remaining in the Acquisition Fund after all amounts due in respect of the Acquisition, shall have been paid, shall be transferred by the Trustee to the Debt Service Fund.

Debt Service Fund.

The Trustee of the First Lien Indenture will transfer to the Trustee, under the Subordinate Indenture, moneys sufficient to pay the debt service on the Subordinate Bonds.

Debt Service Reserve Fund.

There shall be maintained in the Debt Service Reserve Fund an amount which when added to the amounts on hand in the Debt Service Reserve Fund of the First Lien Indenture is equal to the maximum annual debt service on all Authority Bonds. 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 Subordinate Bonds at the option of the Authority and the Trustee shall apply such monies placed in the Redemption Fund to the purchase or redemption of the Subordinate 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 in the Debt Service Fund with respect to interest on the Subordinate Bonds being redeemed and shall pay the interest due on the redemption date out of such moneys.

Rebate Fund.

Separate and apart from the pledge of the Subordinate Indenture is a Rebate Fund. Deposits, transfers and payments from the Rebate Fund shall be made in accordance with a tax regulatory agreement entered into in connection with the Subordinate Bonds.

Investment of Funds.

The funds of the Subordinate Indenture may be invested in the following:

(a) (1) Direct obligations (other than an obligation subject to variation in principal repayment) of the United States of America ("United States Treasury Obligations"), (2) obligations fully and unconditionally guaranteed as to timely payment of principal and interest by the United States of America, (3) obligations fully and unconditionally guaranteed as to timely payment of principal and interest by any agency or instrumentality of the United States of America when such obligations are backed by the full faith and credit of the United States of America, or (4) evidences of ownership of proportionate interests in future interest and principal payments on obligations described above held by a bank or trust company as custodian, under which the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor and the underlying government obligations are not available to any person claiming through the custodian or to whom the custodian may be obligated.

(b) Federal Housing Administration debentures.

(c) The listed obligations of government-sponsored agencies which are not backed by the full faith and credit of the United States of America: (1) Federal Home Loan Mortgage Corporation (FHLMC) participation certificates (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts) and senior debt obligations; (2) Farm Credit Banks (formerly: Federal Land Banks, Federal Intermediate Credit Banks and Banks for Cooperatives) consolidated system-wide bonds and notes; (3) Federal Home Loan Banks (FHL Banks) consolidated debt obligations; (4) Federal National Mortgage Association (FNMA) senior debt obligations and mortgage-backed securities (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts); (5) Student Loan Marketing Association (SLMA) senior debt obligations (excluded are securities that do not have a fixed par value and/or whose terms do not promise a fixed dollar amount at maturity or call date); (6) Financing Corporation (FICO) debt obligations; and (7) Resolution Funding Corporation (REFCORP) debt obligations.

(d) Unsecured certificates of deposit, time deposits, and bankers' acceptances (having maturities of not more than 30 days) of any bank the short-term obligations of which are rated 'A-1' or better by S&P.

(e) Deposits the aggregate amount of which are fully insured by the Federal Deposit Insurance Corporation (FDIC), in banks which have capital and surplus of at least $5 million.

(f) Commercial paper (having original maturities of not more than 270 days) rated 'A-1+' by S&P and 'Prime-1' by Moody's.

(g) Money market funds rated 'AAm' or 'AAm-G' by S&P, or better.

(h) "State Obligations", which mean: (1) Direct general obligations of any state of the United States of America or any subdivision or agency thereof to which is pledged the full faith and credit of a state the unsecured general obligation debt of which is rated 'A3' by Moody's and by S&P, or better, or any obligation fully and unconditionally guaranteed

by any state, subdivision or agency whose unsecured general obligation debt is so rated; (2) Direct general short-term obligations of any state agency or subdivision or agency thereof described in (1) above and rated 'A-1+' by S&P and 'Prime-1' by Moody's; and (3) Special Revenue Bonds (as defined in the United States Bankruptcy Code) of any state, state agency or subdivision described in (1) above and rated 'AA' or better by S&P and 'Aa' or better by Moody's.

(i) Pre-refunded municipal obligations rated "AAA" by Standard & Poor's Ratings Group and "Aaa" by Moody's Investors Service meeting the following requirements: (1) the municipal obligations are (i) not subject to redemption prior to maturity or (ii) the trustee for the municipal obligations has been given irrevocable instructions concerning their call and redemption and the issuer of the municipal obligations has covenanted not to redeem such municipal obligations other than as set forth in such instructions; (2) the municipal obligations are secured by cash or United States Treasury Obligations which may be applied only to payment of the principal of, interest and premium on such municipal obligations; (3) the principal of and interest on the United States Treasury Obligations (plus any cash in the escrow) has been verified by the report of independent certified public accountants to be sufficient to pay in full all principal of, interest, and premium, if any, due and to become due on the municipal obligations; (4) the cash or United States Treasury Obligations serving as security for the municipal obligations are held by an escrow agent or trustee in trust for owners of the municipal obligations; (5) no substitution of a United States Treasury Obligation shall be permitted except with another United States Treasury Obligation and upon delivery of a new Verification; and (6) the cash or United States Treasury Obligations are not available to satisfy any other claims, including those by or against the trustee or escrow agent.

(j) Repurchase agreements: with (1) any domestic bank the long term debt of which is rated at least 'AA' by S&P and 'Aa' by Moody's; (2) any foreign bank the long term debt of which is rated at least 'AA' by S&P and 'Aa' by Moody's; (3) any broker-dealer with "retail customers" which has, or the parent company (which guarantees the broker dealer) of which has, long-term debt rated at least 'AA' by S&P and 'Aa' by Moody's, which broker-dealer falls under the jurisdiction of the Securities Investors Protection Corporation (SIPC); or (4) any other entity described above rated 'A' or better and acceptable to the Bond Insurer, provided that: (A) The market value of the collateral is maintained at levels and upon such conditions as would be acceptable to S&P and Moody's in an 'A' rated structured financing (with a market value approach); (B) Failure to maintain the requisite collateral percentage will require the Authority or the Trustee to liquidate the collateral; (C) The Trustee or a third party acting solely as agent therefor (the "Holder of the Collateral") has possession of the collateral or the collateral has been transferred to the Holder of the Collateral in accordance with applicable state and federal laws (other than by means of entries on the transferor's books); (D) The repurchase agreement shall state and an opinion of counsel shall be rendered that the Holder of the Collateral has a perfected first priority security interest in the collateral, any substituted collateral and all proceeds thereof (in the case of bearer securities, this means the Holder of the Collateral is in possession); (E) The transferor represents that the collateral is free and clear of any third-party liens or claims; (F) The repurchase agreement is a "repurchase agreement" as defined in the United States Bankruptcy Code and, if the provider is a domestic bank, a "qualified financial contract" as defined in the Financial Institutions Reform Recovery and Enforcement Act of 1989 ("FIRREA") and such bank is subject to FIRREA; (G) There is or will be a written agreement governing every repurchase transaction; (H) The Authority and the Trustee each represents that it has no knowledge of any fraud involved in the repurchase transaction; (I) The Authority and the Trustee receive the opinion of counsel (which opinion shall be addressed to the Authority and the bond Insurer) that such repurchase agreement is legal, valid, binding and enforceable upon the provider in accordance with its terms; (J) The repurchase agreement shall provide that if during its term (i) the provider's rating by either S&P or Moody's falls below 'AA-' or 'Aa3', respectively, the provider must, at the direction of the Authority or the Trustee (who shall give such direction if so directed by the Bond Insurer), within 10 days of receipt of such direction, either (a) maintain collateral at levels and of the type as shall be reasonably acceptable to the Bond Insurer; or (b) repurchase all collateral and terminate the agreement, and (ii) the provider's rating by either Moody's or S&P is withdrawn or suspended or falls below 'A' by S&P or 'A2' Moody's, as appropriate, the provider must, at the direction of the Authority or the Trustee (who shall give such direction if so directed by the Bond Insurer), within 10 days of receipt of such direction, repurchase all collateral and terminate the agreement, in either case with no penalty or premium to the Authority or Trustee. Notwithstanding the above, if a repurchase agreement has a term of 270 days of less (with no evergreen provision), collateral levels need not be as specified in (a) above, so long as such collateral levels are 103% or better and the provider is rated at least "AA" and "Aa" by S&P and Moody's, respectively.

(k) Investment agreements with a domestic or foreign bank the long-term debt of which is rated at least 'AA' by S&P and 'Aa' by Moody's; provided that, by the terms of the investment agreement: (1) interest payments are to be made to the Trustee at times and in amounts as necessary to pay debt service (or, if the investment agreement is for the construction fund, construction draws) on the Bonds; (2) the invested funds are available for withdrawal without penalty or premium, at any time upon not more than seven days' prior notice (which notice may be amended or withdrawn at any time prior to the specified withdrawal date); provided that the Subordinated Indenture specifically requires the Authority or the Trustee to give notice in accordance with the terms of the investment agreement so as to receive funds thereunder with no penalty or premium paid; (3) the investment agreement shall state that is the unconditional and general obligation of, and is not subordinated

to any other obligation of, the provider thereof; (4) a fixed guaranteed rate of interest is to be paid on invested funds and all future deposits, if any, required to be made to restore the amount of such funds to the level specified under the [Indenture]; (5) the Authority or the Trustee receives the opinion of domestic counsel (which opinion shall be addressed to the Authority and the Bond Insurer) that such investment agreement is legal, valid, binding and enforceable upon the provider in accordance with its terms and of foreign counsel (if applicable) in form and substance acceptable, and addressed to, the Bond Insurer; (6) the investment agreement shall provide that if during its term (a) the provider's rating by either S&P or Moody's falls below 'AA' of 'Aa', respectively, the provider must, at the direction of the Authority or the Trustee (who shall give such direction if so directed by the Bond Insurer), within 10 days of receipt of such direction, either (i) collateralize the investment agreement by delivering or transferring in accordance with applicable state and federal laws (other than by means of entries on the provider's books) to the Authority, the Trustee or a third party acting solely as agent therefor (the "Holder of the Collateral") collateral free and clear of any third-party liens or claims the market value of which collateral is maintained at levels and upon such conditions as would be acceptable to S & P and Moody's in an 'A' rated structured financing (with a market value approach; or (ii) repay the principal of and accrued but unpaid interest on the investment, (b) the provider's rating by either S&P or Moody's is withdrawn or suspended or falls below 'A' or 'A2', respectively, the provider must, at the direction of the Authority or the Trustee (who shall give such direction if so directed by the Bond Insurer), within 10 days of receipt of such direction, repay the principal of an accrued but unpaid interest on the investment, in either case with no penalty or premium to the Authority or Trustee; (7) The investment agreement shall state and an opinion of counsel shall be rendered that the Holder of the Collateral has a perfected first priority security interest in the collateral, any substituted collateral and all proceeds thereof (in the case of bearer securities, this means the Holder of the Collateral is in possession); and (8) the investment agreement must provide that if during its term (a) the provider shall default in its payment obligations, the provider's obligations under the investment agreement shall, at the direction of the Authority or the Trustee (who shall give such direction if so directed by the Bond Insurer), be accelerated and amounts invested and accrued but unpaid interest thereon shall be repaid to the Authority or Trustee, as appropriate, and (b) the provider shall become insolvent, not pay its debts as they become due, be declared or petition to be declared bankrupt, etc. ("Event of Insolvency"), the provider's obligations shall automatically be accelerated and amounts invested and accrued but unpaid interest thereon shall be repaid to the Authority or Trustee, as appropriate.

Rate Covenant.

The Authority covenants that it will comply with one of the following in any fiscal year:

(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% of the debt service requirements with respect to the Authority Bonds during the then current fiscal year of the Authority.

(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 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 funds and may be used to pay debt service on Authority Bonds or are applied directly to payment of debt service on Authority 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% of the debt service requirements with respect to Authority Bonds during the then current fiscal year of the Authority.

The Authority also covenants with the holders of the Subordinate 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 Subordinate Indenture will be remedied before the end of the next ensuing fiscal year.

Insurance Covenant.

The Authority will at all times cause all of 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 such properties are usually insured by persons operating properties of similar nature in the same or similar localities.

Annual Audit.

The Authority covenants to employ an independent auditor to perform such duties as are imposed on the independent auditors by the Subordinate 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 Subordinate Bond issued under the Subordinate Indenture:

(a) failure by the Authority to pay the principal of, or the premium (if any) payable upon the redemption of, any Subordinate 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 policy); or

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

(c) the entry of an order or decree appointing a receiver or receivers of the Water and Sewer System, the Receipts and Revenues or the Pledged 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 the Pledged 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, the Receipts and Revenues, or the Pledged 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 may 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 under the Subordinate Indenture or the Municipality Authorities Act.

(h) the failure of the Authority to observe any other covenant, condition or agreement of the Authority contained in the Subordinate Bonds or in the Subordinate 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 Subordinate Bonds then outstanding or the bond insurer, provided that, the failure of the Authority to meet the rate covenant in the Subordinate Indenture shall not constitute such 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) there has been declared a default with respect to bonds issued pursuant to the First Lien Indenture.

Remedies Subject to First Lien Indenture.

Upon the occurrence or continuance of an event of default, the Trustee may judicially seek specific performance with respect to the rate covenant. Notwithstanding any other provision herein, however, for so long as the First Lien Indenture is operative, the Trustee may not exercise rights or remedies hereunder with respect to the Receipts and Revenues until and unless the trustee of the First Lien Indenture shall have instituted proceedings to exercise its rights under the First Lien Indenture.

Remedies.

Acceleration of Principal. Subject to the Section entitled "Remedies Subject to First Lien Indentures," 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 Subordinate Bonds then Outstanding shall by written notice to the Authority, declare the Subordinate Bonds to be immediately due and payable, whereupon they shall, without further action, become and be immediately due and payable, anything in the Subordinate Indenture or in the Subordinate Bonds to the contrary notwithstanding, and the Trustee shall give notice thereof to the Authority and shall give notice thereof by certified mail to all holders of Outstanding Subordinate Bonds. In addition, the Trustee shall be entitled to exercise any or all of the remedies granted to a trustee or under the insurance policy or the Municipality Authorities Act. In no event, so long as the insurance policy is in effect and the bond insurer is not in payment default thereunder, shall the Trustee accelerate the payment of the Subordinate Bonds without the written consent of the bond insurer.

The above provision, however, is subject to the condition that if, after the principal of said Subordinate Bonds shall have been so declared to be due and payable, all arrears of interest, if any, upon the Subordinate Bonds and interest on overdue installments of interest at the rate of interest specified therein, and the principal of all Subordinate 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 Subordinate 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 Subordinate 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 Subordinate Bonds issued hereunder; 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 the 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.

Remedies of Trustee and Bondholders; Rights of Entry. Subject to the Sections entitled "Remedies Subject to First Lien Indentures" and "Acceleration of Principal," 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 Subordinate

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 all Receipts and Revenues, and after deducting therefrom the expenses of operation, maintenance and repair and all expenses incurred hereunder 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 hereunder, subject to the provisions hereof with respect to claims for principal and interest, to the payment of the principal of and interest on the Subordinate Bonds. Whenever all that is due upon such Subordinate Bonds and installments of interest and under any of the terms of the Subordinate 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 Article VIII of the Subordinate Indenture entitled "Remedies," the bond insurer shall, so long as no payment default has occurred under its insurance policy, be deemed to be the sole owner of the Subordinate Bonds.

Judicial Action. In case of the breach of any of the covenants or conditions of the Subordinate 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 under the Subordinate Indenture, 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 hereunder, 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 Subordinate Bonds then outstanding and upon being indemnified. For purposes of Article VIII of the Subordinate Indenture entitled "Remedies," the bond insurer shall, so long as no event of payment default has occurred under its insurance policy, be deemed to be the sole owner of the Subordinate Bonds.

Anything in the Subordinate Indenture to the contrary notwithstanding, so long as the insurance policy is in effect and the bond insurer is not in payment default thereunder, the bond insurer may direct the Trustee with respect to the taking of each remedy provided in Article VIII of the Subordinate Indenture entitled "Remedies," and the Trustee shall not take any action directed by the Bondholders without the prior written consent of the bond insurer.

Waivers and Supplemental Indentures Not Requiring Consent of Bondholders.

In addition to any supplemental subordinate indenture otherwise authorized by the Subordinate Indenture, the Authority (with the prior written consent of the bond insurer), and the Trustee may, from tine to time and at any time, enter into such indentures or agreements supplemental hereto as shall not be inconsistent with the terms and provisions hereof and which shall not adversely affect the rights of the holders of the Subordinate Bonds outstanding hereunder (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 Subordinate Indenture or any supplemental subordinate 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 Subordinate Indenture, other covenants and agreements thereafter to be observed, or to surrender any right or power herein reserved to or conferred upon the Authority;

(d) to modify any of the provisions of the Subordinate Indenture or to relieve the Authority of any of the obligations, conditions or restrictions contained in the Subordinate Indenture, provided that such modification or relief shall

not, by the express terms of the particular supplemental subordinate indenture, become effective until all Subordinate Bonds outstanding on the date of the execution and delivery of such supplemental subordinate indenture shall no longer be outstanding;

(e) to make such provision in regard to matters or questions arising under the Subordinate Indenture as may be necessary or desirable and not inconsistent with the Subordinate Indenture; or

(f) to close the Subordinate 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 to all Subordinate Bonds issued and to be issued thereunder or in respect of one or more series of Subordinate Bonds, or otherwise.

Supplemental Subordinate Indentures Requiring Consent of Bondholders.

With the consent of the holders of not less than 66-2/3% in aggregate principal amount of the Subordinate Bonds then outstanding or, in the case one or more but less than all of the series of the Subordinate 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 Subordinate Bonds of each series so affected then outstanding, and with the consent of any guarantor of principal and interest of any series of Subordinate Bonds, the Authority and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental to the Subordinate Indenture for the purpose of eliminating any of the provisions of the Subordinate Indenture or of any supplemental subordinate indenture or of modifying in any manner the rights of the holders of the Subordinate 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 Subordinate Indenture upon any part of the Pledged Revenues, or reduce the aforesaid percentage of Subordinate Bonds, the holders of which are required to consent to any such supplemental subordinate indenture, without the consent of the holders of all Subordinate Bonds then outstanding. No supplemental subordinate indenture shall be effective unless it has been consented to in writing by the bond insurer.

Discharge of Subordinate Indenture.

If the Authority, its successors or assigns, shall pay or cause to be paid unto the holders of all Subordinate Bonds outstanding the principal and interest to become due thereon and the premium thereon, if any, and to the bond insurer any and all amounts due and owing under the Subordinate Indenture, then the Subordinate 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 Subordinate Indenture which may then be in the possession of the Trustee.

Subordinate 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 Subordinate 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: (i) a verification report of an independent nationally recognized certified public accountant verifying the sufficiency of the escrow established to pay the Subordinate Bonds in full on the maturity date in form and substance satisfactory to the bond insurer; (ii) an escrow agreement in form and substance satisfactory to the bond insurer; and (iii) an opinion of bond counsel that the Subordinate Bonds are no longer outstanding under the Subordinate Indenture.

Removal of Trustee

The Trustee may be removed at any time by an instrument in writing signed by the Authority, without cause, so long as no event of default has occurred and is continuing, or by the holders of not less than a majority in aggregate principal amount of Subordinate Bonds outstanding if an event of default has occurred and is continuing, or by the bond insurer, without cause, so long as no event of default has occurred and is continuing. No such removal shall become effective until a successor (or temporary) trustee is appointed and has accepted the duties of Trustee.

Claims Upon the Bond Insurance Policy

The Trustee shall receive any amount paid under the bond insurance policy in trust on behalf of holders of the Subordinate Bonds and shall deposit any such amount in a Policy Payments Account established by the Trustee and distribute such amount only for purposes of making the payments for which a claim was made. Such amounts shall be disbursed by the Trustee to holders of the Subordinate Bonds in the same manner as principal and interest payments are to be made with respect to the Subordinate Bonds.

Subject to and conditioned upon payment of any interest or principal with respect to the Subordinte Bonds by or on behalf of the bond insurer, each Subordinate Bondholder, by its purchase of Subordinate Bonds, assigns to the bond insurer, all rights to the payment of interest or principal on the Subordinate Bonds, including, without limitation, any amounts due to the Subordinate Bondholders in respect of securities law violations arising from the offer and sale of the bonds, which are then due for payment. The bond insurer may exercise any option, vote, right, power or the like with respect to the Subordinate Bonds to the extent it has made a principal payment pursuant to the bond insurance policy. The foregoing assignment is in addition to, and not in limitation of, rights of subrogation otherwise available to the bond insurer in respect of such payments.

Each Subordinate Bondholder, by its purchase of bonds, and the Trustee hereby agrees that the bond insurer may at any time during the continuation of an insolvency proceeding direct all matters relating to such insolvency proceeding, including, without limitation, (i) all matters relating to any preference claim, (ii) the direction of any appeal of any order relating to any preference claim, and (iii) the posting of any surety, supersedeas or performance bond pending any such appeal. In addition, and without limitation of the foregoing, the bond insurer shall be subrogated to the rights of the Trustee and each Subordinate Bondholder in any insolvency proceeding to the extent it is subrogated pursuant to the bond insurance policy, including, without limitation, any rights of any party to an adversary proceeding action with respect to any court order issued in connection with any such insolvency proceeding.

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APPENDIX B

Authority Financial Statements

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PITTSBURGH WATER AND SEWER AUTHORITY

FINANCIAL STATEMENTS
AND
ADDITIONAL INFORMATION

YEAR ENDED DECEMBER 31, 1994

WITH

INDEPENDENT AUDITOR'S REPORT

MAHER DUESSEL
CERTIFIED PUBLIC ACCOUNTANTS

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PITTSBURGH WATER AND SEWER AUTHORITY

Year Ended December 31, 1994

Table of Contents

Independent Auditor's Report 1

Financial Statements:

Balance Sheet 2

Statement of Income and Changes in Accumulated Deficit 3

Statement of Cash Flows 4

Notes to Financial Statements 5

Additional Information:

Schedule of Trusteed and Nontrusteed Fund Activity 13

Schedule of Trusteed and Nontrusteed Fund Composition 14

Schedule of Budgeted and Actual Operating Expenses 15

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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 year ended December 31, 1994, as listed in the 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 audit.

We conducted our audit in accordance with generally accepted auditing standards. 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 audit provides 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, 1994, and the results of its operations and cash flows for the year then ended in conformity with generally accepted accounting principles.

As described in Note 3, the Authority has material transactions with the City. As discussed in Note 8, the Authority and the City have agreed to materially change these arrangements effective in 1995.

Our audit was 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 audits 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.

Maher Duessel

March 27, 1995
except as to Note 8, for which the date is April 11, 1995

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PITTSBURGH WATER AND SEWER AUTHORITY

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 1994

PITTSBURGH WATER AND SEWER AUTHORITY

BALANCE SHEET

(Dollars expressed in thousands)

December 31, 1994

Assets	
Current assets:	
Nontrusteed funds:	
Cash and cash equivalents	$ 2,765
Customer accounts receivable, net:	
Billed	6,310
Unbilled	7,462
Total accounts receivable	13,772
Total current assets	16,537
Prepaid lease and management obligations	5,400
Trusteed funds:	
Accrued interest receivable	400
Accrued interest payable	(4,636)
Cash and cash equivalents	25,776
Investments	18,493
Total trusteed funds	40,033
Property, plant and equipment, at cost:	
Utility plant, net of accumulated depreciation	122,536
Nonutility plant, net of accumulated depreciation	3,613
Construction in progress, including deferred interest	46,307
Total property, plant and equipment	172,456
Bond issue costs, net of accumulated amortization	2,660
Total assets	$ 237,086

Liabilities and Fund Deficit	
Liabilities:	
Current liabilities:	
Accounts payable - nontrusteed funds	$ 11
Total current liabilities	11
Accounts payable - trusteed funds	980
Deferred revenue	1,265
Bonds payable:	
Revenue bonds, Series 1993	281,260
Unamortized net bond premium	350
Unamortized refunding loss	(32,876)
Total bonds payable	248,734
Commitments and contingencies	-
Total liabilities	250,990
Fund equity (deficit):	
Contributed capital	5,277
Accumulated deficit	(19,181)
Total fund deficit	(13,904)
Total liabilities and fund deficit	$ 237,086

See accompanying notes.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENT OF INCOME
AND
CHANGES IN ACCUMULATED DEFICIT

(Dollars expressed in thousands)

For the year ended December 31, 1994

Operating Revenue:	
Residential, commercial, and industrial water sales	$ 50,056
Utility water sales	3,109
Other	154
Total operating revenue	53,319
Operating Expenses:	
Operating expenses reimbursed to the City:	
Water department direct expenses	14,936
Sewer direct and indirect expenses	3,651
City indirect cost allocation	5,098
Operating lease with the City:	
Fixed lease payment	3,051
Additional payment	4,737
Subsidy of non-City water agency customers	2,715
Depreciation	4,206
General and administrative	770
Total operating expenses	39,164
Operating Income	14,155
Other Revenue (Expense):	
Interest revenue	546
Interest expense	(12,536)
Amortization of bond issue costs	(190)
Total other revenue (expense)	(12,180)
Net Income	1,975
Accumulated Deficit:	
Beginning of year	(21,156)
End of year	($ 19,181)

See accompanying notes.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENT OF CASH FLOWS

(Dollars expressed in thousands)

For the year ended December 31, 1994

Cash Provided (Used) by Operating Activities:	
Operating income	$ 14,155
Adjustments to reconcile operating income to cash provided:	
Depreciation	4,206
Increase in customer accounts receivable	(1,544)
Change in due to/from the City of Pittsburgh	(3,525)
Decrease in accounts payable	(213)
Net adjustments	(1,076)
Cash provided by operating activities	13,079
Cash Used by Noncapital Financing Activities:	
Principal paid on revenue bonds related to noncapital funds	(1,612)
Interest payments related to noncapital funds	(2,372)
Cash used by noncapital financing activities	(3,984)
Cash Used by Capital and Related Financing Activities:	
Principal paid on revenue bonds related to capital funds	(6,883)
Interest payments related to capital funds	(10,127)
Acquisition and construction of capital assets	(14,008)
Cash used by capital financing activities	(31,018)
Cash Provided (Used) by Investing Activities:	
Proceeds from forward float	1,265
Purchase of investment securities	(29,006)
Proceeds from sale and maturities of investment securities	48,618
Interest earnings	2,606
Cash provided by investing activities	23,483
Increase in Cash and Cash Equivalents	1,560
Cash and Cash Equivalents:	
Beginning of year	26,981
End of year	$ 28,541
Cash and Cash Equivalents at End of Year:	
Nontrusteed funds	$ 2,765
Trusteed funds	25,776
	$ 28,541

See accompanying notes.

1. Organization

The Pittsburgh Water and Sewer Authority (Authority) supplies and distributes water to approximately 84,000 residential, commercial, and industrial customers located in the City of Pittsburgh (City) and collects wastewater throughout the City.

Incorporated in 1984 in accordance with Pennsylvania's Municipalities Authorities Act pursuant to a resolution enacted by City Council and approved by the Mayor, the Authority is governed by a seven member board appointed by the Mayor. The Authority was created 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 Sewer System" or "System").

On May 1, 1984, the Authority entered into a Lease and Management Agreement with the City that included an operating lease of the System by the Authority and engaged the City as the Authority's agent for operations, maintenance, and improvements, subject to the Authority's managerial oversight. This Agency relationship continued through 1994, but was terminated in 1995 when the Authority assumed direct responsibility for operating, maintaining, and improving the System. Additionally, the Authority and City expect to terminate remaining aspects of the Lease and Management Agreement in 1995 and establish both a cooperation agreement to reconstitute limited relationships and introduce a capital lease for the System.

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 issues bonds and notes payable solely from the Authority's revenues.

At the inception of the Authority, the City conveyed customer accounts receivable valued at $5,277,000, net of a reserve for uncollectible amounts, as a contribution to capital.

2. Summary of Significant Accounting Policies

Reporting entity

The Authority is a component unit of the City as defined in Governmental Accounting Standards Board (GASB) Statement No. 14. These financial statements present only the financial position, income, changes in accumulated deficit, and cash flows of the Authority and do not present the corresponding information of the City taken as a whole.

Basis of Accounting

The Authority applies the accrual basis of accounting. Revenues are recognized when earned; expenses are recognized when incurred.

Cash and cash equivalents

Cash and cash equivalents include all highly liquid investments, both trusteed and nontrusteed, with an original maturity of three months or less.

Investments

Investments in non-trusteed and trusteed funds are recorded at amortized cost.

Deferred interest

Earnings on funds restricted for the purpose of capital improvements, net of related interest expense, is deferred and allocated to the cost of capital assets. For the year ended December 31, 1994, the Authority deferred interest earnings of $1,726,000 less interest expense of $4,411,000.

Deferred interest includes the unamortized premiums for bond insurance acquired with the objective of credit enhancement coincident with issuance of debt. Premiums are amortized over the life of the related bonds using the effective interest method.

Bond issue costs, premiums and discounts, and deferred refunding loss

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 balance sheet.

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 balance sheet as an increase to bonds payable.

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 defeased in 1993 was recorded as deferred refunding loss. The unamortized portion is reflected on the balance sheet as a reduction of bonds payable.

Property, plant and equipment

Depreciation of fixed assets is provided on the straight-line method based on the estimated useful lives of the various classes of assets. Utility assets have an estimated useful lives ranging from 30 to 40 years. Maintenance and repairs are charged to expense as incurred; major renewals and betterments are capitalized and depreciated.

3. Transactions with the City of Pittsburgh

Effective May 1, 1984, the Authority and City commenced a Lease and Management Agreement (Agreement) with an initial term of fifty years. The Agreement leases the System to the Authority and engages the City as the Authority's agent to operate, maintain, and improve the System, subject to management oversight by the Authority. The Authority also provides other support to the City. Payments to the City, except for direct costs, are subordinate to the Authority's trust indenture obligations.

Lease

The Authority and City expect to terminate the existing lease in 1995 and introduce a capital lease. The Authority accounts for the existing lease as an operating lease. The existing lease entails a "fixed lease payment" and an "additional payment." For 1994, the "additional payment" was $4,737,0000. For 1995, the "additional payment" was originally budgeted at $4,874,841 and ultimately would have been subject to a ceiling of $5,000,000 annually. In 1993, the Authority made a prepayment of $4,000,000 to be amortized over the remaining fixed lease payments. At December 31, 1994, remaining fixed lease payments (in thousands), net of the prepayment amortization, were:

1995	$ 2,136
1996	2,134
1997	1,980
1998	1,838
1999	1,742
Later years	18,499
Total fixed lease payments	$ 28,329

Agency

The Agreement's Agency relationship continued through 1994, but ended in 1995. Under the Agreement, the Authority reimbursed the City for direct and indirect operating costs attributed to the System. As of December 31, 1994, "prepaid lease and management obligations" includes approximately $1.4 million paid by the Authority in excess of reimbursable costs. The City holds the Authority harmless for claims or judgments against the Authority related to the operation and maintenance of the System. However, the City can effectively recover related costs from the Authority. Authority employees generally participate the City's Municipal Retirement Plan; the Authority records benefit expenses based on amounts billed by the City.

Other

The Authority has agreed to provide up to 600 million gallons of water annually for the City's use without charge. The Authority bears the cost of subsidizing water service to those situate in the City but beyond the Authority's service area so that those water users pay charges which mirror the Authority's rates. To accomplish this subsidy, the City makes payments to the non-City water agencies and is reimbursed by the Authority.

4. Revenue and accounts receivable

Water sales revenue is recognized as earned during the period when water is supplied to customers. While utility and large commercial and industrial customers are billed monthly, most customers are billed quarterly based on actual or estimated meter readings. Accordingly, the Authority recognizes unbilled accounts receivable for water service provided prior to year-end that is billed during the first quarter of the new year.

Accounts receivable are presented net of a reserve for uncollectible amounts. A provision for uncollectible accounts, based upon historical experience, is recognized coincident with recognition of revenue. Since the Authority's inception, amounts relieved from the reserve for uncollectible accounts have generally been limited to amounts collected. At December 31, 1994, the reserve for uncollectible accounts was approximately $17.5 million; a reduction of approximately $1.2 million from the prior year-end. 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.

The Authority commenced an effort to aggressively pursue selected large commercial and industrial delinquencies in 1994. Management expanded this effort to aggressively pursue all classes of delinquent customers with an announced program that will enforce service terminations of delinquent customers (for the first time in Authority history) beginning in April 1995 coupled with the introduction of the capacity to allow customers to pay by credit card. These efforts had succeeded in collecting approximately $2.0 million of delinquent accounts during the first quarter of 1995.

The Authority has an agreement with Pennsylvania American Water Company (PAWCO) to provide four to twelve million gallons of water per day for resale to PAWCO customers at the Authority's normal bulk rates. The initial ten-year term of this agreement expires in April, 1998. For 1994, "utility water sales" to PAWCO amounted to $3,109,000.

5. Revenue Bonds

To finance its initial capital improvement program, the Authority issued Daily Adjustable Demand Water and Sewer System Revenue Bonds of $93,600,000 in 1984 ("1984 Bonds"). In 1985, the Authority issued Water and Sewer System Adjustable Rate Tender Revenue Bonds ("1985 Bonds") that accomplished an advance refunding which defeased the 1984 Bonds. In 1986, the Authority issued $134,700,000 Water and Sewer System Adjustable Rate Tender Revenue Bonds ("1986 Bonds") to finance the next phase of its capital improvement program. In July 1991, the Authority issued $248,329,024 Water and Sewer System Revenue Refunding Bonds, Series A of 1991 ("1991 Bonds") which currently refunded of all outstanding 1984 and 1985 Bonds.

In November 1993, the Authority issued $278,970,000, Series A Refunding Bonds, ("Series A Bonds") and $10,785,000 Series B Revenue Bonds, ("Series B Bonds") to

finance additional capital improvements. Series A Bonds proceeds of $276,612,700 (net of $3,402,000 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, 1994 was $287,640,000 .

The Series A and B 1993 Bonds bear interest at fixed rates ranging from 3.4% to 6.5%, payable semiannually at March 1 and September 1. The average effective interest rate on the 1993 Bonds, including amortization of original issue premium and excluding the 1991 refunding loss is 5% for 1994. Interest incurred for the years ended December 31, 1994 on bonds payable, exclusive of the amortization of deferred interest and the refunding loss was $14,165,000. Amortization of deferred interest and the 1991 Bond refunding loss totaled $2,795,000 for the year ended December 31, 1994, and is included in interest cost.

Fair value of the 1993 Bonds at December 31, 1994, based on quoted market prices, is approximately $245,966,000.

A portion of the 1993 Bonds are subject to optional and mandatory redemption in various face amounts beginning September 1, 2003. Scheduled maturities of the 1993 Bonds are as follows (in thousands):

1995	$ 4,355
1996	5,945
1997	6,865
1998	8,550
1999	8,885
Later years	246,660
	$ 281,260

In accordance with the provisions of the trust indenture for the 1993 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 balance sheet as "Trusteed Funds", at December 31, 1994 was (amounts in thousands):

Construction funds	$ 32,220
Debt service fund	3,789
Operating reserve amount	3,405
Self-insured escrow fund	619
	$ 40,033

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 in a Revenue Fund and disbursed therefrom as provided for in the trust indenture. This Revenue Fund constitutes the vast majority of Nontrusteed funds cash and cash equivalents.

6. Investments and Deposits with Financial Institutions

The Authority in 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; and highly rated bank promissory notes or investment funds or trusts. Throughout the year ended December 31, 1994, 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
$ 200,000	$ 1,478,000	$ 1,678,000	$ 1,721,000

The GASB requires disclosure of investments (including certain amounts qualifying for classification as "cash and cash equivalents" for purposes of the balance sheet and Statement of Cash Flows) delineated in prescribed categories intended to give some indication of the level of risk assumed by the Authority. At December 31, 1994, all Authority investments (summarized below in thousands) 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.)

	Category 3	Market Value
Categorized investments:		
Repurchase agreements	$ 26,820	$ 26,820
U.S. government securities	17,163	16,774
Local government securities	1,330	1,272
Total investments	$ 45,313	$ 44,866

The underlying securities of the repurchase agreements and U.S. government securities are held in the bank's trust department in the bank's name in the Federal Reserve book entry system. The local government securities are also held in the bank's name. Pursuant to the trust indenture, the bank acts as trustee for the bondholders, and in the bank's accounting

records the above investments are held in the name of the trust, created by the trust indenture, for the bondholders.

The Authority entered into a Forward Float Agreement under which the Authority received $1,265,000 from a third party (the Provider) in December 1994. The Forward Float Agreement requires the Authority to make monthly deposits to the Authority's debt service fund to be used to purchase specified investments from the Provider. Such investments are scheduled to mature in amounts and at times to allow the Authority to meet its debt service requirements. In addition, the Provider is required to make semiannual supplemental payments to the Authority. The initial payment received in December 1994 was recorded as deferred revenue and will be recognized as earnings ratably over the life of the Agreement.

7. Commitments and Contingencies

As of December 31, 1994, $8 million was committed for noncancelable construction contracts. In addition, the Authority is currently evaluating its capital improvement requirements for the next several years which are preliminarily estimated to entail expenditures of approximately $80 million which are expected to be financed through issuance of revenue bonds. Furthermore, the Authority is in the midst of negotiations with the Pennsylvania Department of Environmental Resources concerning the prospect of covering open finished reservoirs. The ultimate nature and extent of improvements that may be necessary for the open finished reservoirs is not determinable at this time, but is expected to entail amounts material to the Authority and require additional borrowing.

The Authority leases facilities which entailed rental expense of approximately $190,000 for 1994. Future minimum rental commitments (in thousands) are:

1995	$ 287
1996	196
1997	118
Total	$ 601

In 1987, the Authority elected to become self-insured for general liability coverage and established a general liability self-insured escrow fund. Because of this restriction, and consideration of materiality, this fund is grouped with "Trusteed Funds" on the balance sheet. Through December 31, 1994, the Authority has not paid any claims from this fund. As discussed in Note 3, the City Lease and Management Agreement indemnifies the Authority against claims arising from the operation and maintenance of the System. However, the cost of indemnification can effectively be recovered from the Authority.

Various 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 and legal counsel, the effect on the financial statements of potential losses associated with any claim and/or lawsuit should not be material.

8. Subsequent Events

Effective January 1, 1995, the City's role as agent for the Authority (pursuant to the lease and management agreement described in Note 3) was terminated, whereupon the Authority assumed direct responsibility for operating the System. Among the changes entailed with elimination of the City's agency role was that individuals who had been employees of the City's Water Department on December 31, 1994 became employees of the Authority on January 1, 1995. For the time being, the Authority continues to acquire selected services from the City. This new arrangement is being formalized in a Cooperation agreement.

On April 11, 1995, City Council agreed to the Authority's proposal to establish a capital lease for the Water System and terminate the existing Lease and Management Agreement. The terms of the capital lease are expected to include payments to the City of approximately $50 million in 1995, $25 million in 1996, and $10 million in 1997. While no other lease payments will be due, the Authority will have the option to purchase the System for one dollar at the conclusion of the thirty year lease term. The Authority expects to issue revenue bonds in 1995 to provide proceeds which, together with amounts previously paid to the City, will be used by the Authority to meet its obligations under the capital lease.

PITTSBURGH WATER AND SEWER AUTHORITY

ADDITIONAL INFORMATION

YEAR ENDED DECEMBER 31, 1994

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF TRUSTEED AND NONTRUSTEED FUND ACTIVITY

(Dollars expressed in thousands)

Year ended December 31, 1994

	Trusteed Funds					Nontrusteed Funds				
	Construction Fund	Prior Construction Fund	Debt Service Fund	Operating Reserve Account	Self-Insured Escrow Fund	Operations & Maintenance Fund	Revenue Fund	Supplemental Cost Fund	Clearing Fund	Total
Increases:										
Water sales receipts	$ -	$ -	$ -	$ -	$ -	$ -	$ 52,139	$ -	$ -	$ 52,139
Interest	416	1,236	278	135	24	1	178	-	3	2,271
Other	-	27	1,265	-	-	23	8	-	-	1,323
Total increases	416	1,263	1,543	135	24	24	52,325	-	3	55,733
Decreases:										
Operations	-	-	-	-	-	28,637	-	10,124	-	38,761
Capital projects	1,246	12,761	-	-	-	-	-	-	-	14,007
Interest	-	-	14,165	-	-	-	-	-	-	14,165
Bond principal		-	8,495	-	-	-	-	-	-	8,495
Other	-	31	-	-	-	9	217	-	130	387
Total decreases	1,246	12,792	22,660	-	-	28,646	217	10,124	130	75,815
Interfund transfers:										
Operations and maintenance	-	-	-	-	-	28,538	(28,538)	-	-	-
Revenue	-	-		-	-	-	(10,124)	10,124	-	-
Debt service	-	-	20,795	-	-	-	(20,795)	-	-	-
Total interfund transfers	-	-	20,795	-	-	28,538	(59,457)	10,124	-	-
Net activity	(830)	(11,529)	(322)	135	24	(84)	(7,349)	-	(127)	(20,082)
Balance at beginning of year	10,002	34,577	4,111	3,270	595	105	10,074	-	146	62,880
Balance at end of year	$ 9,172	$ 23,048	$ 3,789	$ 3,405	$ 619	$ 21	$ 2,725	$ -	$ 19	$ 42,798

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF TRUSTEED AND NONTRUSTEED FUND COMPOSITION

(Dollars expressed in thousands)

December 31, 1994

	Carrying Value	Market Value
Trusteed Funds		
Construction Fund		
Accrued interest receivable	$ 47	$ 47
Goldman Sachs Treasury Backed Repurchase Agreement	8,740	8,740
Creswel Heights Joint Water Authority Refunding Revenue Series 94B 3.9% interest, due March 1, 1995	185	184
Creswell Heights Joint Water Authority Refunding Revenue Series 94B 4.55% interest, due March 1, 1996	200	192
	$ 9,172	$ 9,163
Prior Construction Fund		
Accrued interest receivable	$ 300	$ 300
Goldman Sachs Treasury Backed Repurchase Agreement	5,220	5,220
U.S. Treasury Notes, 4.25% interest, due January 31, 1995	5,002	4,996
U.S. Treasury Notes, 4.125% interest, due June 30, 1995	1,500	1,482
U.S. Treasury Notes, 5.125% interest, due November 15, 1995	1,900	1,853
U.S. Treasury Notes, 6.750% interest, due February 28, 1997	5,185	4,902
Federal Home Loan Bank Cons. Bond, 3.79% interest, due May 26, 1995	2,996	2,961
Homer Center School District Series 94B Bonds, 4.50% interest, due September 1, 1995	155	152
Harrisburg Parking Authority Revenue Refunding Series 1944, 4.8% interest, due May 15, 1996	205	196
Harrisburg Parking Authority Revenue Refunding Series 1994, 5.0% interest, due November 15, 1996	100	95
Shaler Township PA Series A Refunding Bonds, 4.95% interest, due February 15, 1997	240	225
Shaler Township PA Series A Refunding Bonds, 5.1% interest, due August 15, 1997	245	228
	$ 23,048	$ 22,610
Debt Service Fund		
Accrued interest receivable	$ 35	$ 35
Accrued interest payable	(4,636)	(4,636)
Goldman Sachs Treasury Backed Repurchase Agreement	8,390	8,390
	$ 3,789	$ 3,789
Operating Reserve Account		
Accrued interest receivable	$ 16	$ 16
Goldman Sachs Treasury Backed Repurchase Agreement	3,389	3,389
	$ 3,405	$ 3,405
Self-Insured Escrow Fund		
Cash	$ 37	$ 37
Accrued interest receivable	2	2
U.S. Treasury Notes, 6.75% interest, maturing May 31, 1995	580	580
	$ 619	$ 619
Total Trusteed Funds	*$ 40,033*	*$ 39,586*
Nontrusteed Funds		
Operations and Maintenance Fund		
Cash	$ 21	$ 21
Clearing Fund		
Goldman Sachs Treasury Backed Repurchase Agreement	$ 19	$ 19
Revenue Fund		
Cash	$ 1,663	$ 1,663
Federated Investors	1,062	1,062
	$ 2,725	$ 2,725
Total Nontrusteed Funds	*$ 2,765*	*$ 2,765*
Total Trusteed and Nontrusteed Funds	*$ 42,798*	*$ 42,351*

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF BUDGETED AND ACTUAL OPERATING EXPENSES

(Dollars expressed in thousands)

For the year ended December 31, 1994

	Budgeted	Actual
Lease and Management Agreement Expenses:		
Operating Expenses Reimbursed to the City:		
Water Department Direct Expenses:		
Wages and salaries:		
Distribution division	$ 3,544	$ 3,545
Purification and pumping	1,547	1,482
Administrative	1,252	1,223
Engineering	153	118
Premium pay	499	468
	6,995	6,836
Utilities	3,981	3,566
Miscellaneous services	1,383	1,200
Chemicals	1,214	1,108
Materials	934	549
Workmen's compensation	723	712
Repairs	679	659
Supplies	212	144
Equipment	158	55
Refunds	97	98
Education and training	19	9
Total Water Department Direct Expenses	16,395	14,936
Sewer Department Direct and Indirect Expenses	3,668	3,651
City Indirect Cost Allocation	6,152	5,098
Total Operating Expenses Reimbursed to the City	26,215	23,685
Operating Lease with the City:		
Fixed lease payment	3,051	3,051
Additional payment	4,737	4,737
Total Operating Lease Expense	7,788	7,788
Subsidy of Non-City Water Agency Customers	3,107	2,715
Total Lease and Management Agreement Expenses	37,110	34,188
General and Administrative	777	770
Depreciation	3,600	4,206
Total Operating Expenses	$ 41,487	$ 39,164

APPENDIX C

Description of Service Area

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INTRODUCTION

The City of Pittsburgh is located in southwestern Pennsylvania at the point where the Allegheny and Monongahela Rivers merge to form the Ohio River. The City, which is the largest of 130 municipalities in Allegheny County and which serves as the County seat, covers an area of 55.5 square miles and has a 1990 Census population of 369,879.

The City is the hub of the Pittsburgh Standard Metropolitan Statistical Area (the "SMSA") which is composed of Allegheny, Beaver, Fayette, Washington and Westmoreland Counties. Mining and manufacturing were the region's original economic base. The City's location, however, has encouraged the region to diversify into products and services that serve the nation's major market areas. Transportation, distribution, finance, health care, education and research have become essential to the City as its traditional mining and manufacturing economies. The award to Carnegie-Mellon University of the Defense Department's Software Engineering Institute firmly establishes Pittsburgh among the leading areas in the nation for advanced technology research and development.

Pittsburgh has developed as the regional center of southwestern Pennsylvania, eastern Ohio and northern West Virginia. Services provided in the City for the region include health care, financial services and produce and goods distribution. It is the major government and communication center for the tri-state area.

Pittsburgh's Golden Triangle is one of the nation's most compact and efficient downtowns, with over 150,000 daily workers and visitors and almost 23 million square feet of total office space contained within the land area of a modest college campus. Home to internationally renowned cultural institutions, Fortune 500 firms, and several of the largest financial institutions in the world, the Golden Triangle remains the single most competitive and productive business location in the region, and the single largest job generator in Western Pennsylvania.

The economic vitality of the City and its region are further enhanced by a comprehensive transportation network. Excellent ground transportation is available through a well developed road system that includes Interstate Routes 70, 76 (Pennsylvania Turnpike), 79, 80, 276 and 279. The Pennsylvania Department of Transportation has begun work on completing the Interstate highway system through the City which will aid in the flow of traffic to and around Pittsburgh. The City is served by Pittsburgh International Airport, which is utilized by seventeen air carriers and commuter carriers, and the Allegheny County Airport, which primarily services privately owned aircraft.

ECONOMIC DEVELOPMENT

Pittsburgh's transformation in response to dramatic economic change has been the product of unparalleled partnerships. Steady business and employment growth in health care, technology, education and business services now complement a more efficient manufacturing base to compete for a global customer base, all fostered by a decade of public/private leadership initiatives. Over the past twenty years, the Pittsburgh region's economic base has adjusted to new realities, and relative to cities and regions across the globe, is well positioned to support again the creation of jobs, income and investment for our communities.

Major Initiatives

A number of initiatives formerly in the planning stage will come to fruition in 1995. They include downtown development, riverfront development, land reclamation and development, commercial and housing initiatives, and increased capital formation. Following is a summary of the major initiatives:

Pittsburgh Development Fund

The Pittsburgh Development Fund (PDF) is designed to provide low cost, deferred, and subordinate debt and equity financing to fill real estate appraisal "gaps" and shortfalls resulting from conventional debt coverage ratios. Funds are available upfront and can be used for property acquisition or remediation. Eligible projects include residential, commercial, and industrial developments within the City of Pittsburgh. PDF loans are for a maximum of 30% of total project costs for projects greater than $1.5 million; the maximum loan amount is $5 million. The rate and terms are variable.

Total Bond Issue: $60 million

Pittsburgh Downtown Partnership

The Pittsburgh Downtown Partnership, spearheaded by the Mayor's Office in mid-1994, is a coalition of business, civic, and corporate leaders. The Pittsburgh Downtown Partnership will assist the City in returning downtown to the premier place to live, shop, work, and visit. The Pittsburgh Downtown Partnership has begun its mission by focusing on maintenance, security, and marketing issues.

Annual Budget: $500,000

The Tower at Theater Square

The Tower at Theater Square will include an office building, a new home for the 800-seat Pittsburgh Public Theater, a 400-space parking structure, and a public plaza and park. Construction of this new project is anticipated by the Fall of 1995.

Total Cost: $70 million

Heinz Hall Renovation

The Pittsburgh Symphony Society proposes to enhance Heinz Hall from a multi-purpose hall for music, theater, and dance to a premier concert hall. Renovations include improvements to the heating, ventilation, and air conditioning systems, upgrading the acoustical systems and replacing and repairing worn fixtures. Construction will be completed by the Fall of 1995.

Total Cost: $5 million

Station Square Expansion

The Station Square Expansion, an important component of the City's riverfront development strategy, will include a new hotel, office buildings, additional shops, restaurants, entertainment facilities, and a river front park. In addition, the Lawrence Paint building will be renovated and converted into residential units.

Total Cost: $1[illegible] million

The Senator John Heinz Pittsburgh Regional History Museum

The Senator John Heinz Pittsburgh Regional History Museum will open in April 1996. The museum represents a cultural anchor for the development of the Strip District. It is expected to attract 300,000 visitors in the first year.

Total $36 million

Washington's Landing

Washington's Landing offers investors new opportunities for locating in the City and increases the housing options for residents of the City. Eight acres remain available for development and the first phase of 100 units of upscale residential housing will be completed in the Fall of 1995. Also, plans are underway for the addition of another office and distribution facility company.

Total Cost: $65 million

Pittsburgh Technology Center

The Pittsburgh Technology Center harnesses the expertise of leading researchers and the private market to expedite the commercialization of technology. In total, PTC's $85 million public/private investment will yield an estimated 2,500 jobs. The University of Pittsburgh has located its biotechnical and bioengineering research center in a 90,000 square foot building. Carnegie Mellon University Research Institute, the research contracting arm of Carnegie Mellon University, occupies 85,000 square feet. Union Switch & Signal's research and engineering facility occupies 175,000 square feet. Presently, plans are to construct an additional 70,000 square feet of office space for high tech firms. Construction will begin in the Fall of 1995.

Total Cost: $85 million

The New Granada Theater

The vacant New Granada Theater, symbolic of the Hill District's history, will be restored into a cultural center, performing arts facility, and college and training classrooms. Adjacent to the New Granada Theater will be a new office complex. Strategy 21 funding amounts to $4 million.

Total Cost: $8.3 million

Hill Phoenix Shopping Center

The Hill Phoenix Shopping Center reinforces the Crawford Square Housing development. Construction of the shopping center is anticipated by the end of 1995. Commercial plans call for the establishment of a bank, a full service grocery store, a drug store, and other retail outlets.

Total Cost: $2.5 million

Crawford Square

Crawford Square, the City's largest residential undertaking in the past 25 years, will include 500 for-sale and rental units. Upon completion in 1996, the development will have created a mixed-income community in the Hill District, as well as provide housing near the downtown.

Total Cost: $50 million

Western Restoration Center

Western Restoration Center, located in the Hill District, is a three phase housing complex for senior citizens which will hold over 100 units upon completion in 1997.

Total Cost: $13.3 million

Federal North Redevelopment

The construction of a research/laboratory building for Allegheny General Hospital forms the cornerstone of the Federal North Redevelopment strategy. Additionally, several other properties in the area will be acquired by the Urban Redevelopment Authority and renovated for its re-use. The project is expected to commence in 1995.

Total Cost: $24 million

Three Rivers Stadium Enhancements

The Stadium Economic Enhancements, an undertaking by the Pittsburgh Pirates, the Pittsburgh Steelers, the Stadium Authority, and the City of Pittsburgh, contribute to the City of Pittsburgh's revitalization efforts on the North Side. Three Rivers Stadium will undergo internal and external improvements to create retail and commercial space, a pedestrian access bridge, and generally enhance the entertainment and recreational facilities of the North Shore. Strategy 21 amounts to $13.5 million.

Total Cost: $27 million

North Shore Place Housing

In mid 1995, Lincoln Properties intends to develop 230 units of upscale, riverfront, rental housing.

Total Cost: $24 million

ALCOA

ALCOA plans to construct its new headquarters on the North Shore of the Central Business District. Construction will start in early 1996.

South Side Riverfront Development

The South Side is an integral part of Pittsburgh's Riverfront Redevelopment strategy. The 8.3 acres of prime riverfront land will include 275 rental and for-sale units of mixed income housing. Additionally, a modest amount of commercial space is planned. Phase 1 is approximately 60% complete. Phase 2 of this development will begin in the Fall of 1995.

Total Cost: $40 million

LTV Site Redevelopment

The Mon Valley/LTV Site on Pittsburgh's South Side comprises 130 acres of in-city, cleared, riverfront land. Upon completion the site will encompass a high quality, mixed-use development.

Total Cost: To be determined

Carnegie Institute Dinosaur Hall

The Carnegie Institute Dinosaur Hall in Oakland will undergo renovations.

Total Cost: $5 million

University of Pittsburgh

The University of Pittsburgh is in the process of constructing a Bioresearch Facility.

Total Cost: $23 million

Magee Women's Hospital

Magee Women's Hospital is currently expanding its outpatient services research function.

Total Cost: $50 million

Iroquois Building

The project entails renovating the Iroquois Building and constructing an addition to the University of Pittsburgh Medical Center (UPMC). Renovations to the Iroquois building have already been completed.

Total Cost: $50 million

University of Pittsburgh

The University of Pittsburgh plans a Convocation Center and Basketball Arena, a Multipurpose Academic Complex, renovation of Bellefield Hall for the performing arts, a Western Psychiatric Institute Child and Youth Center, an addition to Hillman Library, the renovation of the Masonic Building, and an Undergraduate Business School.

Total Cost: $93 + million

Major Infrastructure Developments

Fort Duquesne Boulevard

The City is planning to improve Fort Duquesne Boulevard with granite curbs and sidewalk replacement, new street lighting. Additionally, the project includes relocating Fort Duquesne Boulevard to construct upper and lower riverfront parks.

Total Cost: $10 million (cost is for roadway and sidewalk work only)

Fort Pitt Boulevard

The Fort Pitt Boulevard will be transformed into a two level riverfront park as Interstates 376 and 279 are lowered and Fort Pitt Boulevard (eastbound) will be moved westward.

Total Cost: $18 million (cost is for roadway and sidewalk work only)

Fifth and Forbes Avenues Reconstruction

This two-phased project will replace the current pattern of asphalt and concrete sidewalks with granite sidewalks and rustic terrazzo curbs. The first phase is scheduled for the Spring of 1995.

Total Cost: $11 million

Liberty Avenue

The Liberty Avenue project is the third phase of a major reconstruction effort for this section of the Cultural District. The project calls for total reconstruction of the street. The City expects the completion of Liberty Avenue in two years.

Total Cost: $6 million

Wood Street

Wood Street reconstruction, is a two-phased project extending from Fourth Avenue to Liberty. It will focus on vault and sidewalk reconstruction and replacement of the sidewalks with granite sidewalks and rustic terrazzo curbs. Construction is expected to begin in early 1996.

Total Cost: $10 million

Wabash Bridge/Tunnel

Port Authority Transit of Allegheny County has planned the construction of an 8 mile exclusive Busway from Carnegie to Station Square on the south shore of the Monongahela River to the Wabash Bridge and terminating on Market Street. Eight park-n-ride lots will be located along the Airport Busway. Port Authority expects to complete the entire project in early 1998.

Total Cost: $50 million

First Avenue Garage

The City of Pittsburgh plans the construction of an intermodal garage on First Avenue in Downtown Pittsburgh which will contain nearly 2,000 parking spaces, a subway stop, a bus stop, and shuttle service to downtown offices.

Total Cost: $20 million

Building Activity

Building activity was strong in 1994. According to the City's Bureau of Building Inspection, total construction value within the City was nearly $202 million. Approximately seven percent of the construction value represented new housing construction. New commercial construction represented 32 percent of the total value. The remaining percentage represented construction value of extensions and alterations of existing structures.

The Table C-1 below sets forth the number and dollar value of residential and commercial building permits issued in the City in the years 1984 to 1994:

TABLE C-1
CITY OF PITTSBURGH
NUMBER AND VALUE OF BUILDING PERMITS, 1984-1994

Year	Number of Permits Issued	Dollar Value
1984	3,858	$140,202,824
1985	3,910	320,396,045
1986	3,599	254,222,123
1987	3,253	154,214,516
1988	3,281	213,563,663
1989	3,233	338,506,723
1990	3,099	140,748,508
1991	3,500	146,969,312
1992	3,368	213,314,419
1993	3,363	212,451,629
1994	3,148	201,982,565

Source: City of Pittsburgh, Bureau of Building Inspection

ECONOMY

Employment

For more than 150 years, the City has been a center for business and industry. While the steel industry continues to be a major factor in the local economy, its relative importance as a source of employment in absolute and relative terms has been diminishing. As a result, the City's economy is becoming more diversified with increasing reliance on the health, education and financial industries.

TABLE C-2
CITY OF PITTSBURGH
15 LARGEST PUBLIC COMPANIES
WITH HEADQUARTERS IN PITTSBURGH
(RANKED BY 1994 REVENUE)

	1994 Revenue
USX Corporation	$18 billion
ALCOA	$9 billion
Westinghouse Electric Corporation	$8.8 billion
H.J. Heinz Co.	$7.1 billion
PPG Industries Inc.	$5.7 billion
Consolidated Natural Gas Co.	$3.18 billion
Armco Inc.	$1.66 billion
DQE Inc.	$1.2 billion
Weirton Steel Corp.	$1.2 billion
Allegheny Ludlum Corp.	$1.1 billion
Equitable Resources Inc.	$1.1 billion
Wheeling-Pittsburgh Corp.	$1.05 billion
Quaker State Corp.	$759.2 million
J&L Specialty Steel Inc.	$648 million
Kennametal Inc.	$598.5 million

Source: Pittsburgh Business Times

As set forth in Table C-3, total employment in the City has fluctuated during the past ten years from 282,000 in 1984 to 314,525 in 1994.

TABLE C-3
CITY OF PITTSBURGH
TOTAL NUMBER OF JOBS IN THE CITY
1984-1994

1984	282,800
1985	288,900
1986	282,000
1987	288,500
1988	300,700
1989	307,200
1990	319,600
1991	327,600
1992	318,404
1993	314,758
1994	314,525

Source: City of Pittsburgh Tax Files.

City and regional labor force and employment have stabilized since 1986 after sharp declines in the early 1980's due to the steel recession.

TABLE C-4
RESIDENT CIVILIAN LABOR FORCE DATA
CITY, PMSA/MSA, COMMONWEALTH, U.S.
1990-1994

	1990	1991	1992	1993	1994
Labor Force					
City of Pittsburgh	174,300	175,600	176,800	167,900	166,100
Pittsburgh PMSA/MSA[1]	993,200	1,004,800	1,032,700	1,151,900	1,137,000
Pennsylvania	5,901,000	5,933,000	6,004,000	5,885,000	5,829,000
U.S.	124,787,000	125,303,000	127,000,000	128,040,000	131,056,000
Employment					
City of Pittsburgh	166,400	166,200	165,100	156,600	155,600
Pittsburgh PMSA/MSA[1]	945,300	944,500	962,600	1,072,800	1,066,000
Pennsylvania	5,583,000	5,524,000	5,554,000	5,472,000	5,468,000
U.S.	117,914,000	116,877,000	117,600,000	119,306,000	123,060,000
Unemployed					
City of Pittsburgh	7,900	9,400	11,600	11,300	10,500
Pittsburgh PMSA/MSA[1]	47,900	60,300	70,100	79,100	71,000
Pennsylvania	318,000	409,000	450,000	413,000	361,000
U.S.	6,874,000	8,426,000	9,400,000	8,734,000	7,996,000
Unemployment Rate (%)					
City of Pittsburgh	4.5%	5.4%	6.6%	6.7%	6.3%
Pittsburgh PMSA/MSA[1]	4.8%	6.0%	6.8%	6.9%	6.2%
Pennsylvania	5.4%	6.9%	7.5%	7.0%	6.2%
U.S.	5.5%	6.7%	7.4%	6.8%	6.1%

(1) The figures for years 1990-1992 reflect the Pittsburgh PMSA, which includes the counties of Allegheny, Fayette, Washington and Westmoreland. The figures for the years 1993 and 1994 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.

Commercial Banks

The City is one of the five major banking centers in the nation. Major banks which are headquartered in the City include Mellon Bank N.A. and PNC Bank. 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 C-5
CITY OF PITTSBURGH
COMMERCIAL BANKS
RANKED BY TOTAL ASSETS

	Total Assets as of Dec. 31, 1994
PNC Bank N.A.	$40,614,133,000
Mellon Bank N.A.	29,294,120,000
Integra Bank/Pittsburgh	8,007,195,000
Three Rivers Bank Trust Co.	340,123,000
Peoples Bank of Unity	293,491,000
Northside Bank	228,208,000
Allegheny Valley Bank	203,817,000

Source: Pittsburgh Business Times

Foreign Banks

In recent years, a number of major foreign banks have established offices in the City. This activity reflects the international economic importance of the area, as well as the growth of foreign firms who have located in the City and its environs or who have significant business commitments in the area.

Education

Colleges and Universities

The major colleges and universities located in the Pittsburgh area are shown in Table C-6.

TABLE C-6
PITTSBURGH AREA
COLLEGES AND UNIVERSITIES
(RANKED 1993 BY UNDERGRADUATE FULL-TIME ENROLLMENT)

	Undergraduate Enrollment	
	full-time	part-time
Community College of Allegheny County (all four campuses)	16,400	16,883
University of Pittsburgh	13,318	4,289
Slippery Rock University	6,259	1,418
Duquesne University	5,730	2,880
California University of Pennsylvania	4,631	706
Carnegie Mellon University	4,146	156
Robert Morris College	2,621	2,724
Westmoreland County Community College	2,580	4,331
Butler County Community College	1,478	1,643
Community College of Beaver County	1,430	1,428
Geneva College	1,306	258
Point Park College	1,173	1,402
Washington and Jefferson College	1,098	12
University of Pittsburgh at Greensburg	1,065	380
Saint Vincent College	1,035	182
Carlow College	809	1054
Seton Hill College	752	210
Penn State New Kensington Campus	661	457
Penn State McKeesport Campus	659	272
La Roche College	650	821
Chatham College	630*	—
Penn State Beaver Campus	553	123

*Represents total student body. Breakdown of full-time and part-time students not available.
Source: Pittsburgh Business Times

Vocational-Technical Schools

In addition, 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

Pittsburgh International Airport ("PIA") serves the region. The 12,080 acre airport, located in Allegheny County 16 miles from the downtown area, is the fourth largest in the country.

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. It has 75 jet gates and 25 commuter gates. Built with the latest technologies and designed for incremental expansion to meet forecasted growth, the entire complex is able to expand with relative ease.

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.

PIA's service area includes 18 counties in western Pennsylvania, six counties in southeastern Ohio, 12 counties in northern West Virginia, and 2 counties in western Maryland. Passenger traffic at PIA shows steady and sustained growth since 1981. The trends in passenger volume at Pittsburgh International Airport from 1979 through 1993 are set forth in Table C-7 as follows.

TABLE C-7
CITY OF PITTSBURGH
PASSENGER VOLUME TREND
PITTSBURGH INTERNATIONAL AIRPORT

Year	Passenger Volume	Percentage Change Over Prior Year
1979	11,139,164	—
1980	11,452,512	2.8%
1981*	10,112,266	-11.7
1982*	9,986,374	-1.2%
1983	11,885,118	19.0%
1984	13,414,626	12.9%
1985	15,058,178	12.3%
1986	15,989,507	6.2%
1987	17,457,801	9.2%
1988	17,987,040	3.0%
1989	17,145,272	-4.7%
1990	17,145,831	0.0%
1991	16,735,015	-2.4%
1992	18,748,884	12.0%
1993	18,446,663	-1.6%
1994	19,490,709	5.7%

* Air Traffic Controllers Strike

Source: Allegheny County Department of Aviation.

The following airlines serve Pittsburgh International Airport (ranked by number of 1993 passengers):

1. USAir Group Inc.
2. Chautauqua Airlines/USAir Express(1)
3. Delta Airlines
4. Jetstream International/USAir Express(2)
5. American Airlines
6. Crown Airways Inc./USAir Express(1)
7. United Airlines
8. Trans World Airlines Inc.
9. Northwest Airlines
10. Continental Airlines
11. Allegheny Commuter/USAir Express(2)
12. American Eagle/American Airlines(3)
13. British Airways
14. Continental Express/Continental Airlines
15. Trans World Express(4)
16. United Express/United Airlines(5)
17. Comair(6)

Source: Pittsburgh Business Times.

(1) Chautauqua and Crown Airways are both privately held companies but operate under a code-sharing and marketing agreement with USAir Group Inc.

(2) Jetstream International and Allegheny Commuter are wholly owned subsidiaries of USAir Group Inc.

(3) American Eagle is a subsidiary of American Airlines, Inc.

(4) Trans World Express is a subsidiary of United Airlines.

(5) United Express is a subsidiary of United Airlines.

(6) Comair has a code-sharing agreement with Delta Airlines.

Allegheny County Airport is a general service airport which is the home base for many corporate and private aircraft.

Water Transportation

The Port of Pittsburgh on the Allegheny, Monongahela and Ohio Rivers, is the largest inland port 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.

There are 130 publicly and privately owned terminals with barge landings in the Port of Pittsburgh operated primarily for diversified commercial purposes. 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.

Ten 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 river boats 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
Conrail
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) is the regional transit agency serving Pittsburgh and Allegheny County. PAT is the ninth largest transit operation in the United States, serving approximately 300,000 passengers daily. A downtown subway system was completed and opened for passenger services in 1985. The East Busway, a 6.8-mile exclusive bus right-of-way connecting downtown with the Eastern suburbs, was completed in 1983 at a cost of $110,000,000. The Busway has a capacity of 90,000 riders per day.

Passenger Bus Service

Greyhound Bus Lines provides regularly scheduled interstate bus service to the City. The Port Authority of Allegheny County provides local bus 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 569,000 customers in Allegheny and Beaver Counties and has a generating capacity in excess of 2,836,000 kilowatts. 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, People's Natural Gas Company, and Columbia Gas of Pennsylvania. Together they serve 128,807 customers in the City of Pittsburgh (118,723 residential; 9,963 commercial; and 121 industrial). 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. Its service area includes the City, 77 neighboring municipalities in the County and parts of communities in Washington and Westmoreland Counties. Alcosan serves an area of 221 square miles with 297,000 customers.

DEMOGRAPHIC DATA

Population

Table C-8 shows the population trends for the City, the County and the Pittsburgh Metropolitan Statistical Area (PMSA) from 1970 to 1990.

TABLE C-8
POPULATION
CITY, COUNTY, PMSA
1970-1990

	City of Pittsburgh		Allegheny County[1]		Pittsburgh PMSA[2]	
	Population	Percentage Change	Population	Percentage Change	Population	Percentage Change
1970	520,089		1,085,044		796,229	
1980	423,938	(18.5%)	1,026,147	(5.4%)	813,809	2.2%
1990	369,879	(12.8%)	966,570	(5.8%)	720,256	(11.5%)

(1) Population of the County, excluding residents of the City.
(2) Population of the PMSA, excluding residents of the County.
Source: U.S. Census Bureau.

Housing

Housing in Pittsburgh is very affordable when compared to the nation. 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 as follows:

TABLE C-9
CITY, COUNTY, PMSA, AND COMMONWEALTH
CHARACTERISTICS OF HOUSING UNITS COMPARISON

	1960	1970	1980	1990
Total Housing Units:				
City of Pittsburgh	188,366	189,840	179,191	170,159
County of Allegheny	503,006	533,520	570,970	580,738
Pittsburgh PMSA	720,787	789,771	874,050	879,811
Pennsylvania	3,581,877	3,924,757	4,597,412	4,938,140
Percent Owner-Occupied:				
City of Pittsburgh	48.8%	50.3%	51.2%	52.3%
County of Allegheny	62.7%	64.8%	61.9%	66.2%
Pittsburgh PMSA	63.4%	67.8%	69.0%	72.6%
Pennsylvania	68.3%	68.0%	64.2%	70.6%
Median Value of Owner-Occupied Housing:				
City of Pittsburgh	$11,000	$12,500	$31,500	$41,200
County of Allegheny	12,300	16,000	43,300	57,100
Pittsburgh PMSA	12,900	15,300	42,800	51,800
Pennsylvania	10,200	13,600	39,100	69,700
Number of Persons per Housing Unit:				
City of Pittsburgh	3.1	2.8	2.4	2.5
Total County Housing Units:				
Percent of City of Pittsburgh	37.4%	35.5%	31.4%	29.3%

Source: U.S. Census of Housing

From 1960 to 1990 the number of housing units in the County increased by 15.5%, while the number of housing units in the City decreased by 9.7%. Over the same period, the number of persons per housing unit in the City decreased 19% and the population declined by 27.1%.

TABLE C-10
COUNTY OF ALLEGHENY
AVERAGE SALE PRICE OF RESIDENTIAL PROPERTY
1982 TO 1994
(MARKET TRANSACTIONS)

Year	County of Allegheny
1982	$ 60,520
1983	62,347
1984	62,598
1985	65,052
1986	69,002
1987	74,298
1988	78,609
1989	82,247
1990	88,623
1991	99,818
1992	102,742
1993	105,538
1994	105,399

Source: City of Pittsburgh, Department of City Planning
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"), HOME, 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 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

The data in Table C-11 shows the trend in per capita income for the Pittsburgh PMSA, Allegheny County and Commonwealth.

TABLE C-11
PITTSBURGH PMSA, COUNTY AND COMMONWEALTH
PER CAPITA INCOME

	1969	1979	1989	% Change 1979-1989
Pittsburgh PMSA	$3,149	$7,698	$13,785	+79.1%
Allegheny County	$3,321	$7,986	$15,115	+89.3%
Pennsylvania	$3,066	$7,077	$14,068	+98.8%

APPENDIX D

Consulting Engineer's Report

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

July 17, 1995

CHESTER
ENVIRONMENTAL

P.O. Box 15851 · Pittsburgh, PA 15244
412-269-5700 · Fax 412-269-5749

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CHESTER
ENVIRONMENTAL

Ref. No. 3548-06

July 17, 1995

Mr. Glenn M. Cannon
Executive Director
The Pittsburgh Water and Sewer Authority
441 Smithfield Street
Pittsburgh, Pennsylvania 15222-2219

Dear Mr. Cannon:

Re: Engineering and Financial
Feasibility Study
Proposed Capital Improvement Program
Acquisition of Capital Assets

We are pleased to present the attached report which evaluates the ability of the Authority to meet its operating expenses and other financial requirements, including the additional Debt Service requirements associated with the proposed 1995 Series A and Series B Water Revenue Bonds required to fund the proposed Capital Improvement Program and Acquisition of Capital Assets.

This study for the five year period ending December 31, 1999 indicates that the Authority's Rate Covenant of 1.20 will be satisfied in each Fiscal Year of the study period provided that the water rate increases as noted in the report are adopted.

We trust that this report will aid the Authority in arranging financing for the proposed improvements and acquisition of capital assets.

Very truly yours,

Donald W. Bertram, P.E.
Vice President
Construction Services Division

DWB/hms

Enclosure

441 Smithfield Street
Pittsburgh, Pennsylvania 15222-2219
412-232-4411; Fax 412-232-4420

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THE PITTSBURGH WATER AND SEWER AUTHORITY

ENGINEERING AND FINANCIAL FEASIBILITY STUDY

TABLE OF CONTENTS

SECTION I - Purpose and Scope of Study I-1

SECTION II - Proposed Capital Improvement Program II-1

SECTION III - Acquisition of Capital Assets III-1

SECTION IV - Proposed Bond Issue IV-1

SECTION V - Forecast of Operating Expenses V-1

SECTION VI - Revenue Forecast ..... VI - 1

SECTION VII - Rate Covenant Analysis VII-1

EXHIBIT A - Projection of Expenditures from Construction Fund
EXHIBIT B - Water Sales Forecast
EXHIBIT C - Earned Interest - Construction Funds
EXHIBIT D - Earned Interest - Debt Service Funds
EXHIBIT E - Earned Interest - Debt Service Reserve Funds
EXHIBIT F - Earned Interest - Other Funds

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION I
PURPOSE AND SCOPE OF STUDY

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SECTION I
PURPOSE AND SCOPE OF STUDY

A. PURPOSE OF STUDY

Funding for the current Capital Improvement Program implemented in 1984 is almost depleted. 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 Systems, additional funding is required.

A Proposed Capital Improvement Program was developed which addresses the identified and anticipated needs of the Authority over the next six years (from mid-1995 to mid-2001). This total program was presented in a report entitled "Proposed Capital Improvement Program, 1995-2001" prepared by Chester Environmental and dated March 1, 1995. This report addresses the proposed capital improvements scheduled to be implemented during the period from mid-1995 through mid-1998 (Phase I). The Authority approved Resolution No. 65 at their board meeting held May 19, 1995, which provided for the issuance and sale of Water and Sewer System Revenue Bonds for the purpose of providing funds for the Phase I Capital Improvement Program.

The Authority approved Resolution No. 47 of 1995 at their board meeting held March 13, 1995. This resolution provided for authorization, issuance and sale of Water and Sewer System Subordinate Revenue Bonds for the purpose of providing funds for the Authority to acquire the Water and Sewer System from the City of Pittsburgh pursuant to the terms of a Capital Lease Agreement between the Authority and the City of Pittsburgh.

The Pittsburgh Water and Sewer Authority will provide funds for the proposed Capital Improvement Program (Phase I) and for the Acquisition of Capital Assets through the issuance of 1995 Series A and Series B Water and Sewer Revenue Bonds.

The Authority received sealed proposals for the sale of the 1995 Series A and Series B Water and Sewer Revenue Bonds on July 12, 1995. The Bonds were awarded to the Underwriter offering the lowest true interest cost to the Authority. The successful Underwriter for both the Series A and Series B Bonds was Prudential Securities and the financial data in reference to these Bonds as contained in this report are based upon Prudential Securities' proposal.

The purpose of this study is to evaluate the ability of the Authority to meet its operating expenses and other financial requirements, including debt service requirements associated with the current indebtedness and the proposed 1995 Series A and Series B Bonds, during the five-year period ending December 31, 1999.

B. SCOPE OF STUDY

The scope of this study included a review of the proposed Phase I Capital Improvement Program and Capital Lease Agreement, forecasts of operating

expenses and revenue and analysis of the Authority's Rate Covenant based upon these forecasts and proposed bond issue financial requirements. The results of this study are presented in the following sections of this report:

Section	Description
II	Proposed Capital Improvement Program
III	Acquisition of Capital Assets
IV	Proposed Bond Issue
V	Forecast of Operating Expenses
VI	Revenue Forecast
VII	Rate Covenant Analysis

Backup data supporting the forecasts are included in Exhibits to the report as entitled in the Table of Contents.

The revenue forecasts as included herein are based upon the following assumed annual water rate increases, across all user segments, for the period ending December 31, 1999:

Year	Percentage Increase	Effective Date
1995	9.9%	October 1, 1995
1996	9.9%	October 1, 1996
1997	0.0%	-
1998	5.3%	January 1, 1998
1999	4.4%	January 1, 1999

The 9.9 percent water rate increases effective October 1, 1995 and October 1, 1996 were adopted by The Pittsburgh Water and Sewer Authority by Resolution No 74 of 1995 at their meeting of June 9, 1995.

The revenue forecasts further anticipate the reduction in sales to Pennsylvania American Water Company from 4.0 million gallons per day to 2.0 million gallons per day beginning in October 1996. It further anticipates the sale of water to Fox Chapel beginning in October 1996 at a rate of 1.75 million gallons per day and the sale of water to Shaler Township beginning in October 1997 at a rate of 3.0 million gallons per day.

Based upon the forecasted operating expenses, revenues and annual debt service costs, the rate covenant analysis indicates that the minimum Debt Service Coverage Factor of 1.20 will be satisfied in each Fiscal Year through December 31, 1999.

THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION II
PROPOSED CAPITAL IMPROVEMENT PROGRAM

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SECTION II
PROPOSED CAPITAL IMPROVEMENT PROGRAM

A. GENERAL

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

Funding for the current Capital Improvement Program is almost depleted. 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 Systems, additional funding is required. In determining the future funding requirements, the following factors and conditions were considered:

- Identified improvements not currently funded.
- Rehabilitation and/or replacement of existing facilities which exceed their useful lives.
- Improvements required for sale of water to communities within the region.
- Water and Sewer System improvements required in association with planned City Capital Improvement Projects and URA planned redevelopment projects.
- Improvements required under current and anticipated safe drinking water standards.
- Implementation of Combined Sewer Overflow Controls as required by the U.S. Environmental Protection Agency.

Following is a brief discussion regarding each of these factors:

1. Identified Projects

   A number of required improvements to the Water and Sewer Systems have been identified over the past year which are not funded under the current Capital Improvement Program. These improvements are critical for the continued safe service to the Authority's users.

2. Rehabilitation / Replacement of Aged Facilities

   A significant portion of the Authority's facilities, including the Water System's pump stations, storage facilities and water distribution system and sewage collection system, is over 70 years old, with portions of the Sewer System reaching nearly 150 years in age. Due to the age of these systems, a program to rehabilitate and/or replace a portion of

such facilities annually has been established. In order to maintain a high level of continuous service to the Authority's users, such annual programs must be maintained. In addition, changing development conditions within the service area place higher demands for water service and increased sewage flows in various portions of the system which exceed current system capacities.

3. Regional Sale of Water

Over the past year, the Authority has undertaken a very aggressive marketing effort to sell potable water to municipalities and municipal authorities within the region. The Authority's water treatment plant is capable of providing significantly more water than currently being used by its existing consumers. Sale of this available water to regional communities is a source of new revenue to the Authority. To realize this potential revenue, the Authority will be required to construct water lines or improve pumping facilities to serve some of the regional communities.

4. City and URA Projects

Under the City of Pittsburgh Six Year Capital Improvement Program a number of projects involving major street reconstruction are included. As a part of such reconstruction, water and sewer facilities within the street right-of-way must be replaced. The Pittsburgh Urban Redevelopment Authority (URA) has a number of industrial and residential redevelopment projects planned in various areas of the City. To serve such redevelopment projects, improvements to the Authority's Water and Sewer Systems are required.

5. 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) require the production of a higher quality of water through the Authority's water treatment plant. To comply with these standards, improvements and modifications to the facility are necessary. It is noted that this proposed Capital Improvement Program does not include the covering of the Highland No. 1 and Highland No. 2 Reservoirs as mandated by the Pennsylvania Safe Drinking Water Act which requires "all finished water storage reservoirs be covered to prevent recontamination of water before consumption by the public". A study is currently underway to determine the method and costs of covering these reservoirs and such costs could require the issuance of additional bonds in the future.

6. Combined Sewer Overflows

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 stormwater 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. In addition, the owner must implement the EPA's "Nine Minimum Control Measures" by January 1, 1997. Essentially all of the Authority sewers are combined sewers and there are well over 100 CSOs within the system. The most efficient and cost effective method of eliminating or controlling the CSOs is unknown; however, the Authority will be 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.

Based upon the previously noted factors and conditions and evaluations of the existing Water and Sewer Systems, a Proposed Capital Improvement Program was developed which addresses the identified and anticipated needs of the Authority over the next six years (from mid-1995 to mid-2001). This total program was presented in a report entitled "Proposed Capital Improvement Program, 1995-2001" prepared by Chester Environmental and dated March 1, 1995. This feasibility study addressed the proposed capital improvements scheduled to be implemented during the period form mid-1995 through mid-1998 (Phase I). For information regarding the total program and a brief description of each project, please refer to the above noted report.

B. WATER DISTRIBUTION SYSTEM

Following is a listing and the estimated cost of each project included in the Proposed Capital Improvements for the Authority's Water Distribution System as addressed in this study:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
WATER DISTRIBUTION SYSTEM

	Description	Phase I
1.	Dinwiddie Street	$ 500,000
2.	William Street - Arlington to Cola	550,000
3.	Grandview Ave. - Plymouth to Shaler	400,000
4.	Water Service to Fox Chapel	1,500,000
5.	Water Line - Lincoln Pump Sta. to Tank	2,000,000
6.	Party Line Separations	750,000
7.	City Asphalt	300,000
8.	Emergency Water Line Contracts	1,200,000
9.	Annual Valve Contracts	1,000,000
10.	Annual Water Line Contracts	1,000,000
11.	Annual Fire Hydrant Repl. Contracts	600,000
12.	Purchase of Meters	450,000
13.	Purchase of Materials	600,000
	TOTALS	$10,850,000

C. PUMPING AND STORAGE FACILITIES

Following is a listing of Pumping and Storage Facility projects included in the Proposed Capital Improvement Program:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
PUMPING AND STORAGE FACILITIES

	Description	Phase I
1.	Lanpher Reservoir - Valves	$ 500,000
2.	Lanpher Reservoir - Line and Cover	2,000,000
3.	Venturi Program	250,000
4.	Switchgear at Pump Stations	500,000
5.	Limitorque Operators - Brilliant Pump Sta.	750,000
6.	Electric Check Valves - Brilliant Pump Sta.	750,000
7.	Pumps, Motors & Switchgear - Highland Pump Sta.	250,000
8.	HVAC Improvements at Pump Sta.	350,000
9.	Inspect 72-Inch Suction Lines	100,000
	TOTALS	$ 5,450,000

D. WATER TREATMENT PLANT

An in-depth evaluation of the Authority's water treatment plant was conducted in early 1994 by the consulting engineering firm of Malcolm Pirnie, Inc. The following listing of projects included in the Proposed Capital Improvement Program for the treatment plant was based upon this evaluation:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
WATER TREATMENT PLANT

	Description	Phase I
1.	Rehab. of Water Quality Laboratory	$800,000
2.	Filter Backwash System	1,600,000
3.	Chemical, Chlorine and Sludge Handling	10,500,000
4.	Hydrofluosilicic Acid	65,000
5.	Clearwell Inspection	45,000
6.	East and West Water Intakes	400,000
	TOTALS	$ 13,410,000

E. MISCELLANEOUS TOOLS AND EQUIPMENT

In order to properly maintain the Water System and to maintain a certified water quality testing laboratory, there is a continual need to replace and/or update existing tools and equipment. Annually, funds must be provided for these needs. It is estimated that $250,000 is needed annually for this purpose.

F. MISCELLANEOUS PROJECTS

Miscellaneous projects including the computerized AM/FM system and the Authority's billing system have been identified for inclusion in the Proposed Capital Improvement Program:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
MISCELLANEOUS PROJECTS

	Description	Phase I
1.	AM/FM Program	$ 1,500,000
2.	Computerized Billing System	1,000,000
	TOTALS	$ 2,500,000

G. SEWER SYSTEM

The proposed projects for the Sewer System included in the Proposed Capital Improvement Program are listed below:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
SEWER SYSTEM

	Description	Phase I
1.	Annual Sewer Contract	$ 1,500,000
2.	Annual Manhole & Catch Basin Contract	1,500,000
3.	Emergency Sewer Line Contracts	1,500,000
4.	Tools and Equipment	750,000
5.	Sewage Pump Station Improvements	500,000
6.	CSOs - Engineering	1,500,000
7.	CSOs - Implementation	1,000,000
8.	McNeilly Road	400,000
9.	Dawn Avenue	300,000
10.	Maddock Place	75,000
11.	Streets Run/Lincoln Place	350,000
12.	California Avenue	1,200,000

13.	Sewer Lining	1,000,000
14.	Merchant Street	2,000,000
15.	Carnegie Mellon	2,000,000
16.	South 11th Street	150,000
17.	Strachen Street	250,000
18.	Ellsworth/Morewood	750,000
19.	Dinwiddie Street	750,000
20.	Verner Avenue	50,000
21.	Sewer Cleaning and TV Inspection	300,000
22.	Unsewered Areas	800,000
	TOTALS	$ 18,625,000

H. CITY AND URA PROJECTS

Based upon information provided by the City of Pittsburgh and the Urban Redevelopment Authority, the following projects were included in the Proposed Capital Improvement Program:

PROPOSED CAPITAL IMPROVEMENT PROGRAM
CITY AND URA PROJECTS

	Description	Phase I
1.	Fifth Avenue/Ross - Phase II	$ 1,325,000
2.	Wood Street	750,000
3.	Ft. Duquesne Boulevard	342,000
4.	Walbridge	685,000
5.	Suffolk/Coleman/Penelope	473,000
6.	South 30th Street	50,000
7.	Ft. Pitt Boulevard	380,000
8.	Greenfield Avenue Bridge	150,000
9.	Panther Hollow Bridge	130,000
10.	Meadow Street Bridge	10,000
11.	Voscamp - Slide Repair	300,000
12.	Station Square Road	550,000
13.	Crawford Square - URA	500,000
14.	South Side Riverfront Housing - URA	900,000
15.	South Side Industrial Redev. - URA	1,000,000
16.	North Shore Project - URA	500,000
17.	Nine Mile Run Redev. - URA	1,000,000
	TOTALS	$ 9,045,000

I. CAPITAL IMPROVEMENT PROGRAM COST SUMMARY

Following is a summary of the total Proposed Capital Improvement Program as presented herein. This presents the estimated total costs including allowances for engineering and contingencies.

PROPOSED CAPITAL IMPROVEMENT PROGRAM
SUMMARY

Description		Phase I
Water Distribution System		$ 10,850,000
Pumping and Storage Facilities		5,450,000
Water Treatment Plant		13,410,000
Miscellaneous Tools and Equipment		750,000
Miscellaneous Projects		2,500,000
Sewer System		18,625,000
City and URA Projects		9,045,000
	SUBTOTAL	$ 60,630,000
Engineering at 14%		8,900,000
	SUBTOTAL	$ 69,530,000
Contingencies at 15%		10,470,000
	TOTALS	**$ 80,000,000**

J. PROJECTION OF EXPENDITURES

In conjunction with the development of the Proposed Capital Improvement Program, a review was made of each project to determine the anticipated start and ending date of each and the expenditure of funds during that period. It is recognized that although this program is presented as a three-year program, the actual expenditure of funds will extend beyond the three-year period. In the preparation of this projection it has been assumed that funds for this program will be available during the third quarter of 1995.

Following is a summary of the projection of expenditures for each year. Details as to these expenditures by each project are included in Exhibit A:

SUMMARY
PROJECTION OF EXPENDITURES

Year		Phase I
1995		$ 4,500,000
1996		23,000,000
1997		24,000,000
1998		23,000,000
1999		5,500,000
	TOTALS	$ 80,000,000

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION III
ACQUISITION OF CAPITAL ASSETS

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SECTION III
ACQUISITION OF CAPITAL ASSETS

The Pittsburgh Water and Sewer Authority approved Resolution No. 47 of 1995 at their board meeting held March 31, 1995. This resolution provided for authorization, issuance and sale of Water and Sewer System Subordinate Revenue Bonds for the purpose of providing funds for the Authority to acquire the Water and Sewer System from the City of Pittsburgh pursuant to the terms of a Capital Lease Agreement between the Authority and the City of Pittsburgh.

Resolution No. 47 of 1995 further provided for the Authority and the City to (1) terminate the existing Lease and Management Agreement, (2) enter into a Capital Lease Agreement providing the terms of acquisition of the Water and Sewer System by the Authority and (3) enter into a Cooperation Agreement providing for the City's undertaking to provide certain services for the Authority.

The City of Pittsburgh approved this action at a meeting of City Council on April 11, 1995.

Under the terms of the existing Lease and Management Agreement the Authority is obligated to pay annually to the City (1) the Debt Service on City General Obligation Debt incurred prior to the formation of the Authority allocable to the Water and Sewer System and (2) an additional payment in consideration of the lease.

The City General Obligation Debt will be paid off in the year 2008. Table III-1 presents the schedule of payments from the Authority to the City under this obligation for the period 1996 through 2008.

The Additional Payment is defined in the Authority's Trust Indenture dated October 15, 1993 as follows:

"The term "Additional Payment" shall mean the amount billed by the City to the Authority pursuant to the Lease and Management Agreement. Such amount not to exceed, for the Authority's 1991 Fiscal Year the sum of $4,228,200, which amount shall increase for each Fiscal Year thereafter by an amount equal to the percentage increase in the "Consumer Price Index for all Urban Consumers" (1982-1984=100) as published by the U.S. Department of Commerce, or if not published, a similar index."

Since 1991 this payment has increased slightly over three percent per year. For purposes of this study the Additional Payment has been set at a maximum of $5,000,000 annually.

TABLE III-1
PROJECTED G.O. DEBT AND ADDITIONAL PAYMENT
TO THE CITY OF PITTSBURGH

Year	G.O. Debt	Additional Payment	Total
1996	$ 2,609,000	$ 5,000,000	$ 7,609,000
1997	2,421,000	5,000,000	7,421,000
1998	2,247,000	5,000,000	7,247,000
1999	2,130,000	5,000,000	7,130,000
2000	2,129,000	5,000,000	7,129,000
2001	2,560,000	5,000,000	7,560,000
2002	2,781,000	5,000,000	7,781,000
2003	2,788,000	5,000,000	7,788,000
2004	2,798,000	5,000,000	7,798,000
2005	2,813,000	5,000,000	7,813,000
2006	2,819,000	5,000,000	7,819,000
2007	2,362,000	5,000,000	7,362,000
2008	983,000	5,000,000	5,983,000

Under the terms of the Capital Lease Agreement approved by Resolution 47 of 1995, the Authority shall pay to the City an estimated sum of $85,000,000 to acquire the Water and Sewer System, as described in the agreement.

To provide for funds for the payments due under the Capital Lease, the Authority proposed to issue Water and Sewer System Subordinate Revenue Bonds in accordance with Resolution No. 47 of 1995. This resolution, however, conditioned the bond sale on the net Annual Debt Service Payments on the bonds (after credit for earnings on related reserve funds) not to exceed the total projected payments to the City shown in Table III-1 by more than $5,000 in any one year. With this condition being satisfied, the issuance and sale of Water and Sewer System Subordinate Revenue Bonds will have no impact on the Water and Sewer Rates of the Authority's consumers.

THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION IV
PROPOSED BOND ISSUE

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SECTION IV
PROPOSED BOND ISSUE

A. GENERAL

The Pittsburgh Water and Sewer Authority proposes to provide funds for the Capital Improvement Program described in Section II of this report and for the Acquisition of Capital Assets as discussed in Section III, through the issuance of 1995 Series A and Series B Water and Sewer Revenue Bonds.

B. CAPITAL IMPROVEMENT BONDS

The proposed 1995 Series A Water and Sewer System Revenue Bonds will provide funds for the $80,000,000 Capital Improvement Program defined in Section II of this report. These bonds will be issued under the terms and conditions of the Trust Indenture dated as of October 15, 1993 as amended and supplemented by a First Supplemental Indenture. The 1995 Series A Bonds will be in the principal amount of $89,850,000 having interest rates ranging from 4.0 to 5.794 percent and maturing not later than the year 2025. Table IV-1 indicates the anticipated source and uses of funds:

TABLE IV-1
1995 CAPITAL IMPROVEMENT BONDS
SERIES A
SOURCE AND USES OF FUNDS

SOURCE OF FUNDS	
Principal	$ 89,850,000.00
Less: Original Issue Discount	(1,256,657.70)
Less: Allowance for Underwriter's Discount	(539,100.00)
Net Bond Proceeds	88,054,242.30
Accrued Interest	159,806.83
TOTALS	$ 88,214,049.13
USE OF FUNDS	
Deposit to Construction Fund	$ 80,000,000.00
Deposit to Debt Service Reserve Fund	6,352,000.00
Deposit to Debt Service Fund (Accrued Interest)	159,139.48
Cost of Issuance	1,700,139.48
Rounding	2,102.82
TOTALS	$ 88,214,089.13

The Debt Service Payments for the 1995 Capital Improvement Bonds (Series A) through the year 1999 (the period of this study) will be as shown in Table IV-2:

TABLE IV-2
1995 CAPITAL IMPROVEMENT BONDS
SERIES A
DEBT SERVICE PAYMENTS

Date	Principal	Interest	Semiannual Debt Service	Annual Debt Service
01-Mar-96		$ 3,009,695	$ 3,009,695	
01-Sep-96		2,397,102	2,397,102	$ 5,406,797
01-Mar-97		2,397,102	2,397,102	
01-Sep-97		2,397,102	2,397,102	4,794,204
01-Mar-98		2,397,102	2,397,102	
01-Sep-98	$ 1,555,000	2,397,102	3,952,102	6,349,204
01-Mar-99		2,366,002	2,366,002	
01-Sep-99	1,615,000	2,366,002	3,981,002	6,347,004

C. ACQUISITION OF CAPITAL ASSETS BONDS

To provide funds required under the Capital Lease Agreement between the City of Pittsburgh and The Pittsburgh Water and Sewer Authority, the Authority proposes to issue Water and Sewer System Subordinate Revenue Bonds, Series B of 1995. These bonds will be issued under a Subordinate Trust Indenture, which will be entered into between the Authority and the trustee.

These bonds will be in the principal amount of $103,020,000 having interest rates ranging from 4.0 to 5.75 percent with a final maturity in the year 2025. Table IV-3 indicates the anticipated source and use of funds:

TABLE IV-3
WATER AND SEWER SYSTEM SUBORDINATE REVENUE BONDS
SERIES B OF 1995

SOURCE OF FUNDS	
Principal	$ 103,020,000.00
Less: Original Issue Discount	(1,052,444.70)
Plus: Original Issue Premium	18,784.70
Less: Allowance for Underwriter's Discount	(841,673.40)
Net Bond Proceeds	101,144,666.60
Accrued Interest	179,743.83
TOTALS	$ 101,324,410.43
USE OF FUNDS	
Deposit to Acquisition Fund	$ 92,862,666.60
Deposit to Debt Service Reserve Fund	8,282,000.00
Deposit to Debt Service Fund (Accrued Interest)	179,743.83
TOTALS	$ 101,324,410.43

The Debt Service Payment for these bonds through the period of this study (year 1999) is as shown in Table IV-4:

TABLE IV-4
WATER AND SEWER SUBORDINATE REVENUE BONDS
SERIES B OF 1995
DEBT SERVICE PAYMENTS

Date	Principal	Interest	Semiannual Debt Service	Annual Debt Service
01-Mar-96		$ 3,385,176	$ 3,385,176	
01-Sep-96	2,035,000	2,696,158	4,731,158	8,116,333
01-Mar-97		2,655,458	2,655,458	
01-Sep-97	2,575,000	2,655,458	5,230,458	7,885,915
01-Mar-98		2,603,958	2,603,958	
01-Sep-98	2,505,000	2,603,958	5,108,958	7,712,915
01-Mar-99		2,553,858	2,553,858	
01-Sep-99	2,490,000	2,553,958	5,043,858	7,597,715

As indicated in Table IV-3, $8,282,000 will be deposited into the Debt Service Reserve Fund from the proceeds of the Series B of 1995 Bond Issue. With estimated earnings of 5.6196 percent annually from the funds on deposit in the Debt Service Reserve Fund, which earnings will be transferred to the Debt Service Fund to be applied to the Annual Debt Service Payment, the net Annual Debt Service will be as shown in Table IV-5. For comparison, Table IV-5 also shows the projected payments to the City for G.O. Debt and Additional Payment pursuant to the existing Lease and Management Agreement:

TABLE IV-5
NET DEBT SERVICE PAYMENTS
vs.
PROJECTED G.O. DEBT AND ADDITIONAL PAYMENTS

Year	Gross Annual Debt Service	DSRF Earnings	Net Annual Debt Service	Projected City Payments
1996	$ 8,116,333	$ 509,371	$ 7,606,962	$ 7,609,000
1997	7,885,915	465,415	7,420,500	7,421,000
1998	7,712,915	467,415	7,247,500	7,247,000
1999	7,597,715	467,415	7,132,300	7,130,000

As can be seen from Table IV-5, the net Annual Debt Service Payments on the bonds (after credit for earnings on related reserve funds) do not exceed, by more than $5,000 in any one year, the total projected payments to the City for G.O Debt and Additional pursuant to the existing Lease and Management Agreement.

D. TOTAL DEBT SERVICE REQUIREMENTS

The total Debt Service requirements of the Authority, based upon the existing Series A and B of 1993 Bonds and the proposed Series A and B of 1995 Bonds, will be as indicated in Table IV-6:

TABLE IV-6
TOTAL DEBT SERVICE PAYMENTS

Year	1993 Series A	1993 Series B	1995 Series A	1995 Series B	Total
1995	$ 17,723,955	$ 539,250	$ 0	$ 0	$ 18,263,205
1996	19,165,885	539,250	5,406,798	8,116,333	33,228,266
1997	19,877,810	539,250	4,794,205	7,885,915	33,097,180
1998	21,305,372	539,250	6,349,205	7,712,915	35,906,742
1999	21,306,922	539,250	6,347,005	7,597,715	35,790,892

THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION V
FORECAST OF OPERATING EXPENSES

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SECTION V
FORECAST OF OPERATING EXPENSES

A. GENERAL

The projection of Operating Expenses of The Pittsburgh Water and Sewer Authority has been forecasted based on a review of the historical expenses and the anticipated level of operations during the forecast period (1995 through 1999). The historical operating expenses have been taken from Audited Financial Statements of the Authority for the years ending December 31, 1991 through December 31, 1994.

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 System to the Authority with the Authority reimbursing the City for all Direct Expenses actually incurred and expended by the City. In addition, the Authority paid to the City 1) an amount equal to the Indirect Expenses billed to the Authority by the City, and 2) the Additional Payment.

The proposed Capital Lease Agreement and Cooperation Agreement between the Authority and City as authorized in Resolution No 47 of 1995 terminates the current relationship between the City and the Authority with respect to operation and maintenance of the Water System. The proposed Cooperation Agreement does provide for the City to render certain services to the Authority as defined in the agreement. The proposed agreement also provides for the basis of payment for such services to be rendered by the City. As of January 1, 1995, however, 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.

The forecasted Operating Expenses are based on the provisions of this proposed Cooperation Agreement.

B. HISTORICAL OPERATING EXPENSES

Table V-1 presents the Audited Schedule of Operating Expenses of the Authority for the years ending December 31, 1991 through December 31, 1994. This table also presents the current 1995 Operating Budget of the Authority. The 1995 Operating Budget reflects the proposed changes under the new Cooperation Agreement. Cost allocations in the current 1995 Operating Budget of the Authority have been reassigned from previous years to reflect the new organization resulting from the Authority's employment of the staff of the City's Water Department on January 1, 1995. Specifically these reassignments are as follows:

1. The line item for "Authority General and Administrative Expenses" has been eliminated and the associated expenses assigned to the applicable line items under "Water Expenses".

2. The "Engineering Salaries" have been increased to reflect the addition of certain employees previously employed in the City Department of Engineering and Construction and the Department of Public Works.

3. F.I.C.A./Unemployment Expenses, for previous employees of the City and now employed by the Authority, have been eliminated from "Water Department Indirect Costs" and included under "Water Expenses".

TABLE V-1
HISTORICAL OPERATING EXPENSES
(In Thousands)

	1991	1992	1993	1994	Budget 1995
WATER EXPENSES:					
Wages and Salaries:					
Administrative	$1,170	$1,123	$1,213	$1,223	$1,700
Distribution Div.	3,046	3,255	3,456	3,545	3,620
Purification & Pumping	1,562	1,559	1,499	1,482	1,764
Engineering	188	172	138	118	324
Premium Pay	441	414	474	468	509
Total Wages & Salaries	6,407	6,523	6,780	6,836	7,917
Utilities	3,858	3,451	3,682	3,566	4,695
Miscellaneous Services	1,281	1,367	1,600	1,200	1,645
Chemicals	881	1,128	1,120	1,108	1,500
Materials	716	895	696	549	823
Workmen's Compensation	580	617	678	712	638
F.I.C.A.	-	-	-	-	785
Professional Services	-	-	-	-	281
Repairs	312	542	891	659	836
Supplies	114	180	165	144	254
Equipment	174	90	159	55	154
Refunds	294	209	94	98	100
Education & Training	13	12	20	9	15
Water Indirect Costs	4,544	4,828	5,788	5,098	4,756
TOTAL WATER EXPENSES	19,174	19,842	21,673	20,034	24,399
SEWER DIRECT & INDIRECT	4,251	4,272	4,046	3,651	4,483
CITY EXPENSES					
General Obligation Debt	3,338	3,228	3,145	3,051	2,136
Additional Payment	4,228	4,440	4,591	4,737	4,845
Prior Year's Employee Benefits	-	-	901	-	-
TOTAL CITY EXPENSES	7,566	7,668	8,637	7,788	6,981
SUBSIDY NON-CITY WATER CUSTOMERS	2,915	2,819	2,808	2,715	3,328
AUTHORITY GENERAL & ADMINISTRATION	745	659	826	770	0
TOTAL OPERATING EXPENSES	$34,651	$35,260	$37,990	$34,958	$39,191

C. FORECAST OF OPERATING EXPENSES

The projected 1995 Operating Expenses have been based on 1994 actual costs with adjustments made to reflect the planned level of operations and the new Cooperation Agreement between the Authority and the City of Pittsburgh. Significant factors considered in this projection were:

1. New Labor Agreements negotiated the first of the year for all union employees provide for a three percent salary increase effective July 1, 1995. The Authority has approved a similar three percent salary increase for non-union employees plus salary adjustments for some management positions which also became effective July 1, 1995.

2. The Capital Lease Agreement and the new Cooperation Agreement provide for the termination of payments to the City for General Obligation Debt and the Additional Payment. Thus, assuming this takes place approximately the first of July, only 50 percent of these scheduled 1995 costs will be incurred.

3. The projected salaries for the Engineering Division were increased to reflect the addition of four staff members who were previously employed by the City in its Departments of Engineering and Construction and Public Works.

The forecasted Operating Expenses for the study period (1996 through 1999) were based on using 1995 as the base year. From this base year, forecasted Operating Expenses were based on the following:

1. The new labor agreements provide for the following scheduled salary increases:

   3% effective July 1, 1995
   3% effective January 1, 1996
   3% effective January 1, 1997
   3% effective January 1, 1998

   It has been assumed similar salary increases will be given to non-union employees. For 1999 a four percent salary increase for all employees has been used.

2. It is anticipated that in 1996 the Authority will add a Controller and Human Resources Director to its staff.

3. Payments to the City for services rendered under the new Cooperation Agreement are forecasted to increase at a rate of five percent per year. It is noted that in the future such services may be performed directly by the Authority or subcontracted to outside vendors. This would only occur if the associated cost would be less than they would be through the City.

4. Sewer costs are forecasted to increase at a rate of five percent per year.

5. Utility expenses are forecasted to increase at three percent per year. The operating staff has recently instituted a program to reduce energy costs through its pumping operations. It is felt this program will significantly reduce electrical power requirements in the coming years.

6. The forecasted requirements for Customer Refunds have been held level throughout the study period. A review of the historical information regarding this item shows that this has been reduced from $284,000 in 1991 to $100,000 in 1994. This has been a result of improved billing procedures implemented by the Authority and it is expected this will continue in the future.

7. The forecast for Subsidy to Non-City Water Customers has been made at three percent per year. This subsidy is a result of the differential in rates between the Authority and those of Pennsylvania American Water Company. It is felt this differential will grow only slightly during the study period.

8. All other expenses have been forecasted to increase at a rate of four percent per year.

Based upon the above considerations, Table V-2 presents the actual 1994, the projected 1995 and the forecasted 1996 through 1999 Operating Expenses for The Pittsburgh Water and Sewer Authority. The actual 1994 expenses reflect redistribution of the Authority General and Administrative Costs into applicable water expenses:

TABLE V-2
FORECASTED OPERATING EXPENSES
(In Thousands)

	Actual 1994	1995	1996	1997	1998	1999
WATER EXPENSES:						
Wages and Salaries:						
Administrative	$1,486	$1,615	$1,788	$1,841	$1,897	$1,972
Distribution Div.	3,545	3,620	3,783	3,896	4,013	4,174
Purification & Pumping	1,482	1,600	1,672	1,722	1,774	1,845
Engineering	118	324	339	349	359	374
Premium Pay	468	500	523	538	554	576
Total Wages & Salaries	7,099	7,659	8,105	8,346	8,597	8,941
Utilities	3,565	4,500	4,635	4,774	4,917	5,065
Miscellaneous	1,468	1,640	1,706	1,774	1,845	1,919
Chemicals	1,108	1,200	1,260	1,323	1,389	1,459
Materials	549	750	780	811	844	877
Workmen's Compensation	772	750	784	807	831	865
F.I.C.A.	543	590	617	635	654	680
Professional Services	180	281	289	298	307	316
Repairs	659	695	723	752	782	813
Supplies	144	150	156	162	169	175
Equipment	55	154	160	167	173	180
Refunds	98	100	100	100	100	100
Education & Training	9	15	16	16	17	17
Water Indirect Costs	4,555	4,756	4,994	5,243	5,506	5,781
TOTAL WATER EXPENSES	20,805	23,240	24,325	25,208	26,131	27,188
SEWER DIRECT & INDIRECT	3,651	4,483	4,707	4,943	5,190	5,449
CITY EXPENSES						
General Obligation Debt	3,051	1,068	0	0	0	0
Additional Payment	4,737	2,423	0	0	0	0
TOTAL CITY EXPENSES	7,788	3,491	0	0	0	0
SUBSIDY NON-CITY WATER CUSTOMERS	2,715	2,800	2,884	2,971	3,060	3,151
TOTAL OPERATING EXPENSES	$34,958	$34,014	$31,913	$33,122	$34,381	$35,788

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION VI
REVENUE FORECAST

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SECTION VI
REVENUE FORECAST

A. WATER SALES FORECAST

The primary source of income to the Authority is revenue through water sales. To support the operations of the Authority and to provide sufficient funds to pay for the increased Annual Debt Service Costs associated with the 1995 Capital Improvement Program, water rates must be increased over the next five years. The assumed annual rates of these increases across all user segments for the period ending December 31, 1999 are as indicated below:

Year	Percentage Increase	Effective Date
1995	9.9%	October 1,1995
1996	9.9%	October 1,1996
1997	0.0%	-
1998	5.3%	January 1, 1998
1999	4.4%	January 1, 1999

The 9.9 percent water rate increases effective October 1, 1995 and October 1, 1996 were adopted by The Pittsburgh Water and Sewer Authority by Resolution No 74 of 1995 at their meeting of June 9, 1995.

The forecast of revenue from water sales is based on these assumed rate increases. The forecasts as included herein are also based on the following:

1. All billings in any given year are not collectable in that year. It is assumed that the collection rate will be 93 percent.

2. In 1994 and 1995 the Authority instituted a major program to collect delinquent accounts (past year's billing). As a result of this program the Authority collected approximately $3.8 million delinquent accounts in 1994 and it is anticipated they will collect $5.0 million in 1995. It is forecasted that these collections will level out to approximately $2.0 million per year during the study period.

3. The Authority currently has an agreement with Pennsylvania American Water Company to supply four to twelve million gallons of water per day. The initial ten-year term of this agreement expires in September of 1996. Pennsylvania American Water Company has been taking 4.0 million gallons per day under this agreement. This water company has recently constructed a new water treatment plant which increases their supply of water to their consumers. It is anticipated their demand for water from the Authority may therefore decrease in the coming years and this reflected in the extension of this current agreement. The forecast included herein assumes that after October 1, 1996 the Pennsylvania American Water Company will reduce their demand for water from the Authority from 4.0 to 2.0 million gallons per day.

4. Through an aggressive marketing program to sell water to municipalities and municipal authorities within the region, the Authority is currently negotiating contracts with the Borough of Fox Chapel and Shaler Township for the sale of water to these municipalities. Shaler Township is currently constructing a 9.0 million gallon per day pump station adjacent to the Authority's Lanpher Reservoir to enable them to take water from the Authority. Completion of Shaler's pump station and current work at the Lanpher Reservoir will restrict sale of water to Shaler township until mid-1997. It is anticipated that by October 1997 Shaler Township will be purchasing approximately 3.0 million gallons of water per day from the Authority. Certain improvements and modifications to the Fox Chapel water system and installation of a pump station and water line extension are required for Fox Chapel to purchase water from the Authority. Fox Chapel is currently planning their required improvements and it is anticipated they will begin taking water from the Authority by October 1996 at a rate of approximately 1.75 million gallons per day.

Based on the above noted assumed rate increases and the above noted conditions, following is a summary of the Revenue Forecast from Water Sales. For more details of these forecasts see Exhibit B attached hereto:

Year	Water Sales Forecast
1995	$ 57,855,000
1996	59,773,000
1997	64,183,000
1998	68,434,000
1999	71,407,000

B. INTEREST EARNINGS

During the study period (1995 through 1999) another source of significant revenue to the Authority is through interest earned on various restricted and unrestricted funds. These funds consist of:

- Construction Funds
- Debt Service Funds
- Debt Service Reserve Funds
- Revenue Fund
- Operating Reserve Fund

Table VI-1 is a summary of the forecasted interest earnings from the various funds:

TABLE VI-1
INTEREST EARNINGS
(In Thousands)

	1995	1996	1997	1998	1999
Construction Funds	$2,747	$4,016	$2,400	$1,042	$173
Debt Service Funds	231	466	480	549	530
Debt Service Reserve Funds	0	900	822	822	822
Other Funds	337	337	337	337	337
TOTAL	$3,315	$5,719	$4,039	$2,750	$1,862

For details in regard to the forecasted interest earnings from each of these funds, see the following Exhibits attached hereto:

Fund	Exhibit
Construction Funds	C
Debt Service Funds	D
Debt Service Reserve Funds	E
Other Funds	F

C. TRANSFER FROM CONSTRUCTION FUND

The engineering staff previously employed by the City Department of Engineering and Construction and Public Works is assigned to projects under the Capital Improvement Program. Therefore, these salary and benefit costs are reimbursed from the Construction Fund account.

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PITTSBURGH, PENNSYLVANIA

ENGINEERING AND FINANCIAL
FEASIBILITY STUDY
of
PROPOSED CAPITAL IMPROVEMENT PROGRAM
and
ACQUISITION OF CAPITAL ASSETS

SECTION VII
RATE COVENANT ANALYSIS

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SECTION VII
RATE COVENANT ANALYSIS

A. AUTHORITY RATE COVENANT

The Authority's Trust Indenture provides for the fixing and charging by the Authority of rates, rents and charges for the water and sewer service furnished by its Water and Sewer System 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:

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

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.

B. RATE COVENANT CALCULATIONS

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 1995 through 1999 were calculated as shown in Table VII-1.

TABLE VII-1
DEBT SERVICE COVERAGE FACTOR
(In Thousands)

	1995	1996	1997	1998	1999
CASH BEGINNING OF YEAR	$4,657	$7,742	$9,250	$10,569	$11,765
OPERATING REVENUE	57,855	59,773	64,183	68,434	71,407
INTEREST EARNINGS	3,315	5,719	4,039	2,750	1,862
TRANSFER FROM CONSTRUCTION FUND	235	246	253	261	271
TOTAL AVAILABLE FUNDS	66,062	73,480	77,725	82,014	85,305
OPERATING EXPENSES	34,014	31,913	33,122	34,381	35,788
NET AVAILABLE FOR DEBT SERVICE	32,048	41,567	44,603	47,633	49,517
DEBT SERVICE REQUIREMENTS	18,263	33,228	33,097	35,907	35,791
COVERAGE FACTOR	1.75	1.25	1.35	1.33	1.38
ANNUAL PAYMENTS TO DEBT SERVICE FUNDS	24,306	32,317	34,034	35,868	35,793
CASH AT END OF YEAR	$7,742	$9,250	$10,569	$11,765	$13,724

As can be seen from review of Table VII-1, 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 (1995 through 1999).

EXHIBIT A

PROJECTION OF EXPENDITURES
FROM
CONSTRUCTION FUND

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
SUMMARY

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	WATER DISTRIBUTION	10,850,000	800,000	3,950,000	3,100,000	2,800,000	200,000
2.	PUMPING AND STORAGE	5,450,000	650,000	1,050,000	3,250,000	500,000	0
3.	TREATMENT PLANT	13,410,000	0	4,510,000	4,200,000	3,200,000	1,500,000
4.	MISC. TOOLS AND EQUIPMENT	750,000	50,000	250,000	250,000	200,000	0
5.	MISCELLANEOUS PROJECTS	2,500,000	250,000	1,500,000	500,000	250,000	0
6.	SEWER PROJECTS	18,625,000	1,450,000	4,725,000	5,850,000	5,700,000	900,000
7.	CITY AND URA PROJECTS	9,045,000	300,000	1,270,000	3,450,000	3,075,000	950,000
	SUBTOTALS	60,630,000	3,500,000	17,255,000	20,600,000	15,725,000	3,550,000
8.	ENGINEERING	8,900,000	1,000,000	2,300,000	2,300,000	2,300,000	1,000,000
	SUBTOTALS	69,530,000 0	4,500,000	19,555,000	22,900,000	18,025,000	4,550,000
9.	CONTINGENCIES	10,470,000	0	3,445,000	1,100,000	4,975,000	950,000
	TOTALS	80,000,000	4,500,000	23,000,000	24,000,000	23,000,000	5,500,000

CHESTER ENVIRONMENTAL

THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
WATER DISTRIBUTION

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	DINWIDDIE STREET	500,000		500,000			
2.	WILLIAM STREET-ARLINGTON TO COLA	550,000		550,000			
3.	GRANDVIEW AVE.-PLYMOUTH TO SHALER	400,000		400,000			
4.	WATER SERVICE TO FOX CHAPEL	1,500,000	500,000	1,000,000			
5.	WATER LINE-LINCOLN PUMP STA TO TANK	2,000,000			1,000,000	1,000,000	
6..	PARTY LINE SEPARATIONS	750,000		250,000	250,000	250,000	
7.	CITY ASPHALT	300,000		100,000	100,000	100,000	
8.	EMERGENCY CONTRACTS	1,200,000	200,000	400,000	400,000	200,000	
9.	ANNUAL VALVE CONTRACT	1,000,000		100,000	400,000	400,000	100,000
10.	ANNUAL WATERLINE CONTRACT	1,000,000		100,000	400,000	400,000	100,000
11.	ANNUAL FIRE HYDRANT REPLAC CONTRACT	600,000	50,000	200,000	200,000	150,000	
12.	PURCHASE OF METERS	450,000		150,000	150,000	150,000	
17.	PURCHASE OF MATERIALS	600,000	50,000	200,000	200,000	150,000	
	TOTALS	10,850,000	800,000	3,950,000	3,100,000	2,800,000	200,000

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
PUMPING AND STORAGE

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	LANPHER RESERVOIR - VALVES	500,000	500,000				
2.	LANPHER RESERVOIR - LINE & COVER	2,000,000			2,000,000		
3.	VENTURI PROGRAM	250,000		250,000			
4.	UPGRADE SWITCH GEAR AT PUMP STATIONS	500,000			250,000	250,000	
5.	REPLACE VALVES & LIMITORQUE OPER @ BRILLIANT PUMP STATION	750,000			500,000	250,000	
6.	REPLACE ELECTRIC CHECK VALVES ON PUMPS @ BRILLIANT PUMP STA	750,000		250,000	500,000		
7.	NEW HIGHLAND PUMP STATION - REPLACE PUMPS, MOTORS & SWITCH GEAR	250,000		250,000			
8.	HVAC IMPROVEMENTS AT PUMP STATIONS	350,000	150,000	200,000			
9.	INSPECT 72-INCH SUCTION LINES	100,000		100,000			
	TOTALS	5,450,000	650,000	1,050,000	3,250,000	500,000	0

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
TREATMENT PLANT

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	REHABILITION OF WATER LAB	800,000		800,000			
2.	FILTER BACKWASH SYSTEM - PHASE I	1,600,000		600,000	1,000,000		
3.	CHEMICAL, CHLORINE AND SLUDGE HANDLING	10,500,000		3,000,000	3,000,000	3,000,000	1,500,000
4.	HYDROFLUOSILICIC ACID	65,000		65,000			
5.	CLEARWELL INSPECTION	45,000		45,000			
6.	EAST AND WEST INTAKES	400,000			200,000	200,000	
	TOTALS	13,410,000	0	4,510,000	4,200,000	3,200,000	1,500,000

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
MISCELLANEOUS TOOLS & EQUIPMENT

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	MISC. TOOLS & EQUIP - 1995-96	250,000	50,000	200,000			
2.	MISC. TOOLS & EQUIP - 1996-97	250,000		50,000	200,000		
3.	MISC. TOOLS & EQUIP - 1997-98	250,000			50,000	200,000	
	TOTALS	750,000	50,000	250,000	250,000	200,000	0

THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
MISCELLANEOUS PROJECTS

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	AM/FM PROGRAM - 1995-98	1,500,000	250,000	500,000	500,000	250,000	
2.	COMPUTERIZED BILLING SYSTEM	1,000,000		1,000,000			
	TOTALS	2,500,000	250,000	1,500,000	500,000	250,000	0

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THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
SEWER PROJECTS

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDIRURES 1995	1996	1997	1998	1999
1.	ANNUAL SEWER CONTRACT	1,500,000		375,000	750,000	375,000	
2.	ANNUAL MANHOLE & CATCH BASIN CONTRACT	1,500,000		375,000	750,000	375,000	
3.	EMERGENCY CONTRACTS	1,500,000	200,000	500,000	500,000	300,000	
4.	TOOLS & EQUIPMENT	750,000	50,000	250,000	250,000	200,000	
5.	SEWERAGE PUMP STATION IMPROVEMENTS	500,000		500,000			
6.	CSO - ENGINEERING	1,500,000	200,000	400,000	400,000	400,000	100,000
7.	CSO IMPLEMENTATION						
	1995-98 FLOATABLES CONTROL	1,000,000			300,000	400,000	300,000
8.	McNEILY ROAD	400,000	200,000	200,000			
9.	DAWN AVENUE	300,000	300,000				
10.	MADDOCK PLACE	75,000	75,000				
11.	STREETS RUN/LINCLON PLACE	350,000		350,000			
12.	CALIFORNIA AVENUE	1,200,000			600,000	600,000	
13.	SEWER LINING - 1996-98	1,000,000			500,000	500,000	
	ORANMORE						
	BIGLOW BLVD						
14.	SEWER LINING - 1998-01						
15.	MERCHANT STREET	2,000,000			1,000,000	1,000,000	
16.	CARNEGIE MELLON	2,000,000				1,500,000	500,000
17.	SOUTH 11TH STREET	150,000		150,000			
18.	STRACHEN STREET	250,000	125,000	125,000			
19.	ELLSWORTH/MOREWOOD	750,000		500,000	250,000		
20.	DINWIDDIE STREET	750,000		500,000	250,000		
21.	VERNER AVENUE	50,000	50,000				
22.	SEWER CLEANING & TV INSPECTION	300,000	50,000	100,000	100,000	50,000	
23.	UNSEWERED AREAS	800,000	200,000	400,000	200,000		
	KEMPER WAY						
	LEBANON/BALDWIN						
	NEW YORK/SYRACUSE						
	DUNSTER						
	TOTALS	18,625,000	1,450,000	4,725,000	5,850,000	5,700,000	900,000

CHESTER ENVIRONMENTAL

THE PITTSBURGH WATER AND SEWER AUTHORITY
PROPOSED CAPITAL IMPROVEMENT PROGRAM
PROJECTION OF EXPENDITURES - PHASE I
CITY AND URA PROJECTS

MARCH 1, 1995

	DESCRIPTION	ESTIMATED COST	PROJECTION OF EXPENDITURES 1995	1996	1997	1998	1999
1.	FIFTH AVE/ROSS - PHASE II	1,325,000		480,000	650,000	195,000	
2.	WOOD STREET	750,000				350,000	400,000
3.	FT. DUQUESNE BLVD	342,000			342,000		
4.	WALBRIDGE	685,000			228,000	457,000	
5.	SUFFOLK/COLEMAN/PENELOPE	473,000				473,000	
6.	SOUTH 30TH STREET	50,000			50,000		
7.	FT. PITT BLVD	380,000			380,000		
8.	GREENFIELD AVE. BRIDGE	150,000		150,000			
9.	PANTHER HOLLOW BRIDGE	130,000		130,000			
10.	MEADOW STREET BRIDGE	10,000		10,000			
11.	VOSCAMP - SLIDE REPAIR	300,000	300,000				
12.	STATION SQUARE ROAD	550,000				550,000	
13.	CRAWFORD SQUARE PHASE 3	500,000			500,000		
14.	SOUTH SIDE RIVERFRONT HOUSING PHASE 1	900,000		300,000	300,000	300,000	
15.	SOUTH SIDE INDUSTRIAL REDEVELOPMENT PHASE 1	1,000,000		200,000	250,000	250,000	300,000
16.	NORTH SHORE PROJECT	500,000			500,000		
17.	NINE MILE RUN REDEVELOPMENT PHASE 1	1,000,000			250,000	500,000	250,000
	TOTALS	9,045,000	300,000	1,270,000	3,450,000	3,075,000	950,000

CHESTER ENVIRONMENTAL

EXHIBIT B

WATER SALES FORECAST

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THE PITTSBURGH WATER AND SEWER AUTHORITY
WATER SALES FORECAST

MONTH	1994	1995	1996	1997	1998	1999
JAN	1,483,860	1,624,827	1,785,685	1,962,467	1,962,467	2,066,476
FEB	4,861,960	5,323,846	5,850,907	6,430,147	6,770,945	7,068,866
MAR	5,756,550	6,303,422	6,927,461	7,613,280	8,016,784	8,369,522
APR	3,138,180	3,436,307	3,776,502	4,150,375	4,370,345	4,562,640
MAY	5,242,030	5,740,023	6,308,285	6,932,805	7,300,244	7,621,455
JUN	3,845,900	4,211,261	4,628,175	5,086,365	5,355,942	5,591,603
JUL	3,064,650	3,355,792	3,688,015	4,053,129	4,267,944	4,455,734
AUG	5,816,400	6,368,958	6,999,485	7,692,434	8,100,133	8,456,539
SEP	3,801,280	4,162,402	4,574,479	5,027,353	5,293,803	5,526,730
OCT	4,141,300	4,534,724	4,983,661	5,477,044	5,767,327	6,021,089
NOV	4,066,070	4,468,611	4,911,003	5,397,193	5,683,244	5,933,307
DEC	3,233,230	3,553,320	3,905,098	3,905,098	4,112,069	4,293,000
	48,451,410	53,083,491	58,338,757	63,727,689	67,001,246	69,966,963
UNCOLL @ 7%	3,391,599	3,715,844	4,083,713	4,460,938	4,690,087	4,897,687
SUB-TOTAL	45,059,811	49,367,647	54,255,044	59,266,751	62,311,158	65,069,275
COLL OF DILQ	3,822,514	5,000,000	2,000,000	2,000,000	2,000,000	2,000,000
PAWC	3,109,000	3,350,000	3,370,000	1,980,000	2,100,000	2,180,000
FOX CHAPEL	0	0	200,000	860,000	920,000	975,000
SHALER	0	0	0	350,000	1,400,000	1,500,000
MISC	156,000	165,000	175,000	175,000	175,000	175,000
TOTAL	52,147,325	57,882,647	60,000,044	64,631,751	68,906,158	71,899,275

BASED ON FOLLOWING RATE INCREASES

9.5% AS OF SEPTEMBER 27, 1994	APPROVED BY RESOLUTION NO. 70 OF 1994 ON SEPTEMBER 23, 1994
9.9% AS OF OCTOBER 1, 1995	APPROVED BY RESOLUTION NO. 74 OF 1995 ON JUNE 9, 1995
9.9% AS OF OCTOBER 1, 1996	APPROVED BY RESOLUTION NO. 74 OF 1995 ON JUNE 9, 1995
5.3% AS OF JANUARY 1, 1998	
4.4% AS OF JANUARY 1, 1999	

BASED ON FOLLOWING SALES TO OTHER COMMUNITIES

SALE TO PAWC
4.0 MGD THRU SEP. 30, 1996
2.0 MGD AFTER OCT. 1, 1996
SALE TO FOX CHAPEL STARTS OCT. 1, 1996
AT A RATE OF 1,750,000 GALLONS PER DAY
SALE TO SHALER STARTS OCT. 1, 1997
AT A RATE OF 3,000,000 GALLONS PER DAY

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EXHIBIT C

EARNED INTEREST
CONSTRUCTION FUNDS

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INTEREST EARNED

CONSTRUCTION FUNDS

I. EXISTING CONSTRUCTION FUND

BAL. AS OF JAN 1. 1995	9.172.000	
EST. DRAWDOWN IN 1995	4.000.000	
BAL. AS OF JAN 1. 1996	5.172.000	
EST. DRAWDOWN IN 1996	5.172.000	
BAL. AS OF JAN 1. 1997	0	
		INTEREST EARN. AT 4%
AVG. BALANCE IN 1995	7.172.000	286.880
AVG. BALANCE IN 1996	2.586.000	103.440

II. PRIOR CONSTRUCTION FUND

BAL. AS OF JAN 1. 1995	23.048.000	
EST. DRAWDOWN IN 1995	15.000.000	
BAL. AS OF JAN 1. 1996	8.048.000	
EST. DRAWDOWN IN 1996	8.048.000	
BAL. AS OF JAN 1. 1997	0	
		INTEREST EARN. AT 4%
AVG. BALANCE IN 1995	15.548.000	621.920
AVG. BALANCE IN 1996	4.024.000	160.960

III. 1995A CONSTRUCTION FUND

BASED ON FULL FUNDING OF CONSTRUCTION FUND ($80.000.000) AND TRANSFER OF EARNED INTEREST TO DEBT SER. FUND ANNUALY INTEREST AT 5.6196%

. SEE ATTACHED

YEAR	INTEREST EARN. AT 5.6196%
1995	1.837.813
1996	3.752.057
1997	2.399.570
1998	1.041.743
1999	173.269

CHESTER ENVIRONMENTAL

THE PITTSBURGH WATER AND SEWER AUTHORITY
INTEREST INCOME FROM 1995 A CONSTRUCTION FUND

DATE	BEGINNING BALANCE	DRAW	INVESTMENT RATE	INVESTMENT EARNINGS	ENDING BALANCE	ANNUAL DRAW	ANNUAL EARNINGS
01-JUL-95	80,000,000.00	0.00	5.6196%		80,000,000.00		
01-JUL-95	80,000,000.00	750,000.00	5.6196%	0.00	79,250,000.00		
01-AUG-95	79,250,000.00	750,000.00	5.6196%	371,127.75	78,871,127.75		
01-SEP-95	78,871,127.75	750,000.00	5.6196%	369,353.49	78,490,481.24		
01-OCT-95	78,490,481.24	750,000.00	5.6196%	367,570.92	78,108,052.16		
01-NOV-95	78,108,052.16	750,000.00	5.6196%	365,780.01	77,723,832.17		
01-DEC-95	77,723,832.17	750,000.00	5.6196%	363,980.71	75,500,000.00	4,500,000.00	1,837,812.88
01-JAN-96	75,500,000.00	1,916,666.67	5.6196%	353,566.50	73,936,899.83		
01-FEB-96	73,936,899.83	1,916,666.67	5.6196%	346,246.50	72,366,479.66		
01-MAR-96	72,366,479.66	1,916,666.67	5.6196%	338,892.22	70,788,705.22		
01-APR-96	70,788,705.22	1,916,666.67	5.6196%	331,503.51	69,203,542.05		
01-MAY-96	69,203,542.05	1,916,666.67	5.6196%	324,080.19	67,610,955.57		
01-JUN-96	67,610,955.57	1,916,666.67	5.6196%	316,622.10	66,010,911.01		
01-JUL-96	66,010,911.01	1,916,666.67	5.6196%	309,129.10	64,403,373.43		
01-AUG-96	64,403,373.43	1,916,666.67	5.6196%	301,601.00	62,788,307.76		
01-SEP-96	62,788,307.76	1,916,666.67	5.6196%	294,037.65	61,165,678.73		
01-OCT-96	61,165,678.73	1,916,666.67	5.6196%	286,438.87	59,535,450.94		
01-NOV-96	59,535,450.94	1,916,666.67	5.6196%	278,804.52	57,897,588.78		
01-DEC-96	57,897,588.78	1,916,666.63	5.6196%	271,134.41	52,500,000.00	23,000,000.00	3,752,056.56
01-JAN-97	52,500,000.00	2,000,000.00	5.6196%	245,857.50	50,745,857.50		
01-FEB-97	50,745,857.50	2,000,000.00	5.6196%	237,642.85	48,983,500.35		
01-MAR-97	48,983,500.35	2,000,000.00	5.6196%	229,389.73	47,212,890.08		
01-APR-97	47,212,890.08	2,000,000.00	5.6196%	221,097.96	45,433,988.05		
01-MAY-97	45,433,988.05	2,000,000.00	5.6196%	212,767.37	43,646,755.41		
01-JUN-97	43,646,755.41	2,000,000.00	5.6196%	204,397.76	41,851,153.17		
01-JUL-97	41,851,153.17	2,000,000.00	5.6196%	195,988.95	40,047,142.12		
01-AUG-97	40,047,142.12	2,000,000.00	5.6196%	187,540.77	38,234,682.89		
01-SEP-97	38,234,682.89	2,000,000.00	5.6196%	179,053.02	36,413,735.91		
01-OCT-97	36,413,735.91	2,000,000.00	5.6196%	170,525.53	34,584,261.43		
01-NOV-97	34,584,261.43	2,000,000.00	5.6196%	161,958.10	32,746,219.53		
01-DEC-97	32,746,219.53	2,000,000.00	5.6196%	153,350.55	28,500,000.00	24,000,000.00	2,399,570.07
01-JAN-98	28,500,000.00	1,916,666.67	5.6196%	133,465.50	26,716,798.83		
01-FEB-98	26,716,798.83	1,916,666.67	5.6196%	125,114.77	24,925,246.93		
01-MAR-98	24,925,246.93	1,916,666.67	5.6196%	116,724.93	23,125,305.19		
01-APR-98	23,125,305.19	1,916,666.67	5.6196%	108,295.80	21,316,934.32		
01-MAY-98	21,316,934.32	1,916,666.67	5.6196%	99,827.20	19,500,094.86		
01-JUN-98	19,500,094.86	1,916,666.67	5.6196%	91,318.94	17,674,747.13		
01-JUL-98	17,674,747.13	1,916,666.67	5.6196%	82,770.84	15,840,851.30		
01-AUG-98	15,840,851.30	1,916,666.67	5.6196%	74,182.71	13,998,367.34		
01-SEP-98	13,998,367.34	1,916,666.67	5.6196%	65,554.35	12,147,255.02		
01-OCT-98	12,147,255.02	1,916,666.67	5.6196%	56,885.60	10,287,473.95		
01-NOV-98	10,287,473.95	1,916,666.67	5.6196%	48,176.24	8,418,983.52		
01-DEC-98	8,418,983.52	1,916,666.63	5.6196%	39,426.10	5,500,000.00	23,000,000.00	1,041,742.99

CHESTER ENVIRONMENTAL

01-JAN-99	5,500,000.00	458,333.33	5.6196%	25,756.50	5,067,423.17		
01-FEB-99	5,067,423.17	458,333.33	5.6196%	23,730.74	4,632,820.58		
01-MAR-99	4,632,820.58	458,333.33	5.6196%	21,695.50	4,196,182.75		
01-APR-99	4,196,182.75	458,333.33	5.6196%	19,650.72	3,757,500.15		
01-MAY-99	3,757,500.15	458,333.33	5.6196%	17,596.37	3,316,763.19		
01-JUN-99	3,316,763.19	458,333.33	5.6196%	15,532.40	2,873,962.26		
01-JUL-99	2,873,962.26	458,333.33	5.6196%	13,458.77	2,429,087.70		
01-AUG-99	2,429,087.70	458,333.33	5.6196%	11,375.42	1,982,129.78		
01-SEP-99	1,982,129.78	458,333.33	5.6196%	9,282.31	1,533,078.77		
01-OCT-99	1,533,078.77	458,333.33	5.6196%	7,179.41	1,081,924.85		
01-NOV-99	1,081,924.85	458,333.33	5.6196%	5,066.65	628,658.17		
01-DEC-99	628,658.17	458,333.37	5.6196%	2,944.01	(0.00)	5,500,000.00	173,268.81
		80,000,000.00		9,204,451.31		80,000,000.00	9,204,451.31
TOTAL							

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EXHIBIT D

EARNED INTEREST
DEBT SERVICE FUNDS

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INTEREST EARNED
ON
1995 DEBT SERVICE FUNDS
AND
FORWARD FLOAT AGREEMENT

I. 1995 DEBT SERVICE FUNDS
BASED ON FULL FUNDING OF CONSTRUCTION FUND ($80,000,000)

INTEREST AT 5.25%

SEE ATTACHED

YEAR	INTEREST EARN. 1995A	INTEREST EARN. 1995B	TOTAL
1995	22.258	29.499	51.757
1996	82.674	154.227	236.901
1997	77.926	158.214	236.140
1998	120.530	154.795	275.325
1999	111.865	141.362	253.227

II. FORWARD FLOAT AGREEMENT

SEE ATTACHED

YEAR	
1995	178.758
1996	229.548
1997	243.913
1998	273.552
1999	277.113

THE PITTSBURGH WATER AND SEWER AUTHORITY
INTEREST INCOME FROM 1995 A DEBT SERVICE FUND

DATE	INT. DEP.	PRIC. DEP.	WITHDRAWAL	INT. EARN. @ 5.25%	BALANCE	EARNED INTEREST
JUL 95	213,075.74	0.00	0.00	0.00	213,075.74	
AUG 95	399,517.08	0.00	0.00	932.21	613,525.03	
SEP 95	399,517.08	0.00	0.00	2,684.17	1,015,726.28	
OCT 95	399,517.08	0.00	0.00	4,443.80	1,419,687.16	
NOV 95	399,517.08	0.00	0.00	6,211.13	1,825,415.37	
DEC 95	399,517.08	0.00	0.00	7,986.19	2,232,918.64	22,257.50
JAN 96	399,517.08	0.00	0.00	9,769.02	2,642,204.74	
FEB 96	399,517.08	0.00	0.00	11,559.65	3,053,281.47	
MAR 96	399,517.08	0.00	3,053,281.47	13,358.11	412,875.19	
APR 96	399,517.08	0.00	0.00	1,806.33	814,198.60	
MAY 96	399,517.08	0.00	0.00	3,562.12	1,217,277.79	
JUN 96	399,517.08	0.00	0.00	5,325.59	1,622,120.46	
JUL 96	399,517.08	0.00	0.00	7,096.78	2,028,734.32	
AUG 96	399,517.08	0.00	0.00	8,875.71	2,437,127.11	
SEP 96	399,517.08	0.00	2,437,127.11	10,662.43	410,179.51	
OCT 96	399,517.08	0.00	0.00	1,794.54	811,491.13	
NOV 96	399,517.08	0.00	0.00	3,550.27	1,214,558.48	
DEC 96	399,517.08	0.00	0.00	5,313.69	1,619,389.25	82,674.23
JAN 97	399,517.08	0.00	0.00	7,084.83	2,025,991.16	
FEB 97	399,517.08	0.00	0.00	8,863.71	2,434,371.95	
MAR 97	399,517.08	0.00	2,434,371.95	10,650.38	410,167.46	
APR 97	399,517.08	0.00	0.00	1,794.48	811,479.02	
MAY 97	399,517.08	0.00	0.00	3,550.22	1,214,546.32	
JUN 97	399,517.08	0.00	0.00	5,313.64	1,619,377.04	
JUL 97	399,517.08	0.00	0.00	7,084.77	2,025,978.90	
AUG 97	399,517.08	0.00	0.00	8,863.66	2,434,359.63	
SEP 97	399,517.08	129,583.33	2,434,359.63	10,650.32	539,750.73	
OCT 97	399,517.08	129,583.33	0.00	2,361.41	1,071,212.55	
NOV 97	399,517.08	129,583.33	0.00	4,686.55	1,604,999.52	
DEC 97	399,517.08	129,583.33	0.00	7,021.87	2,141,121.80	77,925.85
JAN 98	399,517.08	129,583.33	0.00	9,367.41	2,679,589.62	
FEB 98	399,517.08	129,583.33	0.00	11,723.20	3,220,413.23	
MAR 98	399,517.08	129,583.33	2,397,102.48	14,089.31	1,366,500.47	
APR 98	399,517.08	129,583.33	0.00	5,978.44	1,901,579.32	
MAY 98	399,517.08	129,583.33	0.00	8,319.41	2,438,999.14	
JUN 98	399,517.08	129,583.33	0.00	10,670.62	2,978,770.17	
JUL 98	399,517.08	129,583.33	0.00	13,032.12	3,520,902.70	
AUG 98	399,517.08	129,583.33	0.00	15,403.95	4,065,407.06	
SEP 98	394,333.75	134,583.33	4,065,407.06	17,786.16	546,703.24	
OCT 98	394,333.75	134,583.33	0.00	2,391.83	1,078,012.14	
NOV 98	394,333.75	134,583.33	0.00	4,716.30	1,611,645.53	
DEC 98	394,333.75	134,583.33	0.00	7,050.95	2,147,613.55	120,529.69

JAN 99	394,333.75	134,583.33	0.00	0.00	2,676,530.63	
FEB 99	394,333.75	134,583.33	0.00	11,709.82	3,217,157.54	
MAR 99	394,333.75	134,583.33	2,366,002.45	14,075.06	1,394,147.23	
APR 99	394,333.75	134,583.33	0.00	6,099.39	1,929,163.70	
MAY 99	394,333.75	134,583.33	0.00	8,440.09	2,466,520.88	
JUN 99	394,333.75	134,583.33	0.00	10,791.03	3,006,228.98	
JUL 99	394,333.75	134,583.33	0.00	13,152.25	3,548,298.32	
AUG 99	394,333.75	134,583.33	0.00	15,523.81	4,092,739.20	
SEP 99	388,782.18	140,416.67	4,092,739.20	17,905.73	547,104.58	
OCT 99	388,782.18	140,416.67	0.00	2,393.58	1,078,697.02	
NOV 99	388,782.18	140,416.67	0.00	4,719.30	1,612,615.17	
DEC 99	388,782.18	140,416.67	0.00	7,055.19	2,148,869.21	111,865.26

THE PITTSBURGH WATER AND SEWER AUTHORITY
INTEREST INCOME FROM 1995 B DEBT SERVICE FUND

DATE	INT. DEP.	PRIC. DEP.	WITHDRAWAL	INT. EARN. @ 5.25%	BALANCE	EARNED INTEREST
JUL 95	239,658.74	0.00	0.00	0.00	239,658.74	
AUG 95	449,359.58	0.00	0.00	1,048.51	690,066.83	
SEP 95	449,359.58	169,583.33	0.00	3,019.04	1,312,028.78	
OCT 95	449,359.58	169,583.33	0.00	5,740.13	1,936,711.82	
NOV 95	449,359.58	169,583.33	0.00	8,473.11	2,564,127.84	
DEC 95	449,359.58	169,583.33	0.00	11,218.06	3,194,288.81	29,498.85
JAN 96	449,359.58	169,583.33	0.00	13,975.01	3,827,206.73	
FEB 96	449,359.58	169,583.33	0.00	16,744.03	4,462,893.67	
MAR 96	449,359.58	169,583.33	3,385,175.53	19,525.16	1,716,186.21	
APR 96	449,359.58	169,583.33	0.00	7,508.31	2,342,637.44	
MAY 96	449,359.58	169,583.33	0.00	10,249.04	2,971,829.39	
JUN 96	449,359.58	169,583.33	0.00	13,001.75	3,603,774.05	
JUL 96	449,359.58	169,583.33	0.00	15,766.51	4,238,483.47	
AUG 96	449,359.58	169,583.33	0.00	18,543.37	4,875,969.75	
SEP 96	442,567.23	214,583.33	4,875,969.75	21,332.37	678,482.93	
OCT 96	442,567.23	214,583.33	0.00	2,968.36	1,338,601.85	
NOV 96	442,567.23	214,583.33	0.00	5,856.38	2,001,608.79	
DEC 96	442,567.23	214,583.33	0.00	8,757.04	2,667,516.39	154,227.34
JAN 97	442,567.23	214,583.33	0.00	11,670.38	3,336,337.34	
FEB 97	442,567.23	214,583.33	0.00	14,596.48	4,008,084.37	
MAR 97	442,567.23	214,583.33	2,655,457.50	17,535.37	2,027,312.80	
APR 97	442,567.23	214,583.33	0.00	8,869.49	2,693,332.85	
MAY 97	442,567.23	214,583.33	0.00	11,783.33	3,362,266.75	
JUN 97	442,567.23	214,583.33	0.00	14,709.92	4,034,127.22	
JUL 97	442,567.23	214,583.33	0.00	17,649.31	4,708,927.09	
AUG 97	442,567.23	214,583.33	0.00	20,601.56	5,386,679.21	
SEP 97	433,992.92	208,750.00	5,386,679.21	23,566.72	666,309.64	
OCT 97	433,992.92	208,750.00	0.00	2,915.10	1,311,967.67	
NOV 97	433,992.92	208,750.00	0.00	5,739.86	1,960,450.44	
DEC 97	433,992.92	208,750.00	0.00	8,576.97	2,611,770.34	158,214.49
JAN 98	433,992.92	208,750.00	0.00	11,426.50	3,265,939.75	
FEB 98	433,992.92	208,750.00	0.00	14,288.49	3,922,971.16	
MAR 98	433,992.92	208,750.00	2,603,957.50	17,163.00	1,978,919.58	
APR 98	433,992.92	208,750.00	0.00	8,657.77	2,630,320.27	
MAY 98	433,992.92	208,750.00	0.00	11,507.65	3,284,570.84	
JUN 98	433,992.92	208,750.00	0.00	14,370.00	3,941,683.76	
JUL 98	433,992.92	208,750.00	0.00	17,244.87	4,601,671.54	
AUG 98	433,992.92	208,750.00	0.00	20,132.31	5,264,546.78	
SEP 98	425,642.92	207,500.00	5,264,546.78	23,032.39	656,175.31	
OCT 98	425,642.92	207,500.00	0.00	2,870.77	1,292,189.00	
NOV 98	425,642.92	207,500.00	0.00	5,653.33	1,930,985.25	
DEC 98	425,642.92	207,500.00	0.00	8,448.06	2,572,576.23	154,795.13

JAN 99	425,642.92	207,500.00	0.00	0.00	3,205,719.15	
FEB 99	425,642.92	207,500.00	0.00	14,025.02	3,852,887.09	
MAR 99	425,642.92	207,500.00	2,553,857.50	16,856.38	1,949,028.89	
APR 99	425,642.92	207,500.00	0.00	8,527.00	2,590,698.81	
MAY 99	425,642.92	207,500.00	0.00	11,334.31	3,235,176.04	
JUN 99	425,642.92	207,500.00	0.00	14,153.90	3,882,472.85	
JUL 99	425,642.92	207,500.00	0.00	16,985.82	4,532,601.59	
AUG 99	425,642.92	207,500.00	0.00	19,830.13	5,185,574.64	
SEP 99	417,135.42	215,833.33	5,185,574.64	22,686.89	655,655.64	
OCT 99	417,135.42	215,833.33	0.00	2,868.49	1,291,492.88	
NOV 99	417,135.42	215,833.33	0.00	5,650.28	1,930,111.91	
DEC 99	417,135.42	215,833.33	0.00	8,444.24	2,571,524.90	141,362.46

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EXHIBIT E

EARNED INTEREST
DEBT SERVICE RESERVE FUNDS

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INTEREST EARNED

DEBT SERVICE RESERVE FUNDS

I. SERIES A (CAPITAL IMPTOVEMENTS)
BASED ON FULL FUNDING OF CONSTRUCTION FUND ($80,000,000)
DEPOSIT INTO DSRF OF $6,352,000.00
INTEREST AT 5.62%

SEE ATTACHED (SCHEDULE 9)

YEAR	INTEREST EARN.
1995	0
1996	390,670
1997	356,957
1998	356,957
1999	356,957

II. SERIES B (CAPITAL LEASE)
DEPOSIT INTO DSRF OF $8,282,000.00
INTEREST AT 5.6196%

SEE ATTACHED (SCHEDULE 7)

YEAR	INTEREST EARN.
1995	0
1996	509,371
1997	465,415
1998	465,415
1999	465,415

GRANT STREET ADVISORS 07/13/95

The Pittsburgh Water and Sewer Authority
Water and Sewer System Revenue Bonds Schedule 5

Estimated Sources and Uses of Funds - $80,000,000 to Gross Fund Construction Fund

	Series A First Lien Revenue Bonds	Series B Subordinate Revenue Bonds	Total
Sources of Funds:			
Principal	89,850,000.00	103,020,000.00	192,870,000.00
Less: Original Issue Discount	(1,256,657.70)	(1,052,444.70)	(2,309,102.40)
Plus: Original Issue Premium	0.00	18,784.70	18,784.70
Less: Allowance for Underwriter's Discount	(539,100.00)	(841,673.40)	(1,380,773.40)
Net Bond Proceeds	88,054,242.30	101,144,666.60	189,198,908.90
Accrued Interest	159,806.83	179,743.83	339,550.67
Total	88,214,049.13	101,324,410.43	189,538,459.57
Uses of Funds:			
Deposit to City Acquisition Fund	0.00	92,862,666.60	92,862,666.60
Deposit to PWSA Construction Fund	80,000,000.00	0.00	80,000,000.00
Deposit to Debt Service Reserve Fund	6,352,000.00	8,282,000.00	14,634,000.00
Deposit to Debt Service Fund (Accrued Interest)	159,806.83	179,743.83	339,550.67
Costs of Issuance	1,700,139.48	0.00	1,700,139.48
Rounding	2,102.82	0.00	2,102.82
Total	88,214,049.13	101,324,410.43	189,538,459.57
Debt Service Reserve Fund:			
Maximum Annual Debt Service	6,352,000.00	8,282,000.00	14,634,000.00

The Pittsburgh Water and Sewer Authority
Water and Sewer System Revenue Bonds Schedule 7

Debt Service Schedule - 1995 Lease Bonds (Series B)

Date	City Financing Charge	Additional Payment	"Net Debt Service Budget"	Principal	Price	Proceeds	Coupon	Yield	Interest	Semiannual Debt Service	Gross Annual Debt Service	DSRF Credit 5.6196%	Net Annual Debt Service
07/27/95													
09/01/95													
03/01/96									3,385,175.53	3,385,175.53			
09/01/96	2,609,000	5,000,000	7,609,000	2,035,000	1.00422	2,043,588	4.000%	3.600%	2,696,157.50	4,731,157.50	8,116,333.03	(309,371.29)	7,606,961.74
03/01/97									2,655,457.50	2,655,457.50			
09/01/97	2,421,000	5,000,000	7,421,000	2,575,000	1.00396	2,585,197	4.000%	3.800%	2,655,457.50	5,230,457.50	7,885,915.00	(465,415.39)	7,420,499.61
03/01/98									2,603,957.50	2,603,957.50			
09/01/98	2,247,000	5,000,000	7,247,000	2,505,000	1.00000	2,505,000	4.000%	4.000%	2,603,957.50	5,108,957.50	7,712,915.00	(465,415.39)	7,247,499.61
03/01/99									2,553,857.50	2,553,857.50			
09/01/99	2,130,000	5,000,000	7,130,000	2,490,000	0.99810	2,485,269	4.100%	4.150%	2,553,857.50	5,043,857.50	7,597,715.00	(465,415.39)	7,132,299.61
03/01/00									2,502,812.50	2,502,812.50			
09/01/00	2,129,000	5,000,000	7,129,000	2,590,000	0.99769	2,584,017	4.250%	4.300%	2,502,812.50	5,092,812.50	7,595,625.00	(465,415.39)	7,130,209.61
03/01/01									2,447,775.00	2,447,775.00			
09/01/01	2,560,000	5,000,000	7,560,000	3,130,000	0.99863	3,125,712	4.375%	4.400%	2,447,775.00	5,577,775.00	8,025,550.00	(465,415.39)	7,560,134.61
03/01/02									2,379,306.25	2,379,306.25			
09/01/02	2,781,000	5,000,000	7,781,000	3,490,000	1.00000	3,490,000	4.500%	4.500%	2,379,306.25	5,869,306.25	8,248,612.50	(465,415.39)	7,783,197.11
03/01/03									2,300,781.25	2,300,781.25			
09/01/03	2,788,000	5,000,000	7,788,000	3,650,000	1.00000	3,650,000	4.600%	4.600%	2,300,781.25	5,950,781.25	8,251,562.50	(465,415.39)	7,786,147.11
03/01/04									2,216,831.25	2,216,831.25			
09/01/04	2,798,000	5,000,000	7,798,000	3,830,000	1.00000	3,830,000	4.700%	4.700%	2,216,831.25	6,046,831.25	8,263,662.50	(465,415.39)	7,798,247.11
03/01/05									2,126,826.25	2,126,826.25			
09/01/05	2,813,000	5,000,000	7,813,000	4,025,000	0.99600	4,008,900	4.800%	4.850%	2,126,826.25	6,151,826.25	8,278,652.50	(465,415.39)	7,813,237.11
03/01/06									2,030,226.25	2,030,226.25			
09/01/06	2,819,000	5,000,000	7,819,000	4,225,000	1.00000	4,225,000	5.000%	5.000%	2,030,226.25	6,255,226.25	8,285,452.50	(465,415.39)	7,820,037.11
03/01/07									1,924,601.25	1,924,601.25			
09/01/07	2,362,000	5,000,000	7,362,000	3,980,000	0.99549	3,962,050	5.100%	5.150%	1,924,601.25	5,904,601.25	7,829,202.50	(465,415.39)	7,363,787.11
03/01/08									1,823,111.25	1,823,111.25			
09/01/08	983,000	5,000,000	5,983,000	2,800,000	0.99059	2,773,652	5.200%	5.300%	1,823,111.25	4,623,111.25	6,446,222.50	(465,415.39)	5,980,807.11
03/01/09									1,750,311.25	1,750,311.25			
09/01/09		5,000,000	5,000,000	1,965,000	0.99016	1,945,664	5.300%	5.400%	1,750,311.25	3,715,311.25	5,465,622.50	(465,415.39)	5,000,207.11
03/01/10									1,698,238.75	1,698,238.75			
09/01/10		5,000,000	5,000,000	2,070,000	0.98977	2,048,824	5.400%	5.500%	1,698,238.75	3,768,238.75	5,466,477.50	(465,415.39)	5,001,062.11
03/01/11									1,642,348.75	1,642,348.75			
09/01/11		5,000,000	5,000,000	2,180,000	0.98942	2,156,936	5.500%	5.600%	1,642,348.75	3,822,348.75	5,464,697.50	(465,415.39)	4,999,282.11
03/01/12									1,582,398.75	1,582,398.75			
09/01/12		5,000,000	5,000,000	2,300,000	0.98363	2,262,349	5.500%	5.650%	1,582,398.75	3,882,398.75	5,464,797.50	(465,415.39)	4,999,382.11
03/01/13									1,519,148.75	1,519,148.75			
09/01/13		5,000,000	5,000,000	2,425,000	0.98874	2,397,695	5.600%	5.700%	1,519,148.75	3,944,148.75	5,463,297.50	(465,415.39)	4,997,882.11
03/01/14									1,451,248.75	1,451,248.75			
09/01/14		5,000,000	5,000,000	2,565,000	0.98268	2,520,574	5.600%	5.750%	1,451,248.75	4,016,248.75	5,467,497.50	(465,415.39)	5,002,082.11
03/01/15									1,379,428.75	1,379,428.75			
09/01/15		5,000,000	5,000,000	2,705,000	0.98220	2,656,851	5.600%	5.750%	1,379,428.75	4,084,428.75	5,463,857.50	(465,415.39)	4,998,442.11
03/01/16									1,303,688.75	1,303,688.75			
09/01/16		5,000,000	5,000,000	2,860,000	0.98500	2,817,100	5.700%	5.823%	1,303,688.75	4,163,688.75	5,467,377.50	(465,415.39)	5,001,962.11
03/01/17									1,222,178.75	1,222,178.75			
09/01/17		5,000,000	5,000,000	3,020,000	0.98500	2,974,700	5.700%	5.821%	1,222,178.75	4,242,178.75	5,464,357.50	(465,415.39)	4,998,942.11
03/01/18									1,136,108.75	1,136,108.75			
09/01/18		5,000,000	5,000,000	3,195,000	0.98500	3,147,075	5.700%	5.818%	1,136,108.75	4,331,108.75	5,467,217.50	(465,415.39)	5,001,802.11
03/01/19									1,045,051.25	1,045,051.25			
09/01/19		5,000,000	5,000,000	3,375,000	0.98500	3,324,375	5.700%	5.816%	1,045,051.25	4,420,051.25	5,465,102.50	(465,415.39)	4,999,687.11
03/01/20									948,863.75	948,863.75			
09/01/20		5,000,000	5,000,000	3,570,000	0.98500	3,516,450	5.700%	5.813%	948,863.75	4,518,863.75	5,467,727.50	(465,415.39)	5,002,312.11
03/01/21									847,118.75	847,118.75			
09/01/21		5,000,000	5,000,000	3,770,000	0.98250	3,704,025	5.750%	5.881%	847,118.75	4,617,118.75	5,464,237.50	(465,415.39)	4,998,822.11
03/01/22									738,731.25	738,731.25			
09/01/22		5,000,000	5,000,000	3,990,000	0.98250	3,920,175	5.750%	5.879%	738,731.25	4,728,731.25	5,467,462.50	(465,415.39)	5,002,047.11
03/01/23									624,018.75	624,018.75			
09/01/23		5,000,000	5,000,000	4,215,000	0.98250	4,141,238	5.750%	5.877%	624,018.75	4,839,018.75	5,463,037.50	(465,415.39)	4,997,622.11
03/01/24									502,837.50	502,837.50			
09/01/24		5,000,000	5,000,000	4,460,000	0.98250	4,381,950	5.750%	5.875%	502,837.50	4,962,837.50	5,465,675.00	(465,415.39)	5,000,259.61
03/01/25									374,612.50	374,612.50			
09/01/25		5,000,000	5,000,000	13,030,000	0.98250	12,801,975	5.750%	5.874%	374,612.50	13,404,612.50	13,779,225.00	(8,780,415.39)	4,998,809.61
Total	31,440,000	150,000,000	181,440,000	103,020,000		101,986,340			100,745,088.03	203,765,088.03	203,765,088.03	(22,321,417.53)	181,443,670.50
									Less: Accrued Interest	(179,743.83)			
									Net Semiannual DS	203,585,344.19			

The Pittsburgh Water and Sewer Authority
Water and Sewer System Revenue Bonds Schedule 9

Debt Service Schedule - 1995 Capital Improvement Bonds (Series A)

Date	Principal	Price	Proceeds	Coupon	Yield	Interest	Semiannual Debt Service	Gross Annual Debt Service	DSRF Earnings 5.620%	Net Annual Debt Service
07/27/95										
09/01/95										
03/01/96						3,009,695.36	3,009,695.36			
09/01/96						2,397,102.50	2,397,102.50	5,406,797.86	(390,669.69)	5,016,128.17
03/01/97						2,397,102.50	2,397,102.50			
09/01/97						2,397,102.50	2,397,102.50	4,794,205.00	(356,957.08)	4,437,247.92
03/01/98						2,397,102.50	2,397,102.50			
09/01/98	1,555,000	1.00000	1,555,000	4.000%	4.000%	2,397,102.50	3,952,102.50	6,349,205.00	(356,957.08)	5,992,247.92
03/01/99						2,366,002.50	2,366,002.50			
09/01/99	1,615,000	0.99903	1,613,433	4.125%	4.150%	2,366,002.50	3,981,002.50	6,347,005.00	(356,957.08)	5,990,047.92
03/01/00						2,332,693.13	2,332,693.13			
09/01/00	1,685,000	0.99769	1,681,108	4.250%	4.300%	2,332,693.13	4,017,693.13	6,350,386.25	(356,957.08)	5,993,429.17
03/01/01						2,296,886.88	2,296,886.88			
09/01/01	1,755,000	0.99863	1,752,596	4.375%	4.400%	2,296,886.88	4,051,886.88	6,348,773.75	(356,957.08)	5,991,816.67
03/01/02						2,258,496.25	2,258,496.25			
09/01/02	1,830,000	0.99394	1,818,910	4.400%	4.500%	2,258,496.25	4,088,496.25	6,346,992.50	(356,957.08)	5,990,035.42
03/01/03						2,218,236.25	2,218,236.25			
09/01/03	1,915,000	0.99326	1,902,093	4.500%	4.600%	2,218,236.25	4,133,236.25	6,351,472.50	(356,957.08)	5,994,515.42
03/01/04						2,175,148.75	2,175,148.75			
09/01/04	2,000,000	0.99445	1,988,900	4.625%	4.700%	2,175,148.75	4,175,148.75	6,350,297.50	(356,957.08)	5,993,340.42
03/01/05						2,128,898.75	2,128,898.75			
09/01/05	2,090,000	0.99600	2,081,640	4.800%	4.850%	2,128,898.75	4,218,898.75	6,347,797.50	(356,957.08)	5,990,840.42
03/01/06						2,078,738.75	2,078,738.75			
09/01/06	2,190,000	1.00000	2,190,000	5.000%	5.000%	2,078,738.75	4,268,738.75	6,347,477.50	(356,957.08)	5,990,520.42
03/01/07						2,023,988.75	2,023,988.75			
09/01/07	2,300,000	0.99100	2,279,300	5.000%	5.100%	2,023,988.75	4,323,988.75	6,347,977.50	(356,957.08)	5,991,020.42
03/01/08						1,966,488.75	1,966,488.75			
09/01/08	2,415,000	1.00000	2,415,000	5.200%	5.200%	1,966,488.75	4,381,488.75	6,347,977.50	(356,957.08)	5,991,020.42
03/01/09						1,903,698.75	1,903,698.75			
09/01/09	2,540,000	1.00000	2,540,000	5.300%	5.300%	1,903,698.75	4,443,698.75	6,347,397.50	(356,957.08)	5,990,440.42
03/01/10						1,836,388.75	1,836,388.75			
09/01/10	2,675,000	0.98971	2,647,474	5.300%	5.400%	1,836,388.75	4,511,388.75	6,347,777.50	(356,957.08)	5,990,820.42
03/01/11						1,765,501.25	1,765,501.25			
09/01/11	2,820,000	0.98935	2,789,967	5.400%	5.500%	1,765,501.25	4,585,501.25	6,351,002.50	(356,957.08)	5,994,045.42
03/01/12						1,689,361.25	1,689,361.25			
09/01/12	2,970,000	0.98351	2,921,025	5.400%	5.550%	1,689,361.25	4,659,361.25	6,348,722.50	(356,957.08)	5,991,765.42
03/01/13						1,609,171.25	1,609,171.25			
09/01/13	3,130,000	0.98865	3,094,475	5.500%	5.600%	1,609,171.25	4,739,171.25	6,348,342.50	(356,957.08)	5,991,385.42
03/01/14						1,523,096.25	1,523,096.25			
09/01/14	3,305,000	0.98255	3,247,328	5.500%	5.650%	1,523,096.25	4,828,096.25	6,351,192.50	(356,957.08)	5,994,235.42
03/01/15						1,432,208.75	1,432,208.75			
09/01/15	3,485,000	0.98205	3,422,444	5.500%	5.650%	1,432,208.75	4,917,208.75	6,349,417.50	(356,957.08)	5,992,460.42
03/01/16						1,336,371.25	1,336,371.25			
09/01/16	3,675,000	0.98250	3,610,688	5.600%	5.743%	1,336,371.25	5,011,371.25	6,347,742.50	(356,957.08)	5,990,785.42
03/01/17						1,233,471.25	1,233,471.25			
09/01/17	3,885,000	0.98250	3,817,013	5.600%	5.740%	1,233,471.25	5,118,471.25	6,351,942.50	(356,957.08)	5,994,985.42
03/01/18						1,124,691.25	1,124,691.25			
09/01/18	4,100,000	0.98250	4,028,250	5.600%	5.737%	1,124,691.25	5,224,691.25	6,349,382.50	(356,957.08)	5,992,425.42
03/01/19						1,009,891.25	1,009,891.25			
09/01/19	4,330,000	0.98000	4,243,400	5.600%	5.753%	1,009,891.25	5,339,891.25	6,349,782.50	(356,957.08)	5,992,825.42
03/01/20						888,651.25	888,651.25			
09/01/20	4,570,000	0.98000	4,478,600	5.600%	5.751%	888,651.25	5,458,651.25	6,347,302.50	(356,957.08)	5,990,345.42
03/01/21						760,691.25	760,691.25			
09/01/21	4,830,000	0.98000	4,733,400	5.600%	5.748%	760,691.25	5,590,691.25	6,351,382.50	(356,957.08)	5,994,425.42
03/01/22						625,451.25	625,451.25			
09/01/22	5,100,000	0.98000	4,998,000	5.600%	5.746%	625,451.25	5,725,451.25	6,350,902.50	(356,957.08)	5,993,945.42
03/01/23						482,651.25	482,651.25			
09/01/23	5,385,000	0.98000	5,277,300	5.650%	5.794%	482,651.25	5,867,651.25	6,350,302.50	(356,957.08)	5,993,345.42
03/01/24						330,525.00	330,525.00			
09/01/24	5,690,000	0.98000	5,576,200	5.650%	5.792%	330,525.00	6,020,525.00	6,351,050.00	(356,957.08)	5,994,092.92
03/01/25						169,782.50	169,782.50			
09/01/25	6,010,000	0.98000	5,889,800	5.650%	5.790%	169,782.50	6,179,782.50	6,349,565.00	(356,957.08)	5,992,607.92
Total	89,850,000		88,593,342			98,129,572.86	187,979,572.86	187,979,572.86	(10,742,425.03)	177,237,147.83
						(159,806.83)				

EXHIBIT F

EARNED INTEREST
OTHER FUNDS

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INTEREST EARNED ON OTHER FUNDS

I. REVENUE FUND
ASSUME AVERAGE BALANCE OF $ 5,000,000
AT AN INTEREST RATE OF 4%

INTEREST INCOME FROM REVENUE FUND = $200,000/YEAR

II. OPERATING RESERVE ACCOUNT
ASSUME AVERAGE BALANCE OF $ 3,400,000
AT AN INTEREST RATE OF 4%

INTEREST INCOME FROM OPER. RES. ACC'T = $136,000/YEAR

III. OPERATION & MAINTENANCE FUND
ASSUME AVERAGE BALANCE OF $ 20,000
AT AN INTEREST RATE OF 4%

INTEREST INCOME FROM O&M FUND = $ 800/YEAR

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APPENDIX E

Form of Co-Bond Counsel Opinion

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[FORM OF CO-BOND COUNSEL OPINION]

July ___, 1995

$89,850,000
THE PITTSBURGH WATER AND SEWER AUTHORITY
Water and Sewer System First Lien Revenue Bonds
Series A of 1995

$103,020,000
THE PITTSBURGH WATER AND SEWER AUTHORITY
Water and Sewer System Subordinate Revenue Bonds
Series B of 1995

To the Purchasers of the
Above-Described Bonds:

Ladies and Gentlemen:

We have acted as Co-Bond Counsel in connection with the issuance of the $89,850,000, aggregate principal amount, Water and Sewer System First Lien Revenue Bonds, Series A of 1995 (the "1995 Series A Bonds") and the $103,020,000, aggregate principal amount, Water and Sewer System Subordinate Revenue Bonds, Series B of 1995 (the "1995 Series B Bonds", and together with the 1995 Series A Bonds, the "Bonds") by The Pittsburgh Water and Sewer Authority (the "Authority"). The 1995 Series A 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, between the Authority and PNC Bank, National Association, as Trustee (collectively, the "First Lien Indenture"). The 1995 Series B Bonds will be issued under a Subordinate Trust Indenture, dated as of July 15, 1995 between the Authority and PNC Bank, National Association, as Trustee (the "Subordinate Indenture", and together with the First Lien Indenture, the "Indentures").

The 1995 Series A Bonds have been issued in order to provide funds which will be used (i) to pay for capital improvements to the Water and Sewer System, (ii) to fund a reserve fund and (iii) to pay fees and expenses incurred in connection with the issuance of the Bonds, including certain insurance premiums. The 1995 Series B Bonds have been issued in order to provide funds which will be used (i) to pay certain obligations to the City of Pittsburgh under a Capital Lease Agreement dated as of July 1, 1995 between the Authority and the City and (ii) to fund a reserve fund.

The 1995 Series A Bonds are secured by a first lien pledge and the 1995 Series B Bonds are secured by a subordinate pledge of the Receipts and Revenues of the Authority, after deduction of the proper expenses of the operation, maintenance and repair of the Water and Sewer System.

As Co-Bond Counsel, we have examined the Indentures, certified copies of all of the proceedings relating to the issuance of the Bonds, including the certification of the Authority that the Authority does not expect that the proceeds of the Bonds will be used in a manner which would cause the Bonds to be arbitrage bonds within the meaning of Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended (the "Code"), specimens of the forms of the Bonds, the Municipality Authorities Act of 1945, P.L. 382, as amended (the "Act"), the constitution of the Commonwealth, and such other public records and documents and matters of law as we deemed appropriate in order to render the opinions set forth herein.

In rendering the opinions set forth below, we have relied upon the genuineness, authenticity, truthfulness and completeness of all documents, records and other instruments examined by us. Except as set forth in paragraph 5 below, our opinions are given only with respect to the laws of the Commonwealth of Pennsylvania as enacted and construed on the date hereof. All capitalized terms used herein not otherwise defined are used with the meaning set forth in the Indentures.

Based upon and subject to the foregoing, we are of the opinion that:

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. The Authority has full legal right, power and authority to enter into the Indentures, to issue, sell and deliver the Bonds and to carry out and consummate all other transactions to be carried out and consummated by it as contemplated by the Indentures.

2. The Indentures have been executed and delivered by the Authority and constitute valid and binding limited obligations of the Authority enforceable against it in accordance with their terms.

3. The Bonds have been duly authorized, executed, issued and delivered by the Authority and constitute valid and binding obligations of the Authority enforceable in accordance with their terms and are entitled to the benefits and security of the respective Indentures.

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

5. Under existing laws, regulations, rulings and judicial decisions, and pursuant to Section 103 of the Code, interest on the Bonds (including any original issue discount properly allocable to a holder and treated as interest) is excludable from gross income for federal income tax purposes; furthermore, such interest is not an item of tax preference for purposes of the federal individual and corporate alternative minimum tax.

The interest on the Bonds is includable in the "adjusted current earnings" (*i.e.*, alternative minimum taxable income as adjusted for certain items, including those items that would be included in the calculation of a corporation's earnings and profits under Subchapter C of the Code) of certain corporations. Each such corporation is required to include 75 percent of the excess of such corporation's adjusted current earnings over its alternative minimum taxable income in the calculation of alternative minimum taxable income (determined without regard to this adjustment and prior to reduction for certain net operating losses).

The accrual or receipt of interest on the Bonds may otherwise affect the federal income tax liability of the recipient. The extent of these other tax consequences will depend upon the recipient's particular status or other items of income or deduction. We express no opinion regarding any such consequences.

The Code imposes certain requirements which must be met on a continuing basis subsequent to the issuance of the Bonds for the interest paid thereon to be excluded from gross income for federal income tax purposes. The Authority has covenanted to comply with certain requirements designed to assure that interest paid on the Bonds will not become includable in gross income. The opinions set forth herein are subject to continuing compliance by the Authority with such covenants. Moreover, failure to comply with such covenants could cause interest on the Bonds to be included in gross income retroactively to the date of issuance of such Bonds.

It is to be understood that the rights of the owners of the Bonds and the enforceability of the Bonds and the Indentures may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted and that their enforcement may also be subject to the exercise of judicial discretion in appropriate cases.

The scope of our engagement has not extended beyond the examinations and rendering of the opinions expressed herein; such opinions are based on existing law and regulations, and no opinion is expressed as of any subsequent date or with respect to any pending legislation. We have not been engaged or undertaken to review the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Bonds (except to the extent, if any, stated in the Official Statement) and we express no opinion relating thereto (excepting only the matters set forth in our opinion in the Official Statement).

Very truly yours,

DOEPKEN KEEVICAN & WEISS Professional Corporation

KUTAK ROCK

APPENDIX F

Form of Municipal Bond Insurance Policy

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1995 Series A Bonds

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EXHIBIT A

Financial Guaranty Insurance
Company
115 Broadway
New York, NY 10006
212 312-3000
800 352-0001

A GE Capital Company

FGIC.

Municipal Bond
New Issue Insurance Policy

Issuer:

Policy Number:

Control Number:

Bonds:

Premium:

SPECIMEN

Financial Guaranty Insurance Company ("Financial Guaranty"), a New York stock insurance company, in consideration of the payment of the premium and subject to the terms of this Policy, hereby unconditionally and irrevocably agrees to pay to State Street Bank and Trust Company, N.A., or its successor, as its agent (the "Fiscal Agent"), for the benefit of Bondholders, that portion of the principal and interest on the above-described debt obligations (the "Bonds") which shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

Financial Guaranty will make such payments to the Fiscal Agent on the date such principal or interest becomes Due for Payment or on the Business Day next following the day on which Financial Guaranty shall have received Notice of Nonpayment, whichever is later. The Fiscal Agent will disburse to the Bondholder the face amount of principal and interest which is then Due for Payment but is unpaid by reason of Nonpayment by the Issuer but only upon receipt by the Fiscal Agent, in form reasonably satisfactory to it, of (i) evidence of the Bondholder's right to receive payment of the principal or interest Due for Payment and (ii) evidence, including any appropriate instruments of assignment, that all of the Bondholder's rights to payment of such principal or interest Due for Payment shall thereupon vest in Financial Guaranty. Upon such disbursement, Financial Guaranty shall become the owner of the Bond, appurtenant coupon or right to payment of principal or interest on such Bond and shall be fully subrogated to all of the Bondholder's rights thereunder, including the Bondholder's right to payment thereof.

This Policy is non-cancellable for any reason. The premium on this Policy is not refundable for any reason, including the payment of the Bonds prior to their maturity. This Policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Bond.

As used herein, the term "Bondholder" means, as to a particular Bond, the person other than the Issuer who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof. "Due for Payment" means, when referring to the principal of a Bond, the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity and means, when referring to interest on a

FGIC is a registered service mark used by Financial Guaranty Insurance Company under license from its parent company, FGIC Corporation.

Financial Guaranty Insurance
Company
115 Broadway
New York, NY 10006
212 312-3000
800 352-0001

A GE Capital Company

FGIC.

Municipal Bond
New Issue Insurance Policy

Bond, the stated date for payment of interest. "Nonpayment" in respect of a Bond means the failure of the Issuer to have provided sufficient funds to the paying agent for payment in full of all principal and interest Due for Payment on such Bond. "Notice" means telephonic or telegraphic notice, subsequently confirmed in writing, or written notice by registered or certified mail, from a Bondholder or a paying agent for the Bonds to Financial Guaranty. "Business Day" means any day other than a Saturday, Sunday or a day on which the Fiscal Agent is authorized by law to remain closed.

In Witness Whereof, Financial Guaranty has caused this Policy to be affixed with its corporate seal and to be signed by its duly authorized officer in facsimile to become effective and binding upon Financial Guaranty by virtue of the countersignature of its duly authorized representative.

President

Effective Date: **Authorized Representative**

State Street Bank and Trust Company, N.A., acknowledges that it has agreed to perform the duties of Fiscal Agent under this Policy.

Authorized Officer

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115 Broadway
New York, NY 10006
212 312-3000
800 352-0001

A GE Capital Company

FGIC.

Endorsement
To Financial Guaranty Insurance Company Insurance Policy

Policy Number: **Control Number:**

It is further understood that the term "Nonpayment" in respect of a Bond includes any payment of principal or interest made to a Bondholder by or on behalf of the issuer of such Bond which has been recovered from such Bondholder pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction.

NOTHING HEREIN SHALL BE CONSTRUED TO WAIVE, ALTER, REDUCE, OR AMEND COVERAGE IN ANY OTHER SECTION OF THE POLICY. IF FOUND CONTRARY TO THE POLICY LANGUAGE, THE TERMS OF THIS ENDORSEMENT SUPERSEDE THE POLICY LANGUAGE.

In Witness Whereof, Financial Guaranty has caused this Endorsement to be affixed with its corporate seal and to be signed by its duly authorized officer in facsimile to become effective and binding upon Financial Guaranty by virtue of the countersignature of its duly authorized representative.

President

Effective Date: **Authorized Representative**

Acknowledged as of the Effective Date written above:

Authorized Officer
State Street Bank and Trust Company, N.A., as Fiscal Agent

SPECIMEN

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1995 Series B Bonds

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FINANCIAL SECURITY ASSURANCE

MUNICIPAL BOND INSURANCE POLICY

ISSUER:

BONDS:

Policy No.:

Effective Date:

Premium:

SPECIMEN

FINANCIAL SECURITY ASSURANCE INC. ("Financial Security"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the Trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of Financial Security, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which Financial Security shall have received Notice of Nonpayment, Financial Security will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by Financial Security, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in Financial Security. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by Financial Security is incomplete, it shall be deemed not to have been received by Financial Security for purposes of the preceding sentence and Financial Security shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, Financial Security shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by Financial Security hereunder. Payment by Financial Security to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of Financial Security under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless Financial Security shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest.

Policy No.

"Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to Financial Security which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

Financial Security may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to Financial Security pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to Financial Security and shall not be deemed received until received by both and (b) all payments required to be made by Financial Security under this Policy may be made directly by Financial Security or by the Insurer's Fiscal Agent on behalf of Financial Security. The Insurer's Fiscal Agent is the agent of Financial Security only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of Financial Security to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, Financial Security agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to Financial Security to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of Financial Security, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be cancelled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, FINANCIAL SECURITY ASSURANCE INC. has caused this Policy to be executed on its behalf by its Authorized Officer.

FINANCIAL SECURITY ASSURANCE INC.

By_____
Authorized Officer

SPECIMEN

A subsidiary of Financial Security Assurance Holdings Ltd.
350 Park Avenue, New York, N.Y. 10022-6022
(212) 826-0100