

## NEW ISSUE – BOOK-ENTRY ONLY

*In the opinion of Bond Counsel, under existing law and assuming compliance with the tax covenant described herein, the interest on the Bonds is excluded from gross income for federal income tax purposes and is not a specific preference item for purposes of the federal alternative minimum tax. Interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax and the Bonds are exempt from personal property taxes in Pennsylvania. See "TAX EXEMPTION" herein.*

**[City Crest] The City of Philadelphia, Pennsylvania**  
**\$250,000,000 Water and Wastewater Revenue Bonds, Series 2001A**  
**\$35,920,000 Water and Wastewater Revenue Refunding Bonds, Series 2001B**

**Dated: November 15, 2001****Due: November 1, as shown on the inside front cover**

The City of Philadelphia, Pennsylvania Water and Wastewater Revenue Bonds, Series 2001A (the "Series 2001A Bonds") and the Water and Wastewater Revenue Refunding Bonds, Series 2001B (the "Series 2001B Bonds", and together with the Series 2001A Bonds, the "Bonds") of The City of Philadelphia, a corporation and body politic existing under the laws of the Commonwealth of Pennsylvania (the "City") are being issued pursuant to the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 (as may be amended from time to time, the "General Ordinance") for the purpose of providing funds which, together with other available funds of the Water Department, will be applied (i) to fund capital improvements to the City's Water and Wastewater Systems (as defined herein), (ii) to refund a portion of the City's Water and Wastewater Revenue Bonds, Series 1993, (iii) to fund the Debt Reserve Account of the Sinking Fund (as defined herein), (iv) to fund capitalized interest on the Series 2001A Bonds, and (v) to pay costs of issuance relating to the Bonds.

The Bonds are special obligations of the City, secured equally and ratably with (i) the City's Water and Sewer Revenue Bonds currently outstanding in the aggregate principal amount of \$77,248,996 issued under the Prior Ordinance (as defined herein) (consisting of all or portions of the City's Water and Sewer Revenue Bonds, Fourteenth Series, Fifteenth Series and Sixteenth Series) which are subject to the provisions of the General Ordinance, (ii) the City's Water and Wastewater Revenue Bonds currently outstanding in the aggregate principal amount of \$1,544,010,000 issued under the General Ordinance (as defined herein) (consisting of all or portions of the City's Water and Wastewater Revenue Bonds, Series 1993, Series 1995, Series 1997A, Series 1997B, Series 1998 and Series 1999), and (iii) all Water and Wastewater Revenue Bonds hereafter issued, by a pledge of and security interest in all Project Revenues (as defined herein) derived from the City's Water and Wastewater Systems (as defined herein) and by monies deposited in the funds and accounts (other than the Rebate Fund) established by the City under the General Ordinance (the "Water and Wastewater Funds").

**The Bonds are payable solely from Project Revenues and monies deposited in the Water and Wastewater Funds. The Bonds are limited obligations of the City and do not pledge the full faith, credit or taxing power of the City, or create any debt or charge against the tax or general revenues of the City, or create any lien or charge against any property of the City, other than against the Project Revenues and amounts, if any, at any time on deposit in the Water and Wastewater Funds.**

The Bonds will be issued only as fully registered bonds and, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Bonds. Purchasers will not receive certificates representing their ownership interest in the Bonds purchased. First Union National Bank, Philadelphia, Pennsylvania is the Fiscal Agent for the Bonds. The principal or redemption price of and interest on the Bonds are payable to DTC for redistribution to its participants and in turn to the beneficial owners of the Bonds. See "THE BONDS – Book-Entry Only System" herein.

The Bonds will be issued in denominations of \$5,000 or any integral multiple thereof. The Bonds will be dated and will bear interest from November 15, 2001. Interest on the Bonds will be payable semiannually on May 1 and November 1 of each year beginning May 1, 2002.

**The Bonds are subject to optional and mandatory sinking fund redemption prior to their respective stated maturities as described herein.**

Payment of the principal of and interest on the Bonds when due will be insured by a municipal bond insurance policy to be issued by Financial Guaranty Insurance Company simultaneously with the delivery of the Bonds. See "MUNICIPAL BOND INSURANCE POLICY" and Appendix VI – "SPECIMEN MUNICIPAL BOND INSURANCE POLICY" herein.

[LOGO]

*The Bonds are offered when, as and if issued and delivered to and received by the Underwriters, and subject to the legal opinion of Duane, Morris & Heckscher LLP and Mattioni Law Offices LTD, Co-Bond Counsel, both of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the Underwriters by Ballard Spahr Andrews & Ingersoll, LLP, and Jettie D. Newkirk, Esquire, both of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the City by the City Solicitor. It is expected that the Bonds in definitive form will be available for delivery to DTC in New York, New York on or about November 28, 2001.*

**Siebert Brandford Shank & Co., LLC**

**The Chapman Company****JPMorgan**

**A.G. Edwards & Sons, Inc.**  
**Arthurs, Lestrangle & Company, Inc.**  
**First American Municipals, Inc.**  
**H-T Capital Markets,**  
**a Division of Hefren-Tillotson, Inc.**  
**Loop Capital Markets, LLC**

**Morgan Stanley Dean Witter**  
**Morgan Stanley & Co. Incorporated**  
**PNC Capital Markets, Inc.**  
**RRZ Public Markets, Inc.**  
**Southwestern Capital Markets, Inc.**

**\$250,000,000**

**The City of Philadelphia, Pennsylvania**

**Water and Wastewater Revenue Bonds, Series 2001A**

**Maturity Schedule**

| <u>Maturity<br/>(November 1)</u> | <u>Principal</u> | <u>Interest<br/>Rate</u> | <u>Yield</u> | <u>Maturity<br/>(November 1)</u> | <u>Principal</u> | <u>Interest<br/>Rate</u> | <u>Yield</u> |
|----------------------------------|------------------|--------------------------|--------------|----------------------------------|------------------|--------------------------|--------------|
| 2011                             | \$2,500,000      | 5.50%                    | 3.950%       | 2020                             | \$7,525,000      | 5.375%                   | 4.800%       |
| 2016                             | 6,090,000        | 5.25                     | 4.500        | 2021                             | 7,915,000        | 4.80                     | 4.950        |
| 2017                             | 6,485,000        | 5.25                     | 4.590        | 2022                             | 8,325,000        | 5.25                     | 4.900        |
| 2018                             | 6,805,000        | 5.375                    | 4.660        | 2023                             | 8,785,000        | 5.25                     | 4.950        |
| 2019                             | 7,155,000        | 5.375                    | 4.730        | 2024                             | 9,270,000        | 5.25                     | 4.950        |

\$179,145,000 5.00% Term Bonds due November 1, 2031, Price 98.469%

**\$35,920,000**

**The City of Philadelphia, Pennsylvania**

**Water and Wastewater Revenue Refunding Bonds, Series 2001B**

**Maturity Schedule**

| <u>Maturity<br/>(November 1)</u> | <u>Principal</u> | <u>Interest<br/>Rate</u> | <u>Yield</u> |
|----------------------------------|------------------|--------------------------|--------------|
| 2011                             | \$8,080,000      | 5.50%                    | 3.950%       |
| 2011                             | 2,400,000        | 3.80                     | 3.950        |
| 2012                             | 8,030,000        | 5.50                     | 4.090        |
| 2013                             | 8,475,000        | 5.25                     | 4.220        |
| 2014                             | 8,935,000        | 5.25                     | 4.320        |

[CREST]

**THE CITY OF PHILADELPHIA, PENNSYLVANIA**

---

**MAYOR**

HONORABLE JOHN F. STREET

---

**MAYOR'S CHIEF OF STAFF**

Joyce S. Wilkerson

---

**MAYOR'S CABINET**

Janice D. Davis ..... Secretary of Financial Oversight/Director of Finance  
William R. Thompson ..... Acting City Solicitor  
Joseph S. Martz ..... Managing Director  
George R. Burrell, Jr. .... Secretary of External Affairs  
Augusta Clark ..... Secretary of Authorities, Boards and Commissions  
James Cuorato ..... Director of Commerce/City Representative  
Debra A. Kahn ..... Secretary of Education  
John F. Timoney ..... Police Commissioner/Secretary of Public Safety  
Maxine Griffith ..... Secretary of Strategic Planning and Initiatives/  
Executive Director of City Planning Commission  
Dianah L. Neff ..... Chief Information Officer

---

**City Treasurer**

Folasade A. Olanipekun

---

**City Controller**

Jonathan A. Saidel

---

**PHILADELPHIA WATER DEPARTMENT  
ARAMARK Tower at One Reading Center  
Philadelphia, Pennsylvania 19107**

Kumar Kishinchand, Water Commissioner  
Bernard Brunwasser, Deputy Water Commissioner  
David A. Katz, Deputy Water Commissioner  
Susan K. Lior, Deputy Water Commissioner  
Richard E. Roy, Deputy Water Commissioner  
Joseph S. Clare, III, Assistant General Manager, Finance and Administration  
J. Barry Davis, General Counsel to the Water Department  
Lorin Fields, General Manager, Human Resources  
Denise Garrett, Assistant Finance Director, Water Revenue Bureau  
Ed Grusheski, General Manager, Public Affairs  
Thomas J. Kulesza, Acting General Manager, Planning and Engineering

---

**Consulting Engineer**

Black & Veatch Corporation, Kansas City, Missouri

---

**Financial Advisors**

Fairmount Capital Advisors, Inc.  
and  
Phoenix Capital Partners, LLP

---

No dealer, broker, salesman or other person has been authorized by the City to give any information or to make any representations with respect to the Bonds other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon. 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.

This Official Statement is not to be construed as a contract with the purchasers of the Bonds. Statements contained in this Official Statement which involve estimates, forecasts or other matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as representations of fact. This information and expressions of opinions herein are subject to change without notice, and neither 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 City or the Water Department since the date hereof. This Official Statement, including any supplement or amendment thereto, is intended to be deposited with one or more nationally recognized municipal securities information repositories.

The information set forth herein has been obtained from the City and other sources believed to be reliable but is not guaranteed as to accuracy or completeness by the Underwriters. 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 City or the Water Department since the date hereof.

This Official Statement is submitted in connection with the sale of the securities referred to herein and may not be reproduced or used, in whole or in part, for any other purpose.

The order and placement of materials in this Official Statement, including the Appendices hereto, 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.

**IN CONNECTION WITH THE OFFERING OF THE BONDS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT PRIOR NOTICE.**

---

## TABLE OF CONTENTS

|   | <u>Page</u> |  | <u>Page</u> |
|---|-------------|--|-------------|
| INTRODUCTORY STATEMENT .....                      | 1           | Billing and Collections .....          | 40          |
| General .....                                     | 1           | Compliance with Rate Covenants.....    | 41          |
| The Water Department .....                        | 1           | LITIGATION AND CLAIMS .....            | 41          |
| Rates and Rate Covenant.....                      | 2           | TAX EXEMPTION .....                    | 42          |
| Authorization for the Bonds .....                 | 2           | NEGOTIABLE INSTRUMENTS.....            | 44          |
| Plan of Finance.....                              | 3           | CONSULTING ENGINEER'S REPORT.....      | 44          |
| Security for the Bonds .....                      | 3           | UNDERWRITING.....                      | 44          |
| Bond Insurance.....                               | 4           | RATINGS .....                          | 44          |
| Miscellaneous.....                                | 4           | LEGAL MATTERS .....                    | 45          |
| PLAN OF FINANCE.....                              | 4           | FINANCIAL ADVISORS .....               | 45          |
| ESTIMATED SOURCES AND USES OF FUNDS.....          | 5           | NO LITIGATION OPINION .....            | 45          |
| THE BONDS .....                                   | 5           | CERTAIN REFERENCES.....                | 45          |
| General .....                                     | 5           | VERIFICATION OF MATHEMATICAL           |             |
| Redemption of the Bonds .....                     | 6           | COMPUTATIONS.....                      | 46          |
| Notice of Redemption.....                         | 7           | CONTINUING DISCLOSURE .....            | 46          |
| Debt Service Requirements .....                   | 8           | APPENDIX I FINANCIAL STATEMENTS OF THE |             |
| Book-Entry Only System .....                      | 8           | WATER FUND FOR FISCAL YEARS            |             |
| SECURITY FOR THE BONDS.....                       | 10          | ENDED JUNE 30, 2000 AND 1999.....      | I-1         |
| Pledge of Project Revenues .....                  | 10          | APPENDIX II ENGINEERING REPORT .....   | II-1        |
| Water and Wastewater Funds .....                  | 10          | APPENDIX III SUMMARIES OF CERTAIN      |             |
| Application of Project Revenues .....             | 11          | PROVISIONS OF THE ACT;                 |             |
| Debt Reserve Account.....                         | 12          | CERTAIN DEFINITIONS AND                |             |
| Rate Covenant .....                               | 12          | SUMMARIES OF CERTAIN                   |             |
| Limitations on Effectiveness of Pledge of Project |             | PROVISION OF THE GENERAL               |             |
| Revenues and Water and Wastewater Funds....       | 13          | ORDINANCE; AND CERTAIN                 |             |
| Additional Bonds.....                             | 13          | COVENANTS OF THE CITY OF               |             |
| Transfer to an Authority .....                    | 14          | PHILADELPHIA FOR THE BENEFIT           |             |
| MUNICIPAL BOND INSURANCE POLICY .....             | 14          | OF THE BOND INSURER .....              | III-1       |
| Financial Guaranty Insurance Company Policy ..... | 14          | APPENDIX IV CERTAIN INFORMATION        |             |
| REMEDIES OF BONDHOLDERS .....                     | 15          | CONCERNING THE CITY OF                 |             |
| THE WATER DEPARTMENT.....                         | 16          | PHILADELPHIA .....                     | IV-1        |
| General .....                                     | 16          | APPENDIX V FORM OF OPINION OF CO-BOND  |             |
| Administration.....                               | 17          | COUNSEL.....                           | V-1         |
| Personnel .....                                   | 19          | APPENDIX VI SPECIMEN MUNICIPAL BOND    |             |
| Relationship to the City .....                    | 19          | INSURANCE POLICY .....                 | VI-1        |
| The Water System .....                            | 20          | APPENDIX VII FORM OF CONTINUING        |             |
| The Wastewater System .....                       | 22          | DISCLOSURE AGREEMENT .....             | VII-1       |
| Capital Improvement Program .....                 | 28          |  |             |
| Future Financings .....                           | 29          |  |             |
| Commonwealth Grants.....                          | 29          |  |             |
| Enhanced Security.....                            | 30          |  |             |
| HISTORICAL COMPARATIVE STATEMENT OF               |             |  |             |
| REVENUES AND EXPENSES (LEGALLY                    |             |  |             |
| ENACTED BASIS) .....                              | 31          |  |             |
| Analysis of Comparative Statement of Revenues     |             |  |             |
| and Expenses .....                                | 33          |  |             |
| Development of Adopted Fiscal Year 2002           |             |  |             |
| Budget .....                                      | 34          |  |             |
| Revenues, Expenses and Debt Service .....         | 35          |  |             |
| RATES .....                                       | 38          |  |             |
| Rate Setting Process .....                        | 38          |  |             |
| Current Rate Structure.....                       | 38          |  |             |

**OFFICIAL STATEMENT**  
**relating to**

**The City of Philadelphia, Pennsylvania**  
**\$250,000,000 Water and Wastewater Revenue Bonds, Series 2001A**  
**\$35,920,000 Water and Wastewater Revenue Refunding Bonds, Series 2001B**

---

**INTRODUCTORY STATEMENT**

**General**

This Official Statement, including the cover page and appendices attached hereto, sets forth certain information in connection with the issuance by The City of Philadelphia, a corporation and body politic existing under the laws of the Commonwealth of Pennsylvania (the “City”) of its Water and Wastewater Revenue Bonds, Series 2001A (the “Series 2001A Bonds”) and its Water and Wastewater Revenue Refunding Bonds, Series 2001B (the “Series 2001B Bonds”, together with the Series 2001A Bonds, the “Bonds”). Unless otherwise indicated, capitalized terms used in this Official Statement are defined in Appendix III - “SUMMARIES OF CERTAIN PROVISIONS OF THE ACT; CERTAIN DEFINITIONS AND SUMMARIES OF CERTAIN PROVISIONS OF THE GENERAL ORDINANCE; AND CERTAIN COVENANTS OF THE CITY OF PHILADELPHIA FOR THE BENEFIT OF THE BOND INSURER” (hereinafter referred to as “SUMMARIES”).

The Bonds are being issued for the purpose of providing funds which, together with other available funds of the Water Department, will be applied (i) to fund capital improvements to the City’s Water and Wastewater Systems (as hereinafter defined), (ii) to refund a portion of the City’s Water and Wastewater Revenue Bonds, Series 1993, (iii) to fund the Debt Reserve Account of the Sinking Fund (as hereinafter defined), (iv) to fund capitalized interest on the Series 2001A Bonds, and (v) to pay costs of issuance relating to the Bonds.

**The Bonds are payable solely from Project Revenues (as hereinafter defined) and monies deposited in the Water and Wastewater Funds (other than the Rebate Fund) (the “Water and Wastewater Funds”) described herein. The Bonds are limited obligations of the City and do not pledge the full faith, credit or taxing power of the City, nor create any debt or charge against the tax or general revenues of the City, nor create any lien or charge against any property of the City, other than against the Project Revenues and amounts, if any, at any time on deposit in the Water and Wastewater Funds.**

**The Water Department**

Pursuant to the Philadelphia Home Rule Charter adopted pursuant to authorization of The First Class City Home Rule Act, approved April 21, 1949, P.L. 665 §1 et seq. (53 P.S. §13101 et seq.) (the “Charter”), the City’s Water Department (the “Water Department”) has the power and duty to operate, maintain, repair and improve the City’s water system (the “Water System”) and the City’s wastewater system (the “Wastewater System” and together with the Water System, the “Water and Wastewater Systems”). Under the General Ordinance (as hereinafter defined), the Water and Wastewater Systems have been combined as one continuing project for the purpose of revenue bond financing. This has the effect, among other things, of making all revenues of the two systems available for debt service for all Water and Wastewater Revenue Bonds (as defined herein). See “WATER DEPARTMENT” herein.

The Water Department, which began Water System service in 1801, supplies water to the City and a portion of Bucks County, Pennsylvania and wastewater service to the City and to ten municipalities and authorities located in Montgomery, Delaware and Bucks Counties, Pennsylvania. The population served by the Water System is approximately 1.672 million and the population served by the Wastewater System is approximately 2.218 million.

In connection with the authorization of the Bonds, Black & Veatch Corporation performed engineering evaluations in August 2001 of the then current condition, use and maintenance of the Water and Wastewater Systems. Such engineering evaluations mandated by the General Ordinance as a condition to the issuance of the bonds have resulted in findings that the Water and Wastewater Systems operated by the Water Department are in good operating condition or that adequate steps are being taken to return them to good operating condition. Such engineering evaluations prepared by Black & Veatch Corporation provide the basis of such findings in an engineering report dated November 6, 2001 (the "Engineering Report"). See Appendix II – "ENGINEERING REPORT."

### **Rates and Rate Covenant**

Under the Charter, the Water Department is empowered and required to establish (i) rates for water and wastewater service, without further authorization of the City Council, at levels which provide sufficient revenue to meet all operating expenses of the Water and Wastewater Systems, including interdepartmental charges for services provided to the Water Department, and (ii) debt service requirements on all obligations issued for the Water Department, as well as other specific covenants of the General Ordinance. See "RATES."

### **Authorization for the Bonds**

The Bonds are being issued under The First Class City Revenue Bond Act, P.L. 955, Act No. 234 of the General Assembly of the Commonwealth of Pennsylvania, approved October 18, 1972 (the "Act") and the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989, approved June 24, 1993 (the "Restated General Ordinance"), as supplemented by the First Supplemental Ordinance (the "First Supplemental Ordinance") authorizing the issuance of Water and Wastewater Revenue Bonds, Series 1993 (the "Series 1993 Bonds"), approved June 24, 1993, the Second Supplemental Ordinance (the "Second Supplemental Ordinance") authorizing the issuance of Water and Wastewater Revenue Bonds, Series 1995 (the "Series 1995 Bonds"), approved May 9, 1994, the Third Supplemental Ordinance (the "Third Supplemental Ordinance") authorizing the issuance of Water and Wastewater Revenue Bonds, Series 1997A and Water and Wastewater Revenue Bonds, Variable Rate Series 1997B (collectively the "Series 1997 Bonds") approved October 27, 1997, the Fourth Supplemental Ordinance (the "Fourth Supplemental Ordinance") authorizing the issuance of the Series 1998 Bonds, approved December 11, 1998, the Fifth Supplemental Ordinance (the "Fifth Supplemental Ordinance") authorizing the issuance of the Series 1999 Bonds, approved December 11, 1998, the Sixth Supplemental Ordinance (the "Sixth Supplemental Ordinance") authorizing the issuance of the Series 1999A Bonds (Pennvest Loan), approved December 11, 1998 and the Seventh Supplemental Ordinance (the "Seventh Supplemental Ordinance") authorizing the issuance of the Bonds, approved May 10, 2001. The Restated General Ordinance, as supplemented and amended by any amendment thereto contained in the First Supplemental Ordinance, the Second Supplemental Ordinance, the Third Supplemental Ordinance, the Fourth Supplemental Ordinance, the Fifth Supplemental Ordinance, the Sixth Supplemental Ordinance and the Seventh Supplemental Ordinance, is herein referred to as the "General Ordinance."

Pursuant to the Act, cities of the first class are authorized to issue revenue bonds to finance revenue producing projects and to refund certain outstanding bonds, including revenue bonds issued under the Act, but the bonds must be payable solely from Project Revenues as defined in the Act (the "Project Revenues").

## **Outstanding Indebtedness**

Pursuant to the City's General Water and Sewer Revenue Bond Ordinance of 1974, approved May 16, 1974 (Bill No. 1263), as amended and supplemented (the "Prior Ordinance"), the City has previously issued and there are currently outstanding \$77,248,996 aggregate principal amount of water and sewer revenue bonds consisting of the Fourteenth Series, Fifteenth Series and Sixteenth Series (collectively, the "Water and Sewer Revenue Bonds").

In addition to the Water and Sewer Revenue Bonds authorized and issued pursuant to the Prior Ordinance, the City has previously issued and there are currently outstanding \$1,544,010,000 aggregate principal amount of Water and Wastewater Revenue Bonds (consisting of the Series 1993 Bonds, the Series 1995 Bonds, the Series 1997 Bonds, the Series 1998 Bonds and the Series 1999 Bonds) pursuant to the General Ordinance. Upon the issuance of the Series 1993 Bonds, the General Ordinance superseded the Prior Ordinance and the outstanding Water and Sewer Revenue Bonds became subject to the General Ordinance and are no longer subject to the Prior Ordinance. The Water and Sewer Revenue Bonds, the Series 1993 Bonds, the Series 1995 Bonds, the Series 1997 Bonds, the Series 1998 Bonds and the Series 1999 Bonds are herein referred to as the "Outstanding Bonds."

Upon the issuance of the Bonds, the Outstanding Bonds and the Bonds will be equally and ratably secured under the General Ordinance. In addition, the City borrowed \$6.7 million from Pennvest and issued and privately placed a revenue bond with Pennvest pursuant to the Sixth Supplemental Ordinance. The Pennvest Loan is equally and ratably secured with the Outstanding Bonds and the Bonds under the General Ordinance. The Outstanding Bonds, the Bonds and the Pennvest Loan and bonds of all series hereafter issued under the General Ordinance as amended or supplemented, are hereinafter referred to as the "Water and Wastewater Revenue Bonds." First Union National Bank, Philadelphia, Pennsylvania, is acting as Fiscal Agent for the Water and Wastewater Revenue Bonds (the "Fiscal Agent").

As of June 30, 2001 the City had outstanding \$13,182,650 aggregate principal amount of general obligation bonds (the "General Obligation Bonds") attributable to the Water and Wastewater Systems which includes \$12,592,650 of general obligation bonds issued in 1993 that are evidenced by a loan from Pennvest to the City for Water Department purposes. The General Obligation Bonds, along with the 1993 Pennvest Loan, attributable to the Water and Wastewater Systems, are self-liquidating debt of the City payable out of the Water and Wastewater Funds after the payment of the Water and Wastewater Revenue Bonds.

## **Plan of Finance**

The proceeds of the Bonds, together with other available funds from the Water Department, will be used to fund capital improvements to the City's Water and Wastewater Systems, to refund a portion of the City's Water and Wastewater Revenue Bonds, Series 1993, to fund the Debt Reserve Account of the Sinking Fund, to fund capitalized interest on the Series 2001A Bonds and to pay costs of issuance relating to the Bonds. See "PLAN OF FINANCE" below.

## **Security for the Bonds**

The Bonds are payable from and secured by a pledge of all Project Revenues and amounts on deposit in the Water and Wastewater Funds. See Appendix III – "SUMMARIES".

The City may issue additional bonds on a parity with the Bonds and may elect to secure other obligations on a parity with the Bonds pursuant to the terms of the General Ordinance.

For further details concerning security for the Bonds, see "SECURITY FOR THE BONDS."



## **Bond Insurance**

The scheduled payment of principal and interest on the Bonds when due will be insured by a municipal bond insurance policy to be issued simultaneously with the delivery of each series of the Bonds hereunder by Financial Guaranty Insurance Company (the "Bond Insurer"). See "MUNICIPAL BOND INSURANCE POLICY" and Appendix VI – "SPECIMEN MUNICIPAL BOND INSURANCE POLICY."

## **Miscellaneous**

Brief descriptions of the Water Department, the Bonds and the security therefor, and certain information about the City are included herein. Such descriptions and information do not purport to be comprehensive or definitive. All references herein to the Act, the Charter, the General Ordinance and the Engineering Report, are qualified in their entirety by reference to each such document. Copies of the foregoing documents and the financial statements of the City for the fiscal year ended June 30, 2000 are available from the Office of the City Treasurer, Suite 640, Municipal Services Building, 1401 J.F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102.

Financial statements of the Water Fund for the Fiscal Years ended June 30, 2000 and 1999 are attached hereto as Appendix I. The Engineering Report of Black & Veatch Corporation is attached hereto as Appendix II. Summaries of certain provisions of the Act and the General Ordinance (including definitions of certain terms) are attached hereto as Appendix III. Certain information concerning the City is attached hereto as Appendix IV. Appendix V hereto is the form of opinion of Duane, Morris & Heckscher LLP and Mattioni Law Offices LTD, Co-Bond Counsel, to be delivered in connection with the issuance and delivery of the Bonds. Appendix VI hereto contains a specimen of the municipal bond insurance policy (the "Bond Insurance Policy") to be issued by the Bond Insurer to guaranty payment of the Bonds. Appendix VII contains a form of Continuing Disclosure Agreement.

The foregoing information is furnished solely to provide limited introductory information with respect to the Bonds and does not purport to be comprehensive. All such information is qualified in its entirety by reference to the more detailed descriptions appearing elsewhere in this Official Statement, inclusive of the Appendices, which should be read in its entirety, and to the complete documents referenced herein. The sale of the Bonds is made only by means of this entire Official Statement.

## **PLAN OF FINANCE**

The proceeds of the Bonds, together with interest earnings thereon and certain other available funds of the Water Department, are being used (i) to fund capital improvements to the City's Water and Wastewater Systems; (ii) to refund a portion of the City's Water and Wastewater Revenue Bonds, Series 1993; (iii) to fund the Debt Reserve Account of the Sinking Fund; (iv) to fund capitalized interest on the Series 2001A Bonds; and (v) to pay costs of issuance relating to the Bonds.

The proceeds of the Series 2001A Bonds will be used to fund capital improvements to the City's Water and Wastewater Systems.

The proceeds of the Series 2001B Bonds, when delivered, will be used to refund a portion of the City's Water and Wastewater Revenue Bonds, currently outstanding in the aggregate principal amount of \$1,544,010,000. The Water and Wastewater Revenue Bonds expected to be refunded consist of \$35,920,000 of the Series 1993 Bonds due June 15, 2012, 2013, 2014 and 2015, currently outstanding in the aggregate principal amount of \$35,715,000.

The City will irrevocably deposit a portion of the proceeds of the Series 2001B Bonds, when delivered, together with other available funds of the Water Department, in an escrow fund (the "Escrow

Fund”), for the refunded bonds, to be held by First Union National Bank, as escrow agent (the “Escrow Agent”) pursuant to an escrow deposit agreement (the “Escrow Agreement”) between the City and the Escrow Agent. Any amount so deposited will be invested in Qualified Escrow Securities (as defined in the General Ordinance), which will mature and bear interest at such times and in such amounts as to be sufficient to pay the principal or redemption price, if any, and interest on the refunded bonds when due.

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

The following table sets forth estimated sources and uses of funds.

|   | <u>Series 2001A Bonds</u> | <u>Series 2001B Bonds</u> | <u>Total</u>      |
|---|---------------------------|---------------------------|-------------------|
| <u>Sources of Funds:</u>                    |                           |                           |                   |
| Par Amount of the Bonds                     | \$250,000,000.00          | \$35,920,000.00           | \$285,920,000.00  |
| Reoffering Premium                          | 55,500.60                 | 3,454,215.70              | 3,509,716.30      |
| Accrued Interest                            | <u>457,694.84</u>         | <u>68,296.04</u>          | <u>525,990.88</u> |
| Total Sources of Funds                      | \$250,513,195.44          | \$39,442,511.74           | \$289,955,707.18  |
| <br><u>Uses of Funds:</u>                   |                           |                           |                   |
| Deposit to the Construction Fund            | \$227,852,400.61          | \$ 760.33                 | \$227,853,160.94  |
| Deposit to Capitalized Interest Account (a) | 5,339,994.73              | ---                       | 5,339,994.73      |
| Deposit to the Debt Reserve Account         | 12,862,775.00             | ---                       | 12,862,775.00     |
| Bond Insurance Premium                      | 1,825,623.91              | 183,993.56                | 2,009,617.47      |
| Underwriters’ Discount                      | 1,593,250.00              | 228,918.16                | 1,822,168.16      |
| Cost of Issuance (b)                        | 581,456.35                | 83,543.65                 | 665,000.00        |
| Deposit to the Debt Service Account (c)     | <u>457,694.84</u>         | <u>68,296.04</u>          | <u>525,990.88</u> |
|   | \$250,513,195.44          | \$39,442,511.74           | \$289,955,707.18  |

- 
- (a) Includes capitalized interest on the Series 2001A Bonds through May 1, 2002 and accrued interest on the Bonds from November 15, 2001 through the Closing. Capitalized interest will be deposited in the Debt Service Account of the Sinking Fund and used to pay interest on the Series 2001A Bonds through May 1, 2002. Accrued interest will be deposited in the Debt Service Account of the Sinking Fund and applied to pay the first installment of interest due on the Bonds.
  - (b) Includes legal, printing, rating agency, Fiscal Agent fees, financial advisor fee and other expenses of the offering.
  - (c) Accrued interest on the Bonds from November 15, 2001 through the Closing.

### **THE BONDS**

#### **General**

The Bonds will be issued in two series in the aggregate principal amounts and will be dated and bear interest at the rates and mature (subject to prior redemption), as shown on the cover and inside cover page of this Official Statement. The Bonds will be issued in fully-registered form, registered in the name of Cede & Co., as nominee of The Depository Trust Company (“DTC”).

The Bonds will be issuable in denominations of \$5,000 or any integral multiple thereof and will mature in the years and in the amounts set forth in the inside front cover hereof. The Bonds will be dated,

and will bear interest from, November 15, 2001. Interest on the Bonds is payable semiannually on May 1 and November 1 (each, an “Interest Payment Date”) each year commencing May 1, 2002. Interest will be payable by check or draft mailed on each Interest Payment Date (or the next business day if the Interest Payment Date is not a Business Day) by the Fiscal Agent to the registered owners of such Bonds as of the applicable Record Date. The Record Date for the Bonds will be each April 15 and October 15, commencing on May 1, 2002. The Bonds will bear interest at the rates set forth on the inside front cover hereof and interest will be calculated on the basis of a 360-day year comprised of twelve 30-day months. The Bonds are subject to optional redemption and mandatory sinking fund redemption prior to their respective stated maturities as described under “THE BONDS - Redemption of the Bonds” below.

**Redemption of the Bonds**

*Series 2001A Bonds*

*Optional Redemption*

The Series 2001A Bonds maturing on or prior to November 1, 2012 are not subject to optional redemption prior to maturity.

The Series 2001A Bonds maturing on or after November 1, 2013 are subject to optional redemption prior to maturity on or after November 1, 2012, at the option of the City, as a whole or in part on any date in the maturities selected by the City and within a maturity by lot as determined by the Fiscal Agent at the redemption price at par (stated as a percentage of the principal amount), plus accrued interest to the redemption date.

*Mandatory Sinking Fund Redemption*

The Series 2001A Bonds maturing on November 1, 2031 are subject to mandatory sinking fund redemption prior to maturity, as drawn by lot by the Fiscal Agent, on November 1, of the following years at a redemption price equal to 100% of the principal amounts set forth below.

| <u>Year</u> | <u>Principal Amount of Mandatory Sinking Fund Redemption</u> |
|-------------|--|
| 2025        | \$ 9,690,000   |
| 2026        | 10,220,000   |
| 2027        | 10,695,000   |
| 2028        | 34,400,000   |
| 2029        | 36,160,000   |
| 2030        | 38,015,000   |
| 2031*       | 39,965,000   |

---

\*Maturity

The principal amount of the Series 2001A Bonds required to be redeemed on each mandatory sinking fund redemption date may be reduced by the principal amount of the Series 2001A Bonds theretofore redeemed (otherwise than by mandatory sinking fund redemption) or delivered to the Fiscal Agent for cancellation, and not theretofore applied as a credit against any mandatory sinking fund redemption obligation. Any such reduction shall be applied as a credit against the mandatory sinking fund obligation for the year or years selected by the City.

### ***Series 2001B Bonds***

#### *Optional Redemption*

The Series 2001B Bonds maturing on or prior to November 1, 2012 are not subject to optional redemption prior to maturity.

The Series 2001B Bonds maturing on or after November 1, 2013 are subject to optional redemption prior to maturity on or after November 1, 2012, at the option of the City, as a whole or in part on any date in the maturities selected by the City and within a maturity by lot as determined by the Fiscal Agent at the redemption price at par (stated as a percentage of the principal amount), plus accrued interest to the redemption date.

The principal amount of the Series 2001B Bonds required to be redeemed on each mandatory sinking fund redemption date may be reduced by the principal amount of the Series 2001B Bonds theretofore redeemed (otherwise than by mandatory sinking fund redemption) or delivered to the Fiscal Agent for cancellation, and not theretofore applied as a credit against any mandatory sinking fund redemption obligation. Any such reduction shall be applied as a credit against the mandatory sinking fund obligation for the year or years selected by the City.

### **Notice of Redemption**

Notice of redemption of the Bonds shall be mailed by first class mail by the Fiscal Agent, not less than 30 days nor more than 60 days prior to the date fixed for redemption, to DTC and one or more Information Services (as defined in Appendix VII - "FORM OF CONTINUING DISCLOSURE AGREEMENT"). From and after the date fixed for redemption, interest shall cease to accrue. Failure by the Fiscal Agent to give notice to DTC or any one or more Information Services or failure of DTC or any Information Services to receive notice or any defect in any notice shall not affect the validity of the proceedings for redemption.

If at the time of mailing notice of redemption the City shall not have deposited with the Fiscal Agent moneys sufficient to redeem the Bonds called for redemption, such notice may state that it is conditional in that it is subject to the deposit of the redemption moneys with the Fiscal Agent not later than the redemption date, and such notice shall be of no effect unless such moneys are so deposited.

## Debt Service Requirements

| <u>Fiscal Year</u><br><u>Ending June 30</u> | <u>Debt Service on</u><br><u>Outstanding</u><br><u>Bonds</u> | <u>Debt Service on</u><br><u>Series 2001A Bonds</u> | <u>Debt Service on</u><br><u>Series 2001B Bonds</u> | <u>Aggregate Debt</u><br><u>Service</u> |
|---|--|---|---|---|
| 2002  | \$ 77,790,552  |   |   | \$ 77,790,552                           |
| 2003  | 146,047,786  | \$ 5,844,411  | \$ 872,088  | 150,786,415                             |
| 2004  | 146,066,041  | 12,674,626  | 1,891,275   | 158,654,072                             |
| 2005  | 146,082,036  | 12,674,626  | 1,891,275   | 158,670,067                             |
| 2006  | 146,120,050  | 12,674,626  | 1,891,275   | 158,708,081                             |
| 2007  | 146,666,932  | 12,674,626  | 1,891,275   | 159,254,963                             |
| 2008  | 146,663,476  | 12,674,626  | 1,891,275   | 159,251,507                             |
| 2009  | 146,668,388  | 12,674,626  | 1,891,275   | 159,256,420                             |
| 2010  | 146,669,289  | 12,674,626  | 1,891,275   | 159,257,320                             |
| 2011  | 146,645,497  | 12,674,626  | 1,891,275   | 159,233,528                             |
| 2012  | 146,635,030  | 12,674,626  | 1,891,275   | 159,223,061                             |
| 2013  | 133,796,675  | 15,105,876  | 12,103,475  | 148,668,156                             |
| 2014  | 139,649,091  | 12,537,126  | 9,164,850   | 151,946,567                             |
| 2015  | 139,600,374  | 12,537,126  | 9,166,556   | 151,898,981                             |
| 2016  | 139,662,339  | 12,537,126  | 9,169,544   | 151,963,684                             |
| 2017  | 149,025,205  | 12,537,126  |   | 161,562,331                             |
| 2018  | 57,290,860   | 18,467,264  |   | 75,758,124                              |
| 2019  | 57,225,068   | 18,532,170  |   | 75,757,238                              |
| 2020  | 48,231,208   | 18,499,054  |   | 66,730,262                              |
| 2021  | 38,412,073   | 18,473,879  |   | 56,885,952                              |
| 2022  | 38,434,648   | 18,449,354  |   | 56,884,002                              |
| 2023  | 38,440,303   | 18,447,160  |   | 56,887,463                              |
| 2024  | 38,439,955   | 18,448,669  |   | 56,888,624                              |
| 2025  | 22,507,055   | 18,459,531  |   | 40,966,586                              |
| 2026  | 22,495,616   | 18,470,588  |   | 40,966,203                              |
| 2027  | 22,562,186   | 18,405,000  |   | 40,967,186                              |
| 2028  | 22,527,704   | 18,437,250  |   | 40,964,954                              |
| 2029  | 22,577,477   | 18,389,375  |   | 40,966,852                              |
| 2030  | 0  | 40,967,000  |   | 40,967,000                              |
| 2031  | 0  | 40,963,000  |   | 40,963,000                              |
| 2032  | 0  | 40,963,625  |   | 40,963,625                              |

## Book-Entry Only System

General. DTC will act as securities depository for the Bonds. The Bonds will be initially issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee). One fully-registered bond certificate will be issued for each maturity of the Bonds, in the aggregate principal amount of such maturity, and will be deposited with or for the benefit of DTC.

DTC is a limited-purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, 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 ("Participants") deposit with DTC. DTC also facilitates the clearance and settlement among Participants of securities transactions, such as transfers and pledges, in deposited securities through computerized book-entry changes in Participants' accounts, thereby eliminating the need for physical movement of

securities certificates. Direct Participants (“Direct Participants”) include securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. 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 (“Indirect Participants”). The Rules applicable to DTC and its Participants are on file with the Securities and Exchange Commission.

Purchases of the 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 Participants’ 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 the 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 City 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 Participant’s accounts on the 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 the 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 Fiscal Agent, or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments to DTC are the responsibility of the City or the Fiscal Agent, 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 City or the Fiscal Agent. Under such circumstances, in the

event that a successor securities depository is not obtained, bond certificates are required to be printed and delivered. The City 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 CITY AND THE FISCAL AGENT WILL NOT HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE ACCURACY OF THE RECORDS OF DTC, ITS NOMINEE OR ANY DTC PARTICIPANT WITH RESPECT TO ANY OWNERSHIP INTEREST IN THE BONDS, OR PAYMENTS TO, OR THE PROVIDING OF NOTICE FOR, DTC PARTICIPANTS OR THE INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS.

**The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof. For further information, Beneficial Owners should contact DTC in New York, New York.**

## SECURITY FOR THE BONDS

### Pledge of Project Revenues

Pursuant to the General Ordinance, the City pledges and assigns to the Fiscal Agent, in trust, for the security and payment of all Water and Wastewater Revenue Bonds (other than Subordinated Bonds as defined therein) issued under or subject to the General Ordinance, and grants to the Fiscal Agent, in trust, a lien on and security interest in all Project Revenues and amounts on deposit in or standing to the credit of the Water and Wastewater Funds. See Appendix III – "SUMMARIES". The Fiscal Agent shall hold and apply the Project Revenues and funds and accounts, in trust, for the equal and ratable benefit and security of all holders of Water and Wastewater Revenue Bonds (other than Subordinated Bonds) issued under or subject to the General Ordinance. The General Ordinance provides that such pledge may also be for the benefit of the provider of a Credit Facility or a Qualified Swap (as defined therein), or any other person who undertakes to provide monies for the account of the City for the payment of principal or redemption price of and interest on any series of Water and Wastewater Revenue Bonds (other than Subordinated Bonds) issued under or subject to the General Ordinance, on an equal and ratable basis.

### Water and Wastewater Funds

The Act and the General Ordinance establish the following funds and accounts to be held by the Fiscal Agent:

Revenue Fund;

Sinking Fund;

Debt Service Account;

Charges Account; and

Debt Reserve Account;

Subordinated Bond Fund;

Rate Stabilization Fund;

Residual Fund; and

Construction Fund;  
Existing Projects Account;  
Bond Proceeds Account; and  
Capital Account.

The foregoing funds are referred to herein as the “Water and Wastewater Funds.” The General Ordinance also establishes a Rebate Fund which is not held for the benefit of the holders of the Water and Wastewater Revenue Bonds.

The flow of funds under the General Ordinance and priority of payments are set forth below.

The Water and Wastewater Funds are required under the General Ordinance to be held separate and apart from all other funds and accounts of the City and the Fiscal Agent and the funds and accounts therein shall not be commingled with, loaned or transferred among themselves or to any other City funds or accounts except as expressly permitted by the General Ordinance.

The City is required by the General Ordinance to cause all Project Revenues received by it on any date to be deposited into the Revenue Fund upon receipt thereof by the City, and the Fiscal Agent shall, upon receipt of Project Revenues, deposit such Project Revenues into the Revenue Fund. The City and Fiscal Agent also shall cause to be deposited into the Revenue Fund such portion of proceeds of Bonds as designated by Supplemental Ordinance or Bond Committee Determination and any other funds directed to be deposited into the Revenue Fund by the City.

If at any time sufficient monies are not available in the Revenue Fund to pay Operating Expenses and to make the transfers described below under “Application of Project Revenues”, then amounts on deposit in the Construction Fund, Rate Stabilization Fund and Residual Fund may be loaned temporarily, at the written direction of the City, to the Revenue Fund for the payment of such Operating Expenses to the extent of the deficiency, until such loaned amounts are required by the Water Department for purposes of the Fund making the loan. If a similar deficiency exists in the Construction Fund, amounts on deposit in the Revenue Fund, Rate Stabilization Fund and Residual Fund may be loaned temporarily, at the written direction of the City, to the Construction Fund, to the extent of the deficiency, until required by the Water Department for purposes of the Fund making the loan.

The City has covenanted in the General Ordinance that it will not direct the Fiscal Agent to transfer, loan or advance proceeds of the Bonds or Project Revenues from the Water and Wastewater Funds to any City account for application other than for Water Department purposes. The General Ordinance permits the application of Project Revenues to pay Interdepartmental Charges and also permits monies to be transferred in each fiscal year from the Residual Fund to the City’s General Fund in an amount not to exceed the lower of (A) all “Net Reserve Earnings” (as defined below) or (B) \$4,994,000. The figure of \$4,994,000 has been reduced to \$4,137,590 by administrative agreement through Fiscal Year 2003. See “LITIGATION AND CLAIMS” herein. “Net Reserve Earnings” shall mean the amount of interest earnings during the fiscal year on amounts in the Debt Reserve Account and the Subordinated Bond Fund less the amount of interest earnings during the fiscal year on amounts in any such reserve funds and accounts giving rise to a rebate obligation pursuant to Section 148(f) of the Code.

### **Application of Project Revenues**

Under the provisions of the General Ordinance, Project Revenues are applied to the extent available in the following order of priority: (i) payment of Operating Expenses; (ii) payment of the principal or redemption price of and interest on Water and Wastewater Revenue Bonds issued under the General Ordinance (except Subordinated Bonds), payments under any Swap Agreement, payments under a Credit Facility to repay advances thereunder to pay any of the foregoing and payments with respect to fees and expenses in respect of a Credit Facility; (iii) payments into the Debt Reserve Account to the



extent necessary to cure a deficiency therein; (iv) payments into any debt reserve account established within the Sinking Fund and not held for the equal and ratable benefit of all Water and Wastewater Revenue Bonds (other than Subordinated Bonds) to the extent necessary to cure a deficiency therein; (v) payment of principal or redemption price of and interest on Subordinated Bonds; (vi) transfer to the City the amount necessary to pay General Obligation Bonds issued for the Water and Wastewater Systems; (vii) transfer to the Rate Stabilization Fund the amount determined by the Water Commissioner; (viii) transfer to the Capital Account of the Construction Fund the sum of the Capital Account Deposit Amount, the Debt Service Withdrawal and the Operating Expense Withdrawal, less any amounts transferred to the Capital Account from the Residual Fund; and (ix) transfer to the Residual Fund any amount remaining on deposit in the Revenue Fund.

### **Debt Reserve Account**

The General Ordinance establishes within the Sinking Fund a Debt Reserve Account which may be funded from the proceeds of each series of Water and Wastewater Revenue Bonds; provided, however, that if the Supplemental Ordinance authorizing a series of Water and Wastewater Revenue Bonds shall so authorize, the deposit to the Debt Reserve Account in respect of such Water and Wastewater Revenue Bonds may be accumulated from Project Revenues over a period of not more than three fiscal years after the issuance and delivery of such Water and Wastewater Revenue Bonds. The monies and investments in the Debt Reserve Account shall be held and maintained in an amount equal at all times to the Debt Reserve Requirement. If at any time the monies in the Debt Service Account of the Sinking Fund shall be insufficient to pay as and when due the principal of (and premium, if any) or interest on any Water and Wastewater Revenue Bonds or other obligations payable from the Debt Service Account (including Swap Agreements and Credit Facilities), the Fiscal Agent is required to pay over from the Debt Reserve Account the amount of such deficiency for deposit in the Debt Service Account. In lieu of the required deposit into the Debt Reserve Account, the City may cause to be deposited into the Debt Reserve Account a surety bond, an insurance policy or an irrevocable letter of credit meeting the requirements of the General Ordinance and the Bond Committee Determination.

In estimating debt service requirements on any bond bearing interest at a variable rate (the "Variable Rate Bonds") for purposes of funding the Debt Reserve Account, the City is entitled to assume that such Variable Rate Bonds will bear interest at a rate equal to (i) the average interest rate on the Variable Rate Bonds during the period of twenty-four (24) consecutive calendar months preceding the date of calculation or (ii) if the Variable Rate Bonds were not outstanding during the entire twenty-four (24) month period, the average interest rate on the Variable Rate Bonds since their date of issue or (iii) such other rate as may be specified in a Supplemental Ordinance or Determination (as defined in the General Ordinance).

### **Rate Covenant**

The rate covenant contained in the General Ordinance requires the City to establish rents, rates, fees and charges for the use of the Water and Wastewater Systems sufficient to yield Net Revenues, as defined therein, in each fiscal year at least equal to 1.20 times the Debt Service Requirements for such fiscal year (recalculated to exclude therefrom principal and interest payments in respect of Subordinated Bonds). In addition, Net Revenues, in each fiscal year, must be at least equal to 1.00 times: (i) the Debt Service Requirements for such fiscal year (including Debt Service Requirements in respect of Subordinated Bonds); (ii) amounts required to be deposited into the Debt Reserve Account during such fiscal year; (iii) the principal or redemption price of and interest on General Obligation Bonds issued for the Water and Wastewater Systems payable in such fiscal year; (iv) debt service requirements on Interim Debt payable in such fiscal year; and (v) the Capital Account Deposit Amount for such fiscal year, less amounts transferred from the Residual Fund to the Capital Account during such fiscal year. To ensure compliance with the rate covenant, the General Ordinance requires that the City review its rents, rates,

fees and charges not less than once in each Fiscal Year. For a discussion of the Water Department's experience in meeting the rate covenant, see "RATES - Compliance with Rate Covenants" herein.

In addition to the rate covenant described above, for each fiscal year ending on or after June 30, 2000, the City has agreed with the Fiscal Agent, for the benefit of Financial Guaranty Insurance Company ("FGIC"), for so long as the Series 1993 Bonds insured by FGIC are outstanding, to establish rates and charges for the use of the Water and Wastewater Systems sufficient to yield Net Revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such fiscal year) at least equal to 90% of the Debt Service Requirements (excluding debt service due on any Subordinated Bonds) in such fiscal year; and that, in addition to the conditions described below under "Additional Bonds," any calculation by a consulting engineer of projected rate covenant compliance in connection with the proposed issuance of additional Bonds for each fiscal year ending on or after June 30, 2000 must state that Net Revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such fiscal year) in each fiscal year included in the projection period are projected to be at least equal to 90% of the Debt Service Requirements (excluding debt service due on any Subordinated Bonds) in such fiscal year. The foregoing agreement is for the benefit of FGIC only and may be amended or waived by FGIC in its sole discretion without the consent of holders of the Bonds.

### **Limitations on Effectiveness of Pledge of Project Revenues and Water and Wastewater Funds**

The effectiveness of the pledge of the Project Revenues and the Water and Wastewater Funds may be limited because, while the Fiscal Agent will have custody of the Water and Wastewater Funds, the City will have complete control of deposits into and expenditures from the Water and Wastewater Funds, except that the City will not have control of expenditure of amounts on deposit in the Sinking Fund, including the Debt Reserve Account. No requisition procedure or other similar procedure will be established for the expenditure of monies by the City from the Water and Wastewater Funds, and no consent or approval of the Fiscal Agent is required to be obtained by the City as a condition of the City's expenditure of monies in the Water and Wastewater Funds. The Fiscal Agent will not monitor deposits into or withdrawals from the Water and Wastewater Funds (other than the Sinking Fund, including the Debt Reserve Account) or the purposes to which monies in the Water and Wastewater Funds are applied.

The General Ordinance provides that if, on any date when a deposit is required to be made of the Project Revenues, the City fails to comply with any provision of the General Ordinance, the Fiscal Agent is authorized to and shall seek, by mandamus or other suit, action or proceeding at law or in equity, the specific enforcement or performance of the obligation of the City to cause the Project Revenues to be transferred to the Revenue Fund.

No daily, monthly or other periodic deposits are required to be made into the Sinking Fund prior to the dates on which debt service payments on the Water and Wastewater Revenue Bonds are due.

The enforcement of remedies available to Bondholders (or the Fiscal Agent or any trustee for Bondholders) under the Act or the General Ordinance may be limited as described herein under "REMEDIES OF BONDHOLDERS."

### **Additional Bonds**

The General Ordinance permits the issuance of additional Bonds which may be secured on a parity with the Outstanding Bonds and the Bonds. The General Ordinance imposes certain conditions on the issuance of additional bonds thereunder, including the condition that a report of a consulting engineer be delivered to City Council stating that the Net Revenues are currently sufficient to comply with the rate covenant and are projected to be sufficient to comply with the rate covenant for each of the two fiscal years following the fiscal year in which the additional Water and Wastewater Revenue Bonds are to be

issued; provided that if interest on the additional Water and Wastewater Revenue Bonds or a portion thereof has been capitalized, the projection shall extend to the two fiscal years following the fiscal year up to which interest has been capitalized. See Appendix III – “SUMMARIES” for a discussion of the circumstances under which additional Water and Wastewater Revenue Bonds may be issued under the General Ordinance.

### **Transfer to an Authority**

The City is authorized under the General Ordinance, upon the satisfaction of the conditions specified in the General Ordinance, to convey and assign to a municipal authority or another entity all or substantially all of the City’s right, title and interest in the Water and Wastewater Systems and thereupon to be released from all of its obligations under the General Ordinance and under the Water and Wastewater Revenue Bonds.

For a further discussion of the funds and accounts, priority of payment, the rate covenant, transfer of the Water and Wastewater Systems and other provisions of the General Ordinance, see Appendix III – “SUMMARIES.”

## **MUNICIPAL BOND INSURANCE POLICY**

### **Financial Guaranty Insurance Company Policy**

Concurrently with the issuance of the Bonds, Financial Guaranty Insurance Company (“Financial Guaranty”) will issue its Municipal Bond New Issue Insurance Policy for the Bonds (the “Policy”). The Policy unconditionally guarantees the payment of that portion of the principal of and interest on the Bonds which has become due for payment, but shall be unpaid by reason of nonpayment by the issuer of the Bonds (the “Issuer”). 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 Bonds or the Paying Agent of the nonpayment of such amount by the Issuer. The Fiscal Agent will disburse such amount due on any 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 Bond includes any payment of principal or interest made to an owner of 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 Bonds. The Policy covers failure to pay principal of the 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 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.

Generally, in connection with its insurance of an issue of municipal securities, Financial Guaranty requires, among other things, (i) that it be granted the power to exercise any rights granted to the holders of such securities upon the occurrence of an event of default, without the consent of such holders, and that such holders may not exercise such rights without Financial Guaranty's consent, in each case so long as Financial Guaranty has not failed to comply with its payment obligations under its insurance policy; and

(ii) that any amendment or supplement to or other modification of the principal legal documents be subject to Financial Guaranty's consent. The specific rights, if any, granted to Financial Guaranty in connection with its insurance of the Bonds are set forth in the description of the principal legal documents appearing elsewhere in this Official Statement. Reference should be made as well to such description for a discussion of the circumstances, if any, under which the Issuer is required to provide additional or substitute credit enhancement, and related matters.

This Official Statement contains a section regarding the ratings and underlying ratings assigned to the Bonds and reference should be made to such section captioned "RATINGS" for a discussion of such ratings and the basis for their assignment to the Bonds.

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 June 30, 2001, the total capital and surplus of Financial Guaranty was approximately \$1.181 billion. 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 125 Park Avenue, New York, New York 10017, Attention: Communications Department (telephone number: 212-312-3000) or to the New York State Insurance Department at 25 Beaver Street, New York, New York 10004-2319, Attention: Financial Condition Property/Casualty Bureau (telephone number: 212-480-5187).

### **REMEDIES OF BONDHOLDERS**

Remedies under the Act and the General Ordinance available to Bondholders and to any trustee for Bondholders appointed by the holders of 25% in outstanding principal amount of any series of Water and Wastewater Revenue Bonds in default are described in Appendix III - "SUMMARIES." In addition to the remedies therein described, Bondholders or a trustee therefor are entitled under the Pennsylvania Uniform Commercial Code to remedies as secured parties in respect of the Project Revenues and the funds on deposit in the Water and Wastewater Funds.

The ultimate enforcement of Bondholders' rights upon any default by the City in the performance of its obligations under the Act, the General Ordinance and the Bonds will depend upon the application of remedies provided in the Act, the General Ordinance and other applicable laws. Litigation may be necessary to obtain relief in accordance with these remedies. Such litigation may be protracted and costly. Remedies such as mandamus, specific performance or injunctive relief are equitable remedies, which are subject to the discretion of the court.

Enforcement of Bondholders' rights may be limited by and is subject to the provisions of the Federal Bankruptcy Code, as now or hereafter enacted, and to other laws or legal or equitable principles which may affect the enforcement of creditors' rights. The Pennsylvania Intergovernmental Cooperation Authority Act for Cities of the First Class (the "PICA Act") prevents the City from filing a petition for relief under Chapter 9 of the Federal Bankruptcy Code ("Chapter 9") as long as the Pennsylvania Intergovernmental Cooperation Authority has outstanding any bonds issued pursuant to the PICA Act, and if no such bonds were outstanding, requires approval in writing by the Governor of the Commonwealth for a filing under Chapter 9 by the City. See Appendix IV - "CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA - Pennsylvania Intergovernmental Cooperation Authority."

The filing of a petition under Chapter 9 operates as an automatic stay of the commencement or continuation of any judicial or other proceeding against the debtor or its property. However, a petition filed under Chapter 9 does not operate as a stay of application of pledged special revenues to the payment of indebtedness secured by such revenues. Special revenues include receipts derived from the ownership or operation of systems that are used to provide utility services and the proceeds from borrowing to finance such systems. The Federal Bankruptcy Code further provides that special revenues acquired by the debtor after the commencement of a Chapter 9 case shall remain subject to any lien resulting from any security agreement entered into by the debtor before the commencement of the case. However, the lien on special revenues derived from a system will be subject to the payment of the necessary operating expenses of that system. Therefore, Project Revenues acquired by the City after the filing of a Chapter 9 petition will remain subject to the lien of the General Ordinance in favor of the Bondholders, but will be subject to the payment of the Water and Wastewater Systems' necessary operating expenses as determined by the City. The Federal Bankruptcy Code also provides that a transfer of property of a debtor to or for the benefit of a bondholder, on account of such bond, may not be avoided as a preferential transfer.

Unless the debtor consents or the plan proposed under Chapter 9 so provides, the bankruptcy court may not interfere with any of the property or revenues of a Chapter 9 debtor or with such debtor's use or enjoyment of any income-producing property. Accordingly, if the City decided to use Bond proceeds, the Project Revenues or the Water and Wastewater Funds pledged for the benefit of the Bondholders for other than Water Department purposes, a bankruptcy court would not have the power to interfere with that decision. Even if a bankruptcy court had such power, the court, in the exercise of its equitable powers, could refuse to require the City to use Bond proceeds, the Project Revenues and the Water and Wastewater Funds to pay Bondholders.

The debtor may file a plan for the adjustment of its debts which may include provisions modifying or altering the rights of creditors generally, or any class of them, secured or unsecured. The plan, when confirmed by the court, binds all creditors which have had notice or knowledge of the plan and discharges all claims against the debtor provided for in the plan. No plan may be confirmed unless certain conditions are met, among which are that the plan is in the best interests of creditors, is feasible and has been accepted by each class of claims impaired thereunder. Even if the plan is not so accepted, it may be confirmed if the court finds that the plan is fair and equitable with respect to each class of non-accepting creditors impaired thereunder and does not discriminate unfairly. Thus, under the above described "cram-down" provisions of the Federal Bankruptcy Code, a plan of adjustment could be imposed on the Bondholders that would give them less than their anticipated rate of interest on the Bonds or possibly even less than a full return of their principal, and/or extend the time for payment of principal of or interest on the Bonds.

The foregoing references to the Federal Bankruptcy Code should not be construed as implying that the City expects to resort to the provisions of such statute or that, if it did, any proposed restructuring would include a dilution of the sources of payment of and security for the Bonds.

## **THE WATER DEPARTMENT**

### **General**

The Water Department was established by the City pursuant to the Charter with the power and duty to operate, maintain, repair and improve the City's Water and Wastewater Systems. The Charter requires the Water Department to fix and regulate rates and charges for supplying water and for wastewater treatment service in accordance with standards established by City Council. Such standards must enable the City to realize from rates and charges an amount at least equal to operating expenses and debt service charges on any debt incurred or to be incurred for the Water and Wastewater Systems, and proportionate charges for all services performed for the Water Department by all officers, departments,

boards or commissions of the City. See “RATES” below. The Charter also authorizes the Water Department, with the authorization of City Council, to enter into contracts for supplying water service and sewer and sewage disposal service to users outside the limits of the City.

The operations of the Water Department are accounted for in the Water Fund, which is an enterprise fund of the City. The Water Fund is an accounting convention established pursuant to the Charter for the purpose of accounting for the assets, liabilities, revenues, expenses and rate covenant compliance on a legally enacted basis for the Water and Wastewater Systems. See Appendix I – “FINANCIAL STATEMENTS OF THE WATER FUND FOR FISCAL YEARS ENDED JUNE 30, 2000 AND 1999” hereto.

The Water and Wastewater Funds are funds required by the General Ordinance to be established and maintained with the Fiscal Agent for so long as the Bonds are outstanding for the purpose of segregating Bond proceeds and Project Revenues from other funds of the City not held exclusively for Water Department purposes.

### **Administration**

The Water Department is managed by a Commissioner appointed by the Managing Director of the City with the approval of the Mayor. The Commissioner appoints deputies with the approval of the City’s Managing Director; substantially all other employees of the Water Department are appointed under the provisions of the City’s Civil Service Regulations.

The City’s Department of Revenue performs all functions relating to meter reading, customer accounts and collections for the Water Department through the Water Revenue Bureau. The Department of Revenue and the Water Revenue Bureau are under the direction of the Director of Finance. The Director of Finance, as the chief financial, accounting and budget officer of the City, has overall responsibility for the fiscal administration of all City departments, including the Water Department. Audits of all City departments, including the Water Department, are performed annually by the Office of the City Controller. The Law Department of the City, headed by the City Solicitor, handles all legal matters affecting the Water Department.

The following are brief biographical descriptions of the Commissioner, his deputies and the senior management of the Water Department:

**Kumar Kishinchand** was appointed Water Commissioner in January 1992. He is a registered professional engineer and holds a B.S. degree in metallurgical engineering from the University of Maryland. Mr. Kishinchand has served in a variety of positions in government and industry encompassing research and development. Since joining the Water Department in 1968, he has served in increasingly responsible management positions, including Deputy Commissioner, General Manager of the Operations Division and General Manager of the Planning and Engineering Division. From March 2000 to July 2001, Mr. Kishinchand served as the interim President and Chief Executive Officer of the Philadelphia Gas Works reporting to the Philadelphia Facilities Management Corporation Board. He returned to the Water Department in July 2001. Commissioner Kishinchand serves on the Board of Directors of the Association of Metropolitan Sewerage Agencies and is a past President of that organization.

**Bernard Brunwasser** was appointed Deputy Water Commissioner in August 1999 after serving as General Manager of the Finance Division since January 1989. He holds a B.A. degree from the Pennsylvania State University and has attended Temple University’s School of Public Administration. Since joining the Water Department in 1970, Mr. Brunwasser has held a number of increasingly responsible administrative and managerial positions in both the Operations and Finance Division. He

currently serves on the American Water Works Association's Finance, Accounting and Management Controls Sub-committee of the Management Division.

**David A. Katz** was appointed Deputy Water Commissioner in June 2001, managing the Water Department's Environmental Policy and Planning efforts. Previously, Mr. Katz had served as Divisional Deputy City Solicitor. He had been with the City's Law Department since 1987 and had served as the General Counsel to the Water Department since April 1992. He holds a B.S. in Economics from the Wharton School, University of Pennsylvania and a J.D. from the Washington College of Law, American University. Prior to joining the Law Department, Mr. Katz served in a variety of public and private legal positions.

**Susan K. Lior** was appointed Deputy Water Commissioner in May 1996. She is a registered professional engineer and holds a B.S. degree from the University of New York, Oswego and a M.S.E. degree from the University of South Florida. Ms. Lior is responsible for managing the Water Department's information systems and technology developments, heading the utility's Information Science and Technology Division. Prior to joining the Water Department, Ms. Lior held a variety of private and public sector positions of increasing project and managerial responsibility. As a consultant, she had previously worked with the Water Department and had participated in development and procurement of various operations-based information systems since 1984; including its computerized maintenance management, capital planning, and geographic information systems.

**Richard E. Roy** was appointed Deputy Water Commissioner in January 1992. He is principally responsible for managing the Water Department's Operations Division. He received a B.S. in Civil Engineering from Worcester Polytechnic Institute and began his employment with the Water Department in 1968. Since his initial appointment, Mr. Roy has held a number of increasingly responsible engineering and managerial positions including service as the manager of the Water Pollution Abatement Program, which included responsibility for the design and construction of the three large wastewater treatment plants. Mr. Roy served as Acting Water Commissioner from March 2000 to July 2001 while Kumar Kishinchand served as President and CEO of the Philadelphia Gas Works. He has also served as manager of the Construction Branch in the Planning and Engineering Division.

**Joseph S. Clare, III** was appointed Administrative Services Director and Assistant General Manager of Finance and Administration in September 1998. Previously, Mr. Clare served as Accounting Manager and Contracts Audit Supervisor for the Water Department since 1987. He also previously served as a Deputy Commissioner in the Department of Public Property. Mr. Clare is a Certified Public Accountant and received B.S. and M.B.A. degrees in Accounting Control and Finance from Drexel University.

**J. Barry Davis** was appointed Divisional Deputy City Solicitor and General Counsel to the Philadelphia Water Department in July 2001. He has served as a City Solicitor in the City's Law Department, Water Division, since 1991. He holds a B.A. from Pennsylvania State University, a M.S. in Urban Affairs and Planning from Hunter College, and a J.D. from Temple University. Prior to joining the Law Department, Mr. Davis managed utility and energy projects in the private sector and for non-profit agencies.

**Lorin Fields** was appointed General Manager of the Human Resources Division in March, 1999. He holds a B.A. degree from the Pennsylvania State University and an M.B.A. from LaSalle University. He was, most recently, the manager of the Division's Human Resources Unit. Prior to that he held a variety of human resources positions in the Water Department and the City of Philadelphia's Personnel Department.

**Denise Garrett** was appointed Assistant Finance Director in charge of the Water Revenue Bureau in February 1994. Previously, she served as Acting Chief of the Water Revenue Bureau. Ms.

Garrett has been with the City since 1981, holding management positions of increasing responsibility. Ms. Garrett has extensive experience in the financial industries, having worked in the banking and credit fields. Ms. Garrett attended LaSalle College, majoring in Finance and has completed course work at the University of Pennsylvania, Wharton School and Fels Center of Government.

**Ed Grusheski** was appointed General Manager of the Public Affairs Division in May, 1999. He holds a Bachelor of Science in Foreign Service from Georgetown University and an M.A. in American Civilization from the University of Pennsylvania. Mr. Grusheski joined the Water Department in 1988 as Director of the Water Works Interpretive Center, a project of the Public Affairs Division. He currently serves on several committees including the Pennsylvania Department of Environmental Protection's Coastal Zone Management Steering Committee and is a board member of the Partnership of the Delaware Estuary.

**Thomas J. Kulesza**, Acting General Manager of Planning and Engineering since January 1992, is a registered professional engineer and holds a B.S. degree in Chemical Engineering and an M.S. in Water Resources Engineering from Villanova University, and an M.B.A. from Temple University. He has held a number of progressively responsible positions since joining the Water Department in 1968, including Chief of the Industrial Waste Unit, Manager of the Water Treatment Plants and Manager of the Wastewater Treatment Plants. Prior to joining the Water Department, Mr. Kulesza served as an Engineer in the Philadelphia Health Department's Air Management Services Division.

## **Personnel**

As of September 30, 2001, the Water Department employed approximately 2,127 persons, of whom 1,749 are represented by District Council 33 and 204, by District Council 47, both of the American Federation of State, County and Municipal Employees. The Water Department's upper management, supervisory and senior engineering and administrative personnel are not eligible for union membership. There are approximately 236 employees in the Water Revenue Bureau of the Revenue Department whose positions are funded by the Water Department. Union representation in the Water Revenue Bureau parallels that of the Water Department.

The City has entered into collective bargaining agreements with District Councils 33 and 47, effective July 1, 2000 and which will terminate on June 30, 2004.

## **Relationship to the City**

The Water Department was established by the City pursuant to the Charter as one of the City's ten operating departments. As such, the Water Department reports to the Office of the Managing Director. The Water Department relies on other City departments and agencies for support of its operations. Five of these departments receive a direct appropriation from the Water Department's operating budget at the beginning of each fiscal year to fund the support services to be rendered to the Water Department in such fiscal year. These five departments are the Revenue Department (Water Revenue Bureau) for meter reading, billing and collection services; the Law Department for legal services; the Department of Public Property for the rental of office space; the Office of Fleet Management for vehicle acquisition and maintenance; and the Mayor's Office of Information Services for computer support services.

Thirteen City departments and agencies, including the Revenue Department and the Department of Public Property, provide additional services to the Water Department during the year for which they are paid at the close of each fiscal year. These additional services include purchasing of services, supplies and equipment by the Procurement Department; telephone and other communication services by the Public Property Department; street repairs by the Streets Department; disbursements and cash management by the Director of Finance; and auditing services by the Office of the City Controller.



In addition, the City is the largest customer of the Water Department. For Fiscal Year 2000, the City paid \$20,032,868 to the Water Department, which represented 5.0% of the Water Department's total revenues for that year. For Fiscal Year 2001, the City's charges owed to the Water Department are \$14,920,881, which represents 3.6% of projected total revenues. Projections contained in the Engineering Report forecast that the City's annual projected charges to be paid to the Water Department are \$17,710,000 for Fiscal Year 2002. City payments to the Water Fund are made as of the close of each Fiscal Year.

The total interdepartmental charges paid by the Water Department to the General Fund of the City for Fiscal Year 2000 were \$50,946,362. Of this amount, \$41,173,698 was disbursed on a direct appropriation basis throughout Fiscal Year 2000 and \$9,772,664 was disbursed at the close of the fiscal year for the remaining interdepartmental charges. Total interdepartmental charges to be paid by the Water Department to the General Fund of the City for Fiscal Year 2001 are \$51,276,991. The Engineering Report projects interdepartmental charges to rise from \$47,871,000 in Fiscal Year 2002 to \$56,124,000 in Fiscal Year 2007.

## **The Water System**

The Water System provides water to the City, which comprises approximately a 130 square mile service area. In addition, the Water Department has contracted to provide up to 35 million gallons per day ("MGD") of water to Bucks County Water and Sewer Authority pursuant to an agreement with that authority. The population served by the Water System was approximately 1,672,000 as of the 2000 census, of which 1,518,000 were in the City and 154,000 were in Bucks County. Current projections on which the Engineering Report is based assume that the total population in the present service area will stabilize at approximately those levels for the remainder of this decade. As of September 2001, the Water System served approximately 475,000 retail customer accounts through 3,300 miles of mains and provided fire protection through more than 27,800 fire hydrants. In addition, there were, as of August 2001, 13,959 water/wastewater accounts in non-service status due to service shutoffs for non-payment.

The City obtains approximately 60% of its water from the Delaware River and the balance from the Schuylkill River. The City is currently authorized by applicable regulatory authorities to withdraw up to 390 MGD from the Delaware River and up to 258 MGD from the Schuylkill River. Water treatment is provided by the Samuel S. Baxter Plant on the Delaware River and by the Belmont and Queen Lane Plants on the Schuylkill River. The combined rated capacity of these plants is 540 MGD, and their combined maximum capacity is 683 MGD. The storage capacity for treated and untreated water in the combined plant and distribution system totals 1,065 million gallons ("MG"). In Fiscal Year 2001, the Water System produced 98,623 MG of water at an average rate of 270.2 MGD. The maximum daily water production requirement experienced by the Water System in Fiscal Year 2001 was 308 MG and occurred on June 28, 2001.

The water provided by the Water System meets all physical, chemical, radiological and bacteriological water quality standards established by the United States Environmental Protection Agency ("EPA") under the Safe Drinking Water Act and by the Pennsylvania Department of Environmental Protection ("PaDEP"). The Water Department is aware of recent proposed and planned state and federal regulations relating to drinking water quality and has initiated research and monitoring efforts with respect to the content and status of these regulations so that it will be able to comply with such regulations when adopted.

The EPA has promulgated two sister rules, the Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Stage 1 Disinfectant/Disinfection By-Product Rule (D/DBP), both of which take effect January 1, 2002. The Water Department fully anticipates complying with these rules and has implemented the following improvements at its treatment facilities. Several major changes contribute to their confidence: the introduction of pH control systems, moving and adding chlorine application points,

renovation of several flocculation basins, the rebuilding of several filters and the installation of on-line turbidimeters for each filter. These major projects are supported by many smaller ancillary projects that make these changes effective.

The Water Department continues to conduct pilot scale investigations to enable it to respond to upcoming regulations and to investigate effects of proposed process changes. The initial phase of the pilot plant study was conducted to investigate changing the coagulant dose, the pH of coagulation and point of chlorination. This work was completed and integrated into the current water treatment process, as mentioned above.

The pilot plant research continued with the investigation of the practicality of using ozone to inactivate *Cryptosporidium oocysts*. The conclusions from this extensive phase indicates that ozonation for inactivation is very expensive. The cost is estimated at \$100 million, plus \$40 million in contingency for re-pumping. Faced with few alternatives, research continues into how to integrate ozone into the design of the water treatment plants.

Fortunately new industry information has been released that an alternate treatment technology is available for inactivation of *Cryptosporidium*. Researchers have found that low levels of ultraviolet (UV) light tie up certain portions of the protozoan DNA, thus preventing them from replicating. This renders the *Cryptosporidium oocysts* non-infective. With this news, the Water Department changed its research course to investigate ozone for ancillary benefits instead of *Cryptosporidium* inactivation. Although the Water Department continues to conduct UV research on inactivation through its participation in an AWWARF sponsored project, data from water operations, and from source water assessment seem to indicate that the Water Department will be able to meet regulations relative to *Cryptosporidium* without ozone or UV inactivation.

The Water Department is also investigating the biostability of its distributed water and how it controls it. That project is entitled the biodegradable organic matter (“BOM”) project. BOM is important since upcoming federal regulations will regulate the DBPs relative to location within the distribution system. The biological stability of the water becomes important because it dictates the amount of chlorine used to suppress biological activity within its distribution system. The more stable a utility can make its water, the less chlorine it needs and the fewer locations it will have with higher DBPs.

The Water Department continues to participate in the Partnership for Safe Water (“PFSW”). The PFSW is a national, joint program of the EPA and the water industry. The Water Department has completed several phases of that program and also continues to improve its filter performance. The filter effluent turbidity is less than 0.1 ntu, which is three times lower than the new standard of 0.3 ntu. This, in combination with a multibarrier approach, guards against outbreaks of water contamination. The Water Department continues to operate within guidelines that are far more rigorous than Commonwealth or federal law require.

An additional example of this “more rigorous than required” approach is the Water Department’s Microbial Communication Plan. This plan describes what communication will be taken at each level of treatment so that the multibarrier system is always enforced and that appropriate personnel are notified of actions taken. This also includes notification and involvement from the primary agency (PaDEP). It is important to note that these efforts are all for events that are not covered by regulations (sub-regulatory events).

The Water Department has been a participant in the development of drought management plans, which allocate Delaware River Basin water resources during drought periods among jurisdictions dependent on the Delaware River for water supply. These plans have been used to effectively manage drought emergencies declared in the past and are expected to adequately address future drought emergencies. In addition, the City is able to draw water supply from both the Schuylkill and the

Delaware River systems and is not therefore dependent on a single source of supply. See Appendix II – “ENGINEERING REPORT”.

### **Capital Facilities Assessment Program**

The Philadelphia Water Department is developing a comprehensive assessment program for its water, wastewater, pumping, and biosolids recycling facilities to proactively address future capital funding requirements. The program is called The Capital Facilities Assessment Program (“CFAP”) and its intention is to complement the established maintenance program at each facility by instituting a framework for the periodic assessment of major infrastructure. The Water Department initiated the program by assessing the physical condition of three selected pilot facilities: Queen Lane Water Treatment Plant, Southeast Water Pollution Control Plant, and Lardners Point Water Pumping Station. These facilities serve as the template on which the remaining Water Department facilities will be modeled. This initial assessment gave the Water Department the physical condition, re-inspection schedule and inspection methodology for each infrastructure asset. All of this information is organized and documented in the Water Department’s computerized maintenance management software program, which will aid the plant managers in scheduling O&M and capital inspections.

As inspections are completed, a condition history of each infrastructure asset is created and subsequently updated with each re-inspection. CFAP enables the Water Department to gather detailed knowledge about the condition of its capital assets. This assists the plant manager’s decisions in maximizing preventive maintenance, minimizing emergency capital expenditure and planning into the future for capital outlay. The CFAP pilot facilities completion date is 2002. Afterward, the remaining Water Department facilities will be phased into CFAP with full implementation achieved in 2006.

### **The Wastewater System**

The Wastewater System service area totals 360 square miles, of which 130 square miles are in the City and 230 square miles are in suburban areas. Service to suburban areas is provided under agreements with adjacent municipalities and municipal authorities which generally require delivery of wastewater to the Wastewater System. The population served by the Wastewater System was approximately 2,218,000 as of the 1995 estimated census, of which 1,518,000 were in the City and 700,000 were in the suburbs. Current projections on which the Engineering Report is based assume that the total population in the present service area will stabilize at approximately those levels for the remainder of this decade. As of August 2001, the Wastewater System served approximately 475,000 retail customer accounts.

The Wastewater System consists of three water pollution control plants (“WPCPs”), 16 pumping stations, approximately 2,960 miles of sewers, and a centralized solids handling facility. The Wastewater System is divided into three drainage districts (Northeast, Southeast and Southwest).

The federal Water Pollution Control Act, as amended (the “Clean Water Act”), provides for the restoration and maintenance of the chemical, physical and biological integrity of the nation’s waters. To that end, the Clean Water Act establishes the National Pollution Discharge Elimination System (“NPDES”), a permit system administered by EPA in conjunction with the states. EPA has delegated the NPDES program for the Commonwealth to the PaDEP. The treatment portion of the Wastewater System is subject to the requirements of the Clean Water Act and the conditions set forth in the NPDES permit applicable to each of the WPCPs. In addition, the City is subject to regulation by PaDEP, which exercises regulatory authority over municipal sewage treatment operations, and to regulation by the Delaware River Basin Commission (“DRBC”), which exercises regulatory authority over withdrawals from and discharges into the Delaware and Schuylkill Rivers. Current NPDES permits for the Northeast, Southeast and Southwest WPCPs were issued on July 7, 2000, became effective on August 1, 2000 and will remain in effect for a five-year period. These new permits with PaDEP provide flexibility to treat additional flows resulting from efforts to control combined sewer overflows.

The Clean Water Act requires that publicly owned treatment works such as the treatment portions of the Wastewater System achieve levels of secondary treatment as defined in the Clean Water Act, or where applicable, more stringent levels of treatment required to meet water quality standards established pursuant to any Commonwealth or federal law or regulation. By order of the DRBC issued in 1969, the City is required to achieve effluent limitations which are considered more stringent than those required to achieve secondary treatment levels as defined in the Clean Water Act.

The three WPCPs have maintained their high levels of treatment such that they have been recognized by awards from the Association of Metropolitan Sewerage Agencies (AMSA). The Southwest WPCP received a Platinum Award for zero NPDES permit violations for five consecutive years for the period of 1995 through 1999. Northeast WPCP received its third consecutive Gold Award (zero NPDES permit violations) for calendar year 1999 and Southeast WPCP received a Silver Award (less than five NPDES permit violations) in calendar year 1999. All three WPCPs received Gold Awards for their performance in calendar year 2000.

While the three WPCPs have continued their high levels of performance, the costs of operating them have been contained. Further optimization in the use of treatment chemicals, electrical load shedding and improved maintenance management practices have all contributed to this cost containment.

The wastewater improvement program has had the effect of significantly improving the water quality of the Delaware River, thereby fostering the public and private development of the riverfront for commercial, residential and recreational uses.

Biosolids Treatment and Utilization. The City is required by federal and Commonwealth law, administered by EPA and PaDEP, respectively, to treat and dispose of biosolids captured during wastewater treatment at the City's WPCPs. Biosolids from the three WPCPs are treated at the Biosolids Recycling Center ("BRC"). The BRC contains a dewatering station and a compost facility which together process biosolids for a variety of uses, including garden and horticultural uses, use on farmlands and recreation sites, and reclamation of strip mines. Improvements to the BRC include a comprehensive upgrade to centrifuge dewatering equipment to accomplish a reduction in the mass of biosolids materials, installation of an automatic temperature monitoring system for the composting process, construction of a vehicle wash system, and construction of a modified system for aeration of composting biosolids.

The Water Department operates the BRC under permits and orders issued by PaDEP. On September 22, 1997, the Water Department purchased a surety bond in the amount of \$6,142,235.35 to meet the Commonwealth's bonding requirements for re-permitting of the BRC under the Pennsylvania Municipal Waste Management Regulations (published April 8, 1988). With this bonding issue resolved, PaDEP has issued a waste processing permit to the BRC. The Water Department has operated the BRC fully within the boundaries of its permitted processing area and has had no excess inventory of biosolids products.

As part of a comprehensive study of air emissions, the Water Department has developed plans for major changes to the aeration system for one of the six composting corridors, including new pipes, valves and controls. The new blower system is expected to reduce by 70% the potential quantity of odorous and volatile organic emissions occurring during composting. This program of emissions control addresses a major area of concern expressed by the PaDEP in its review of the Water Department's application for an operating permit.

The Water Department's program for biosolids disposition consists of various land-based applications conducted in accordance with requirements of PaDEP and other jurisdictions where biosolids products are applied. In 1998, the EPA recognized the Water Department with a Special National Award for "sustained excellence in mine land reclamation using biosolids." The Water Department has all other permits and orders from PaDEP, the New Jersey Department of Environmental Protection and the

Maryland Department of the Environment necessary to ensure complete disposition of its biosolids products. The Water Department has permits or approvals for the agricultural utilization of biosolids at over 40 farms. These approvals are given through Chapter 275 provisions of the April 9, 1988 Pennsylvania Municipal Waste Management regulation, and through General Permit No. PAG 080004 under amended regulations of January 27, 1997. The Water Department also has coverage of its compost distribution program under the General Permit for Beneficial Use of Exceptional Quality Sewage Sludge by Land Application (PAG-07). Regulations governing biosolids use were published by the New Jersey Department of Environmental Protection on May 5, 1998, and the Water Department received approval from that state in 2000, opening a new market for biosolids compost recycling. The Water Department also received approval from the Maryland Department of the Environment to sell its biosolids cake for use on Maryland farmland.

The Water Department accomplished significant reductions in personnel and operating expenses at the BRC. Operating budget expenditures for Fiscal Year 2001 for the Biosolids Recycling Center are estimated to be \$15.0 million, or less than half of the expenditures experienced in Fiscal Year 1993. Improvements in centrifuge equipment, resulting in a 30% reduction in the mass of biosolids, and a shift to less costly utilization programs are in part responsible for efficiencies in operations. Based on an evaluation of unit costs for processing and disposal, the Water Department has eliminated one shift of compost production operations, and assigned 70 operators, supervisors and support staff to vacant positions outside the Biosolids Management Unit. Significant competition among private-sector companies offering biosolids disposal or application services has caused a significant reduction of unit costs, by as much as 50%, and has permitted increased use of non-composting applications for biosolids.

The Water Department remains committed to the production and marketing of its biosolids compost as its most environmentally responsible and socially acceptable approach to biosolids management. The five year program calls for steady production of the high value screened compost. The Water Department is focused on ensuring a consistently good quality compost product for sale in the Delaware Valley, and employs a staff agronomist for compost quality control. A concession contract for compost marketing is held by a marketing company which purchases compost for \$5.00 per ton from the Water Department.

The Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act ("Act 101") requires the City to adopt and implement a plan approved by PaDEP for the processing and disposal of municipal waste generated within its boundaries. The biosolids generated by the WPCPs constitute municipal waste within the meaning of Act 101. The Water Department's program for disposition of biosolids is part of the City's Act 101 plan.

On February 19, 1993, EPA published the final 40 CFR Part 503 regulations (the "Part 503 Regulations") pertaining to the disposal of biosolids, including standards for land applications. The Part 503 Regulations require, among other things, initiation of record keeping and monitoring by July 20, 1993, and full compliance with technical standards by February 19, 1994. These regulations are self-implementing and directly enforceable, meaning EPA can initiate enforcement actions for non-compliance even in the absence of EPA's issuance of permits under the NPDES permitting program. The Water Department initiated in June 1993 all record keeping and monitoring requirements required by the Part 503 Regulations. Further, the Water Department believes full compliance with technical standards is currently being achieved, including standards for pollutant concentrations, pathogen reduction and vector attraction reduction required by the Part 503 Regulations. No significant additional operating expenses for the Water Department's biosolids recycling facilities are expected as a consequence of the Part 503 Regulations.

The Water Department has been active in national and regional biosolids programs. The Water Department has been affiliated with the National Biosolids Partnership (NBP). The NBP is a collaboration of the Water Environment Federation and the Association of Metropolitan Sewerage

Agencies, with support of the U.S. Environmental Protection Agency. It is sponsoring an initiative called the Environmental Management System for Biosolids, which includes a Code of Good Practice, a National Manual of Good Practice, an EMS Guidance Manual and a Third Party Auditing program. The Water Department is a pilot agency testing this new system, which promises to help biosolids recycling gain increased public support. The Water Department is also a founding member of the Mid-Atlantic Biosolids Association, a regional group of biosolids producers and users that was formed in 1999 to increase professionalism, to support regionally-relevant research, and to promote public acceptance.

Source Water Protection Program. The Water Department's Office of Watersheds Source Water Protection Program (see below, "Office of Watersheds") is conducting a source water assessment survey of the Schuylkill River watershed, a 130 mile stretch of river encompassing 2,000 square miles of area and parts of 11 counties. The assessment is being funded through a grant provided by PaDEP to define sources of contamination that impose greater treatment challenges to water suppliers in the watershed. Source water assessments are required for all waterways, which are drinking water sources, by the federal 1996 Safe Drinking Water Act amendments. The Schuylkill River provides drinking water to 52 surface water intakes (water withdrawal locations for water suppliers). The Philadelphia Water Department is partnering with the Philadelphia Suburban Water Company and the Pennsylvania American Water Company to facilitate the data collection on this three-year project.

The potential sources of contamination are numerous in an agricultural and urban watershed like the Schuylkill River watershed. Point sources (pipes and facilities which directly empty their wastes into the river) have been identified in the watershed and will be evaluated to determine pollution characteristics and their effects on the overall water quality of the river. Non-point sources (pollution which is carried by rainwater runoff over the land into the river) of contamination are also numerous and are harder to quantify and address. These sources include: farms, acid mine drainage, junk and tire yards, golf courses and paved streets. Public and stakeholder participation will greatly assist this important step in identifying and abating pollution challenges.

This project will involve: extensive surveys throughout the entire watershed (via land and river) to assist in the generation of Geographical Information System (GIS) mapping of land use and contamination sources; water supplier and stakeholder interviews; public and stakeholder meetings; historical and up-to-date water quality analyses; modeling of water quality information; and the generation of progress and summary reports.

The goals of the project include:

- The establishment of stakeholder pollution prevention partnerships.
- The establishment of long-range watershed protection plans.
- The coordination of regulatory initiatives in the watershed (Clean Water Act, Safe Drinking Water Act, etc.).
- The improvement of Schuylkill River water quality and the maintenance of safe drinking water supplies.
- Sustaining a natural, scenic resource.

A similar assessment will begin shortly for the Delaware River watershed.

Office of Watersheds. The Philadelphia Water Department's Office of Watersheds, created by the Water Department in Fiscal Year 1999, is working to achieve viable and measurable improvements to the region's waterways by implementing planning and management strategies that foster good science,

public involvement and fiscal responsibility. Its goal is to meet regulatory requirements while enhancing the health and aesthetics of the environment. The Office of Watersheds has been charged with the mission of integrating traditionally separate tasked programs, including Philadelphia's Combined Sewer Overflow (CSO) program, the Stormwater Management Program, and its Source Water Protection Program, to maximize the resources allocated to these programs and to ensure the comprehensive achievement of each of their goals. The Office of Watersheds organization is composed of staff from the Water Department's planning and research, collector systems, laboratory services, and other key function groups, allowing the newly established organization to combine resources to realize the common goal of watershed protection. The Office of Watersheds is working to formulate watershed management plans for the City's receiving waters through the establishment of watershed partnerships. The partnerships act as a forum for participating members to work together to develop a watershed strategy that meets state and federal regulatory requirements but that also embraces the environmental/public sensitive approach to improve stream water quality and quality of life in communities. The Water Department has implemented an approach to water quality management that seeks to reduce water pollution from all sources in a manner that is based on measurable results, be it improvements to the dissolved oxygen and fecal coliform levels of the stream, or streambank restoration and the addition of riparian buffers to the adjoining park land, or a mixture of both. These improvements translate into a fair and equitable distribution of the costs related to pollution abatement and achieving water quality goals. The Water Department has also successfully engaged urban and suburban communities to explore inter-regional cooperation based on an understanding of the impact of land use and human activities on water quality.

Combined Sewer Overflow Program. The NPDES permits require the Water Department to implement a combined sewer overflow program. In older sections of the City, both wastewater and storm water are conveyed in one pipe to the sewage treatment plant. This is known as a combined system. Combined systems were designed so that during dry weather all wastewater is conveyed to the sewage treatment plant. However, during certain rain events, the additional storm water exceeds the capacity of the collection system and/or wastewater treatment plant. Therefore, during these rain events, the combined system was designed to discharge, or overflow, the excess storm water/wastewater mix directly to local waterways. The Water Department has 178 combined sewer overflow ("CSO") points in its collection system.

The purpose of the CSO program was to first minimize the total discharge from these CSOs and second to ensure that these CSO discharges did not impair water quality. The Water Department's NPDES permit requires the minimization of CSO discharges through the implementation of a Nine Minimum Controls Program ("NMCP"). The NMCP requires minimization of overflows by examining and determining how these areas could be modified to reduce the number and/or severity of the CSO discharge. These Nine Minimum Controls are: (1) maximizing in-system storage; (2) modifying the pretreatment program; (3) maximizing the flow to the wastewater treatment plants; (4) eliminating dry weather overflow; (5) eliminating solids and floatables; (6) pollution prevention; (7) monitoring and reporting; (8) public notification; and (9) operation and maintenance. The Water Department developed its NMCP which has been reviewed and approved by PaDEP.

The second purpose of the CSO program was to ensure that CSO discharges did not impair water quality. Pursuant to its permit, the Water Department submitted a Long Term Control Plan ("LTCP") to PaDEP by its due date of January 22, 1997, stating how the Water Department planned to achieve this goal. The LTCP called for a combination of capital projects and watershed based planning initiatives. On September 28, 1998, PaDEP issued a letter approving the Water Department's LTCP subject to certain conditions and/or clarifications specified in their letter. Under the Water Department's cost-effective approach, substantially all of the LTCP's estimated \$48 million in capital projects can be managed within projected capital improvement program funding levels.

Storm Water Management. The Water Department delivers many of the City's storm water management services, including maintenance of the City's 619 miles of separate storm sewers, 1,599 miles of combined sewers, and approximately 90,000 storm water inlets. In recent years, changes in work practices and investment in new equipment have enabled the Water Department to steadily increase the number of inlets cleaned annually from 47,391 in Fiscal Year 1995 to 92,423 in Fiscal Year 2001.

In 1987, the Clean Water Act was amended to address discharges from municipal separate storm sewer systems. Municipal separate storm sewer systems collect storm water from homes, businesses, streets, and other sources and convey it directly to rivers and creeks without treatment. Cities whose separate storm sewer systems serve a population of over 100,000 were required under these amendments to obtain a NPDES permit for their discharges to the maximum extent practicable.

PaDEP issued the City its initial storm water permit on September 29, 1995, effective for five years. The permit requires the City to implement four management programs to reduce the discharge of pollutants from its municipal separate storm sewer systems. The management programs require the City to reduce pollution from (1) commercial and residential areas; (2) residential illicit connections; (3) municipal landfills and waste treatment, disposal and recovery facilities; and (4) construction sites.

On June 19, 1997, the City was served by private citizens with a 60-day notice of intent to sue letter under Section 505 of the Clean Water Act alleging that it has violated its permit by, inter alia, failing to (1) spend \$200,000 per year to abate illicit connections; (2) file quarterly reports; (3) establish priority rankings for abating illicit connections; (4) provide loan money for the abatement of residential illicit connections; (5) promote public reporting of dry weather illicit discharges; and (6) increase its maintenance by 20% to prevent infiltration from municipal sanitary sewers to municipal separate storm sewer systems. The City, PaDEP and the private citizens settled this matter without litigation pursuant to a Consent Order and Agreement entered into on June 30, 1998. Pursuant to the Consent Order and Agreement the City will take the following actions: (1) hire four crews to locate improper cross connections; (2) inspect at least 2500 homes per year for cross connections; (3) bear all costs in repairing the cross connection if it is a residential property; and (4) abate all cross connections within 120 days after they have been identified. The entry of the Consent Order and Agreement settles all claims related to the City's compliance with its Storm Water permit. Compliance with the Consent Order and Agreement will not have a material financial impact on the Water Department's operations.

The initial 5 year NPDES Phase I storm water permit issued in 1995 was scheduled to expire in September, 2000. The Water Department applied for a new permit in March, 2000 as required. At this time, the Pennsylvania Department of Environmental Protection has chosen to administratively extend the initial permit rather than issue a new one. The reason for the delay is so that the state can evaluate the new federal Phase II stormwater regulations which will impact most of the surrounding suburban communities starting in 2003 and ensure that there is consistency between the various municipal storm water permits. All of the programs put in place as a result of the initial permit and subsequent Consent Order and Agreement are being continued accordingly.

Clean Air Act. The federal Clean Air Act ("CAA"), as amended, sets forth requirements for the regulation of certain air emissions. In January 1994, PA DEP published regulations pursuant to the CAA's mandates for the control of Volatile Organic Compounds ("VOC") and Nitrogen Oxides ("NO<sub>x</sub>") emissions from major stationary sources. The Northeast WPCP and the Biosolids Recycling Center/Southwest WPCP complex were found to be a major source of VOC and NO<sub>x</sub> emissions, while the Southeast WPCP is a Natural Minor source. The Office of Philadelphia Air Management Services ("AMS") has issued the Water Department a Title V State Operating Permit for the NE and BRC/SW facilities on June 1, 2001. The State's Odor Emission Limitation Regulations are included as part of these permits. To date, for 2001, AMS has issued one odor violation at the Northeast facility and two odor violations at the BRC/SW facility. The Water Department has worked closely with AMS in developing their Odor Response Plan (which is part of the permit) and this plan is implemented whenever odors are



detected. The Water Department continues to operate its facilities in a manner that maximizes treatment while minimizing odors.

The CAA also has a Risk Management Program component which requires a Risk Management Plan (“RMP”) for all facilities where regulated substances (chlorine, ammonia, methane) are stored above designated levels. The RMPs are designed to minimize the impact of a process accident on the surrounding community. In June 1999, the Water Department submitted to EPA, their RMPs for covered facilities – the Northeast, Southwest and Southeast WPCPs, and the Baxter and Belmont WTPs. The Water Department is in the process of eliminating the use of chlorine at its Northeast and Southeast facilities, with sodium hypochlorite becoming the replacement disinfectant (this has already taken place at Southwest).

### **Capital Improvement Program**

The Charter requires the City Council to adopt annually, on or prior to May 31, a capital budget for the ensuing fiscal year and a capital program showing the capital expenditures planned for that year and each of the five ensuing fiscal years. The Capital Improvement Program of the Water Department for the Fiscal Years 2003 to 2007 and the Water Department 2002 capital budget described below were approved by City Council as part of the City’s capital program and capital budget on March 22, 2001. Additionally, the City may change the elements of the Capital Improvement Program from time to time and may change the proposed financing schedule reflected in the Capital Improvement Program.

The Water Department’s Planning and Engineering Division is continuing to implement improvements to the Water Department’s capital program planning process to better anticipate future needs for the infrastructure maintenance and upgrades in an evolving regulatory environment. To that end, the Water Department has initiated a new sewer assessment program to evaluate the Water Department’s collector systems infrastructure. This project includes cleaning and video inspection of approximately 150 miles of the sewer system. With this information the Water Department will evaluate the current Collector System Capital Program and make recommendations for changes accordingly. Another capital program initiative includes a second generation of the Water Department’s capital program information system. The new computerized system will be browser based using state of the art computer technology. This system will link to numerous Water Department programs and databases including the Geographic Information System, the Water Main Break database, the vendor payment system, and the plant maintenance management system. The users will also be able to access, at their workstation, all record drawings, as-builts, and historic information pertaining to a specific section of the city, block, or project, electronically. The system is being built for long term use through open architecture design, expandability, and programming flexibility. In addition, the Water Department is continuing its use of pilot plants to explore new and alternative treatment technologies. The Water Department has expanded the preventive and predictive maintenance management system to all seven treatment plants, has initiated new procedures to plan and track long term capital projects within the treatment plants, and has improved better communication through reporting capabilities and tracking of projects between the Operating and Engineering Divisions. Through these initiatives and capital planning tools, both the level and volatility of the Water Department’s long-term capital expenditures can be more cost-effectively managed.

The following table sets forth major elements of the Water Department’s adopted Capital Improvement Program for Fiscal Years 2002 through 2007.

**Fiscal Years 2002-2007  
Capital Improvement Program<sup>(1)</sup>**

|  | <u>Fiscal Year 2002<br/>(Budgeted)</u> | <u>Fiscal Year 2003-2007<br/>(Planned)</u> |
|--|--|--|
| Engineering and Administration             | \$ 17,508,000                          | \$ 87,540,000                              |
| Improvements to Treatment Plants           | \$ 42,000,000                          | \$250,000,000                              |
| Conveyance System (new and reconstruction) | \$ 25,090,000                          | \$125,450,000                              |
| Collector System (new and reconstruction)  | \$ 26,120,000                          | \$130,600,000                              |
| Storm Flood Relief                         | \$ 6,000,000                           | \$ 20,000,000                              |
| Vehicles                                   | \$ 4,000,000                           | \$ 20,000,000                              |
| Large Meter Replacement                    | <u>\$ 300,000</u>                      | <u>\$ 1,500,000</u>                        |
| Total                                      | \$121,018,000                          | \$635,090,000                              |

---

(1) Table reflects the Water Department's adopted six-year Capital Improvement Program.

**Future Financings**

Approximately 70% of the costs of the Capital Improvement Program are expected to be funded with the proceeds of debt to be incurred during the six-year period. The City expects most of such debt to be in the form of Water and Wastewater Revenue Bonds issued under the Act and the General Ordinance. A portion of the debt may be evidenced by loans to the City from Pennvest, established by the Commonwealth to provide low interest cost financing for water and wastewater projects within the Commonwealth. Such loans are expected to be evidenced by water and wastewater revenue bonds. Any additional loans received by the Water Department from Pennvest will reduce the amount of future Water and Wastewater Revenue Bonds to be issued.

The Capital Improvement Program provides for the issuance of revenue bonds in the anticipated principal amount of \$355,000,000 on or after January 1, 2005. The emphasis of the Capital Improvement Program is on the renewal and replacement of the water conveyance and sewage collection systems along with improvements to the water and wastewater treatment plants. See Appendix II – "ENGINEERING REPORT."

**Commonwealth Grants**

Pursuant to the Pennsylvania Contribution By Commonwealth to Cost of Abating Pollution Act ("Act 339"), the Water Department receives annual grants from the Commonwealth toward the costs of operating, maintaining, repairing and replacing the Wastewater System equal to 2% of the total cost for the acquisition and construction of eligible wastewater treatment facilities. Costs funded by EPA grants and other reimbursed federal and Commonwealth grant programs are deducted in the calculation of the costs of acquisition and construction. Applications for Act 339 payments are filed on a calendar year basis, and are included in non-operating revenue of the Water Department.

The Act 339 grant is administered by PaDEP. For each calendar year grant application, the PaDEP makes a determination as to the total grant dollars it will pay the Water Department based upon what it deems to be 2% of the Water Department's eligible Act 339 costs. The Water Department received \$7,913,859 in Act 339 grants for calendar year 2000.

Calendar year 1999 payments were approved on June 14, 2000 for the Southeast Water Pollution Control Plant and on June 9, 2000 for the Northeast Water Pollution Control Plant and on July 6, 2000 for

the Southwest Water Pollution Control Plant. Payments totaling \$7,996,287 for these grants were received on August 8, August 10 and November 2, 2000.

Calendar year 2000 payments were approved on March 6, 2001 for the Southeast Water Pollution Control Plant and on June 5, 2001 for the Northeast Water Pollution Control Plant and on May 14, 2001 for the Southwest Water Pollution Control Plant. Payments totaling \$7,913,859 for these grants were received on August 2, 2001.

There are currently no appeals or determinations before Pennsylvania's Department of Environmental Protection for review or adjudication.

### **Enhanced Security**

In light of the events of September 11, 2001, when terrorists struck the United States, the Water Department has taken steps to improve the security of the City's water supply and all other major Water Department facilities and assets. These steps have been taken in close coordination with the City's Managing Director's Office and all other appropriate city agencies and departments. On October 11, 2001, the City of Philadelphia reopened its Emergency Operations Center, designed to permit city emergency personnel to respond quickly to any major event through specialized computer and communications equipment. This center is staffed around the clock by officials from the Police, Fire, and Health Departments, as well as the Water Department and additional city agencies. The Center has a backup 911 system in addition to computer terminals that are able to communicate with all City departments and agencies. The Water Department is also in contact with federal, state, and local law enforcement and emergency personnel. Details of the enhanced security measures already taken and those presently under consideration presently cannot be disclosed.

It should be noted that the Water Department had an extensive water quality protection and security plan in place prior to the events of September 11, 2001. All finished water basins are completely covered; all plants are fenced in and topped by barbed wire; gates are secured; and the Water Department continues to draw and conduct nearly one thousand tests on water samples from various locations each day.

**HISTORICAL COMPARATIVE STATEMENT OF REVENUES AND EXPENSES  
(LEGALLY ENACTED BASIS)**

The comparative statement of revenues and expenses set forth below has been derived from the financial statements of the Water Fund of the City. The City Controller has examined and expressed opinions on the general purpose financial statements of The City of Philadelphia contained in the City's Comprehensive Annual Financial Report for Fiscal Years 1997, 1998, 1999 and 2000. Fiscal Year 2001 figures have been estimated by the Water Department. See also, Appendix IV – "CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA – City Financial Procedures – Independent Audit and Opinion of the City Controller." The City Controller has not expressed an opinion on the unaudited statements for the Water Fund contained in Appendix I to this Official Statement or on any other financial data contained in this Official Statement. Such unaudited statements for the Water Fund have been prepared by the Water Department and approved by the Director of Finance.

The City Controller has not participated in the preparation of this Official Statement nor in the preparation of the budget estimates and projections and cash flow statements and forecasts set forth in various tables contained in this Official Statement. The City Controller expresses no opinion with respect to any of the data contained in this Official Statement.

In signing this Official Statement, the City Controller has not participated in the preparation of Appendix II - "ENGINEERING REPORT" and takes no position at this time regarding the information contained therein, including future rate increases.

For purposes of rate setting, calculating rate covenant compliance and debt service coverage and budgeting, the Water Fund accounts are maintained on the modified accrual basis of accounting, also referred to as the "Legally Enacted Basis." Under this basis, revenues are recorded on a receipts basis except revenues from other governments and interest, which are accrued as earned. A 100% reserve is provided for all doubtful non-governmental receivables. With respect to governmental receivables, a 100% reserve is provided when the City has reason to believe that no appropriation has been made by the other government to finance these receivables. The Water Department does not account for payments for water and sewer service from its governmental contract customers as "revenues from other governments."

Expenditures are recognized and recorded as expenses at the time they are paid or encumbered, except expenditures for debt service and lease payments which are recorded when paid. A reserve is maintained for encumbrances at the close of the fiscal year intended to be sufficient to liquidate estimated obligations incurred in such fiscal year.

## COMPARATIVE STATEMENT OF REVENUES AND EXPENSES

(Legally Enacted Basis)

This statement should be read in conjunction  
with the financial statements in Appendix I hereto  
Fiscal Year Ended June 30 (in Thousands)

|   | <u>1996(a)</u> | <u>1997(a)</u> | <u>1998(a)</u> | <u>1999(a)(b)</u> | <u>2000(a)(b)</u> | <u>2001 est.</u> |
|---|----------------|----------------|----------------|-------------------|-------------------|------------------|
| <b>Operating Revenues:</b>  |                |                |                |                   |                   |                  |
| 1. Sales to General customers   | \$296,191      | \$287,777      | \$285,048      | \$289,504         | \$294,937         | \$295,480        |
| 2. Service (Sales) to Other Municipalities  | 25,390         | 26,247         | 25,732         | 26,194            | 26,132            | 25,355           |
| 3. Services to Other Philadelphia City Agencies<br>(Includes Fire Protection)                               | 19,805         | 19,071         | 23,172         | 19,309            | 20,033            | 15,265           |
| 4. Private Fire Connections   | 668            | 834            | 818            | 654               | 662               | 693              |
| 5. Industrial Sewage Surcharge  | 6,191          | 4,810          | 5,185          | 6,305             | 7,195             | 7,077            |
| 6. Other Operating Revenue  | <u>3,897</u>   | <u>3,548</u>   | <u>3,158</u>   | <u>2,744</u>      | <u>2,339</u>      | <u>4,194</u>     |
| 7. Subtotals – Water  | 116,234        | 111,783        | 116,984        | 116,233           | 119,752           | 118,342          |
| 8. Wastewater   | <u>235,908</u> | <u>230,504</u> | <u>226,129</u> | <u>228,477</u>    | <u>231,546</u>    | <u>229,722</u>   |
| 9. Total Operating Revenue  | <u>352,142</u> | <u>342,287</u> | <u>343,113</u> | <u>344,710</u>    | <u>351,298</u>    | <u>348,064</u>   |
| <b>Operating Expenses:(c)</b>   |                |                |                |                   |                   |                  |
| 10. Water   | 84,709         | 89,748         | 90,966         | 92,966            | 95,583            | 96,251           |
| 11. Wastewater  | <u>122,299</u> | <u>124,642</u> | <u>125,163</u> | <u>128,249</u>    | <u>130,996</u>    | <u>127,588</u>   |
| 12. Total Operating Expenses  | <u>207,008</u> | <u>214,390</u> | <u>216,129</u> | <u>220,775</u>    | <u>226,579</u>    | <u>223,839</u>   |
| 13. Excess of Operating Revenues over Operating Expenses  | 145,134        | 127,897        | 126,984        | 123,935           | 124,719           | 124,225          |
| <b>Non-Operating Revenues:</b>  |                |                |                |                   |                   |                  |
| 14. Interest on Investments   | 16,772         | 20,240         | 33,774         | 26,570            | 21,629            | 25,832           |
| 15. Reimbursements – Pennsylvania Clean Streams Grant   | 6,292          | 18,730         | 17,572         | 8,327             | 4,708             | 7,996            |
| 16. Other Non-Operating Revenues  | <u>2,464</u>   | <u>2,704</u>   | <u>4,197</u>   | <u>1,184</u>      | <u>2,970</u>      | <u>4,729</u>     |
| 17. Total Non-Operating Revenues  | <u>25,528</u>  | <u>41,674</u>  | <u>55,543</u>  | <u>36,081</u>     | <u>29,307</u>     | <u>38,557</u>    |
| 18. Excess of Revenues over Expenses before Interest Expenses and Principal Payments on Bonded Indebtedness | 170,662        | 169,571        | 182,527        | 160,016           | 154,026           | 162,782          |
| <b>Interest Expenses:</b>   |                |                |                |                   |                   |                  |
| 19. General Obligation Bonds  | 842            | 646            | 458            | 301               | 168               | 71               |
| 20. Revenue Bonds   | 81,321         | 83,115         | 80,834         | 96,779            | 89,298            | 88,690           |
| 21. Less: Interest Capitalized  |                |                |                |                   |                   |                  |
| 22. Pennvest Loan   | <u>1,145</u>   | <u>1,135</u>   | <u>1,125</u>   | <u>1,227</u>      | <u>1,267</u>      | <u>132</u>       |
| 23. Total Interest Expenses   | <u>83,308</u>  | <u>84,896</u>  | <u>82,417</u>  | <u>98,307</u>     | <u>90,733</u>     | <u>88,893</u>    |
| 24. Excess of Revenues over Expenses Exclusive of Debt Principal Payments                                   | 87,354         | 84,675         | 100,110        | 61,709            | 63,293            | 73,889           |
| 25. Add: Unencumbered Funds Available for Appropriation at Beginning of Fiscal Year                         | 0              | 0              | 0              | 0                 | 0                 | 0                |
| 26. Deduct: Debt Principal Payments on Bonded Indebtedness During Fiscal Year                               | <u>44,175</u>  | <u>40,993</u>  | <u>48,320</u>  | <u>51,404</u>     | <u>58,999</u>     | <u>61,500</u>    |
| 27. Net Unapplied Project Revenues  | 43,179         | 43,682         | 51,790         | 10,305            | 4,294             | 12,389           |
| 28. Deduct: Funds Transferred to General Fund   | 4,138          | 4,138          | 4,138          | 4,138             | 4,138             | 4,138            |
| 29. Deduct: Funds Transferred to Residual Fund  |                |                | 1,876          | 6,023             | 6,592             | 6,974            |
| 30. Deduct: Funds Transferred to Capital Account  | <u>14,751</u>  | <u>14,797</u>  | <u>15,048</u>  | <u>15,560</u>     | <u>15,923</u>     | <u>15,868</u>    |
| 31. Transfer (TO)/FROM The Rate Stabilization Fund  | (24,290)       | (20,781)       | (30,728)       | 15,416            | 22,359            | 39,369           |
| 32. Unencumbered Funds Available for Appropriation at End of Fiscal Year                                    | <u>\$0</u>     | <u>\$0</u>     | <u>\$0</u>     | <u>\$0</u>        | <u>\$0</u>        | <u>\$0</u>       |
| <b>Debt Service Coverage Ratio:</b>   |                |                |                |                   |                   |                  |
| 33. Total Debt Service  | 1.03           | 1.03           | 1.04           | 1.06              | 1.06              | 1.07             |
| 34. Revenue Bond Debt Service   | 1.21           | 1.20           | 1.20           | 1.20              | 1.20              | 1.20             |

(a) Amounts are reclassifications of the amounts shown in the statement of Revenues, Expenditures and Changes in Fund Balance – Budget and Actual for the Fiscal Years ended June 30, 1996, 1997, 1998, 1999 and 2000 (Legally Enacted Basis) which appear in the Comprehensive Annual Financial Reports of the City of Philadelphia for such years.

(b) See Appendix I, “Financial Statements of the Water Fund for Fiscal Years Ended June 30, 2000 and 1999.

(c) Included in Operating Expenses are the direct payments of interdepartmental charges:

Fiscal Year 1996 includes \$46,925,000.

Fiscal Year 1997 includes \$50,807,000.

Fiscal Year 1998 includes \$45,095,000.

Fiscal Year 1999 includes \$44,472,000.

Fiscal Year 2000 includes \$44,949,000.

Fiscal Year 2001 includes \$45,533,000.

## **Analysis of Comparative Statement of Revenues and Expenses**

### Fiscal Year 1997

*Revenues.* Total Revenues increased by \$6.3 million to \$384 million primarily due to the receipt of \$18.7 million in Clean Stream Grant funds from the Commonwealth for calendar years 1993, 1994 and 1995. During Fiscal Year 1997, the Water Department agreed to reimburse the Philadelphia Housing Authority the sum of \$3.8 million for rescinding the 25% billing discount formerly given to this non-profit agency in settlement of a challenge to the procedures used to reduce this discount in 1994.

*Expenses.* Fiscal Year 1997 Operating Expenses increased by \$7.3 million to \$214.4 million due to the payment of a one-time \$2 million payroll bonus, \$1.4 million increase in fringe benefit outlays, an additional \$3 million for wastewater plant digester cleanings, as well as additions to the computerized maintenance management system.

In Fiscal Year 1997, a deposit of \$20.8 million was made to the Rate Stabilization Fund from the Revenue Account and a payment of \$14,797,318 was made to the Capital Account from the Revenue Account.

### Fiscal Year 1998

*Revenues.* Total Fiscal Year 1998 revenues were \$398.7 million due in part to the receipt of \$17.6 million in Clean Streams Grant funds of which \$10 million represented settlement of previous claims. Interest Income for the year rose to \$33.8 million, an increase of \$13.4 million from the previous year.

*Expenses.* Fiscal Year 1998 Operating Expenses increased by \$1.7 million because of annualized wage and benefit increases, the development of a new billing system and additional costs related to treatment chemicals, fire hydrants and water main valves.

A deposit of \$30.7 million was made to the Rate Stabilization Fund from the Revenue Account and a deposit to the Capital Account from the Revenue Account of \$15,048,295 for Fiscal Year 1998.

### Fiscal Year 1999

*Revenues.* Total Revenues decreased by \$2.4 million due to a drop of \$7.2 million in interest income, and a reduction of \$9.2 million in Clean Stream Grant funds from the Commonwealth to reflect the dropping out of settlement claims paid by the Commonwealth the previous year. Offsetting these reductions was a transfer of \$15.4 million from the Rate Stabilization Fund. A discount that the Water Department had provided to the Philadelphia Housing Authority was restructured by City Council in June 1998, which had the result of increasing revenues by more than \$1.5 million in Fiscal Year 1999.

*Expenses.* Total Fiscal Year 1999 expenses decreased by \$1.6 million because there was no deposit to the Rate Stabilization Fund. Debt service payments increased by \$19 million as a result of the \$350 million revenue bond sale of November 1997. The Water Department continued to benefit from electric rate reductions begun in Fiscal Year 1996 and the implementation of additional energy conservation initiatives.

In Fiscal Year 1999, as stated above, a withdrawal of \$15.4 million was made from the Rate Stabilization Fund to the Revenue Account. Deposits of \$15.6 million to the Capital Account and \$6 million to the Residual Account were made from the Revenue Account.

## Fiscal Year 2000

*Revenues.* Total Revenues grew by \$6.8 million over the previous year in part due to a larger transfer from the Rate Stabilization Fund to the Reserve Account. Improved revenue collection efforts, combined with the increased use of automatic meter reading, increased Operating Revenues. Non-Operating Revenue were lower due to reduced interest earnings and a one-time payback of \$3.6 million to the Commonwealth of Pennsylvania for past overpayments to the Department of Clean Streams Grants.

*Expenses.* Total Expenses grew by \$4.8 million due to the funding of employee wage increases and increased funding of employee wage increases and increased funding of the Water Department's HELP Loan Program, which provides interest free loans to homeowners for the repair or replacement of their private water service lines, or sewer laterals.

In Fiscal Year 2000, a withdrawal of \$22.4 million was made from the Rate Stabilization Fund and deposited to the Revenue Account. Deposits of \$15.9 million to the Capital Account and \$6.6 million to the Residual Account were made from the Revenue Account.

## Fiscal Year 2001

*Revenues.* Total revenues increased by \$7.4 million over the previous year due to the receipt of a larger deposit from the Rate Stabilization Fund and an increase of \$3.3 million in payments from the Commonwealth of Pennsylvania under Act 339. These increases offset a reduction in receipts for water and wastewater services from the General Fund due to a correction to past over-billings.

*Expenses.* Total Fiscal Year 2001 expenses increased by \$5.8 million over the previous year due primarily to the funding of employee wage increases.

In Fiscal Year 2001, a withdrawal of \$39.4 million was made from the Rate Stabilization Fund and deposited to the Revenue Account. Deposits of \$15.9 million to the Capital Account and \$7.0 million to the Residual Account were made from the Revenue Account.

## **Development of Adopted Fiscal Year 2002 Budget**

The Charter requires City Council to adopt a balanced operating budget for the fiscal year on or before May 31 of each year. The Mayor has traditionally presented his operating budget proposal to City Council on or about March 31 of each year, but has presented the operating budget in January in each of the last nine fiscal years. The Mayor's operating budget is developed from proposed budgets submitted by the various departments of the City, including the Water Department. The Water Department began preparation of its operating budget for Fiscal Year 2002 in September 2000, when all divisions were supplied with documentation to complete and return to the Finance Division reflecting their budgetary requests for the next fiscal year. The Water Department has developed and installed a computerized budgeting system to enable each division to prepare budget requests based on historical and current operating experience. Divisional budget proposals setting forth estimated obligations for the ensuing fiscal year were submitted to the Finance Division in October 2000. Revenue estimates are prepared by the Water Revenue Bureau under the direction of the City's Finance Department and the Water Department. The Water Commissioner reviewed all divisional budget proposals and the Water Revenue Bureau's budget with the assistance of the Finance Division and submitted the Water Department's proposed budget to the City's Budget Bureau and the City's Managing Director in December 2000. The Mayor approved the Water Department's Operating Budget and included it as part of his proposed budget to City Council on January 23, 2001. After holding public hearings, City Council adopted the Fiscal Year 2002 budget on March 22, 2001.

Under the City's "Legally Enacted Basis" of accounting, a reservation of funds is established, for the estimated maximum contract limit, prior to the initiation of the delivery of services, supplies or equipment for each contract. This reservation of fund or "encumbrance" accounting system requires that the Water Department budget a slightly higher level of funds than its actual annual requirements might be under a cash basis of accounting, since the actual costs of each contract cannot be determined, in many instances, until after the fiscal year has ended. These "excess" encumbered funds are returned to the fund balance when the contract is liquidated, usually early in the ensuing fiscal year. The Fiscal Year 2002 Operating Budget includes an adjustment to the estimated fund balance at the close of Fiscal Year 2002 due to cancellation of commitments encumbered and not expended in Fiscal Year 2002.

### **Revenues, Expenses and Debt Service**

The firm of Black & Veatch Corporation has been retained by the City to provide an engineering assessment of the current condition, use and maintenance of the Water and Wastewater Systems and to report on the financial feasibility of the issuance of the Bonds. The full text of the Engineering Report prepared by Black & Veatch Corporation is included as Appendix II to this Official Statement.

In its report, Black & Veatch Corporation has concluded that:

"Based on actual and estimated future annual financial operations of the Water and Wastewater Systems, it is our opinion that the Water and Wastewater Systems will yield pledged Project Revenues (including projected revenue increases indicated in this report resulting from rate increases which may be imposed after an administrative process without further legislation) over the amortization period of the Bonds sufficient to meet the payment or deposit requirements of:

- a. All expenses of operation, maintenance, repair and replacement of the Water and Wastewater Systems;
- b. All reserve funds required to be established out of such Project Revenues;
- c. The principal or redemption price of and interest on all Bonds, as the same shall become due and payable, for which such Project Revenues are pledged; and
- d. The Rate Covenants set forth in Section 5.01 of the General Ordinance."

The following table, prepared by Black & Veatch Corporation, as a part of Appendix II - "ENGINEERING REPORT" presents a statement of projected revenues and revenue requirements for Water and Wastewater Systems operations for Fiscal Year 2002 through Fiscal Year 2007, under the stipulations of the General Ordinance.



TABLE A

**PROJECTED REVENUE AND REVENUE REQUIREMENTS  
WATER DEPARTMENT OPERATIONS 1989 GENERAL ORDINANCE  
(in thousands of dollars)**

| Line No.                             | Fiscal Year Ending June 30                    |                 |                 |                 |                |                |                |
|--------------------------------------|---|-----------------|-----------------|-----------------|----------------|----------------|----------------|
|                                      | FY 2002                                       | FY 2003         | FY 2004         | FY 2005         | FY 2006        | FY 2007        |                |
| <b>OPERATING REVENUE</b>             |   |                 |                 |                 |                |                |                |
| 1.                                   | Water Service – Existing Rates                | \$114,443       | \$130,738       | \$143,717       | \$142,877      | \$142,000      | \$141,124      |
| 2.                                   | Wastewater Service – Existing Rates           | <u>225,667</u>  | <u>240,862</u>  | <u>253,245</u>  | <u>253,642</u> | <u>252,508</u> | <u>251,372</u> |
| 3.                                   | Total Service Revenue – Existing Rates        | 340,110         | 371,600         | 396,962         | 396,519        | 394,508        | 392,496        |
| Additional Service Revenue Required: |   |                 |                 |                 |                |                |                |
|                                      | <u>Year</u>                                   | <u>% Incr.</u>  |                 |                 |                |                |                |
| 4.                                   | FY2005  | 8.00%           |                 | 31,722          | 31,561         | 31,400         |                |
| 5.                                   | FY2006  | 8.00%           |                 |                 | 34,086         | 33,912         |                |
| 6.                                   | FY2007  | 3.00%           |                 |                 |                | 13,734         |                |
| 7.                                   | Total Additional Service Revenue Required     |                 |                 | <u>31,722</u>   | <u>65,647</u>  | <u>79,046</u>  |                |
| 8.                                   | Total Water and Wastewater Service Revenue    | 340,110         | 371,600         | 396,962         | 428,241        | 460,155        | 471,542        |
| 9.                                   | Transfer From (To) Rate Stabilization Fund    | 41,346          | 35,578          | 23,329          | (2,267)        | 999            | (71)           |
| 10.                                  | Other Income (a)                              | <u>35,609</u>   | <u>34,947</u>   | <u>30,333</u>   | <u>31,840</u>  | <u>34,003</u>  | <u>31,258</u>  |
| 11.                                  | Revenues                                      | 417,065         | 442,125         | 450,624         | 457,814        | 495,157        | 502,729        |
| <b>OPERATING EXPENSE</b>             |   |                 |                 |                 |                |                |                |
| 12.                                  | Water and Wastewater Operations               | 191,434         | 198,094         | 204,767         | 210,440        | 216,273        | 222,275        |
| 13.                                  | Direct Interdepartmental Charges              | <u>47,871</u>   | <u>49,746</u>   | <u>51,548</u>   | <u>53,029</u>  | <u>54,554</u>  | <u>56,124</u>  |
| 14.                                  | Total Operating Expense                       | <u>239,305</u>  | <u>247,840</u>  | <u>256,315</u>  | <u>263,469</u> | <u>270,827</u> | <u>278,399</u> |
| 15.                                  | NET REVENUES AFTER OPERATIONS                 | 177,760         | 194,285         | 194,309         | 194,345        | 224,330        | 224,330        |
| <b>DEBT SERVICE</b>                  |   |                 |                 |                 |                |                |                |
| Senior Debt Service                  |   |                 |                 |                 |                |                |                |
| Revenue Bonds                        |   |                 |                 |                 |                |                |                |
| 16.                                  | Outstanding Bonds                             | 147,749         | 147,770         | 147,789         | 147,820        | 148,381        | 148,381        |
| 17.                                  | Pennvest Parity Loans                         | 384             | 384             | 384             | 384            | 384            | 384            |
| 18.                                  | Series 2001 Bonds (b)                         |                 | 13,750          | 13,750          | 13,750         | 13,750         | 13,750         |
| 19.                                  | Projected Future Bonds (c)                    |                 |                 |                 |                | <u>24,426</u>  | <u>24,426</u>  |
| 20.                                  | Total Senior Debt Service                     | 148,133         | 161,904         | 161,923         | 161,954        | 186,941        | 186,941        |
| 21.                                  | TOTAL DEBT SERVICE COVERAGE (L15/L20)         | 1.20x           | 1.20x           | 1.20x           | 1.20x          | 1.20x          | 1.20x          |
| Subordinate Debt Service             |   |                 |                 |                 |                |                |                |
| 22.                                  | Outstanding General Obligation Bonds          | 602             |                 |                 |                |                |                |
| 23.                                  | Pennvest Subordinate Loans                    | <u>1,227</u>    | <u>1,227</u>    | <u>1,227</u>    | <u>1,227</u>   | <u>1,227</u>   | <u>1,227</u>   |
| 24.                                  | Total Subordinate Debt Service                | <u>1,829</u>    | <u>1,227</u>    | <u>1,227</u>    | <u>1,227</u>   | <u>1,227</u>   | <u>1,227</u>   |
| 25.                                  | Total Debt Service on Bonds                   | 149,962         | 163,131         | 163,150         | 163,181        | 188,168        | 188,168        |
| 26.                                  | CAPITAL ACCOUNT DEPOSIT                       | 16,237          | 16,587          | 16,937          | 17,287         | 17,637         | 17,987         |
| 27.                                  | TOTAL COVERAGE (L15/(L25+L26)                 | 1.06x           | 1.08x           | 1.07x           | 1.07x          | 1.09x          | 1.08x          |
| <b>RESIDUAL FUND</b>                 |   |                 |                 |                 |                |                |                |
| 28.                                  | Beginning of Year Balance                     | 22,480          | 14,681          | 9,488           | 5,735          | 3,612          | 4,137          |
| 29.                                  | Interest Income Deposits                      | 640             | 240             | 25              | 0              | 0              | 0              |
| 30.                                  | End of Year Revenue Fund Balance              | 11,561          | 14,567          | 14,222          | 13,877         | 18,525         | 18,175         |
| 31.                                  | Deposit for Transfer to City General Fund (d) | 4,138           | 4,138           | 4,994           | 4,994          | 4,994          | 4,994          |
| 32.                                  | Less: Transfer to Construction Fund           | 20,000          | 20,000          | 18,000          | 16,000         | 18,000         | 18,000         |
| 33.                                  | Less: Transfer to City General Fund           | <u>4,138</u>    | <u>4,138</u>    | <u>4,994</u>    | <u>4,994</u>   | <u>4,994</u>   | <u>4,994</u>   |
| 34.                                  | End of Year Balance                           | 14,681          | 9,488           | 5,735           | 3,612          | 4,137          | 4,312          |
| <b>RATE STABILIZATION FUND</b>       |   |                 |                 |                 |                |                |                |
| 35.                                  | Beginning of Year Balance (e)                 | 103,177         | 61,831          | 26,253          | 2,924          | 5,191          | 4,192          |
| 36.                                  | Deposit From (To) Revenue Fund                | <u>(41,346)</u> | <u>(35,578)</u> | <u>(23,329)</u> | <u>2,267</u>   | <u>(999)</u>   | <u>71</u>      |
| 37.                                  | End of Year Balance                           | 61,831          | 26,253          | 2,924           | 5,191          | 4,192          | 4,263          |

- (a) Includes other operating and non-operating income, including interest income on funds and accounts transferable to the Revenue Fund.
- (b) Based on \$250,000,000 bonds reflecting 5.5% interest, term of 30 years, interest only payments through Fiscal Year 2010, November 2001 sale date, and the first interest payment from system revenues due in Fiscal Year 2003.
- (c) Based on \$355,000,000 bonds reflecting 5.5% interest, term of 30 years, level annual principal and interest payments, January 2005 sale date, and the first principal and interest payments due in Fiscal Year 2006.
- (d) Transfer of interest earnings from the Bond Reserve Account must first go to the Residual Fund as shown in Line 31 to satisfy the requirements for the Transfer to the City General Fund, with the balance going to the Revenue Fund, included in Line 10.
- (e) Excludes an annual interim internal loan of approximately \$45 million from the Rate Stabilization Account to the Revenue Account.

## **RATES**

### **Rate Setting Process**

Under the Charter, the Water Department is empowered and required to establish rates for water and wastewater service, without further authorization of the City Council, at levels which provide sufficient revenue to meet all operating expenses of the water and wastewater systems, including interdepartmental charges for services provided to the Water Department, and debt service requirements on all obligations issued for the Water Department, as well as other specific covenants of the General Ordinance.

The City has covenanted in the General Ordinance that it has authorized the imposition of rates and charges by the Water Department sufficient to comply with the Rate Covenant and that it will not repeal or materially adversely dilute or impair such authorization. See Appendix IV – “CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA.”

The Philadelphia Code requires the Water Department to give written notice to City Council at least 30 days in advance of the filing of notice of any proposed change in water or sewer rates or charges and to submit with such written notice financial, engineering and other data upon which the proposed changes are based. After the filing of the proposed regulations providing for changes in rates or charges with the City’s Department of Records, the Department of Records is required to give public notice that the regulations have been filed and that any person affected by the proposed regulations may request a public hearing before the Water Department and the City Solicitor. Revised rates and charges become effective ten days after filing of a decision by the Water Commissioner at the conclusion of hearings or at any time thereafter, at his discretion.

In August 1992, the Water Department adopted Water Regulation 74 and Sewer Regulation 17, governing the change of water and sewer rates and charges. These regulations provide for appointment of a Hearing Officer, enumeration of the duties of the Hearing Officer, provision of a time frame for various elements of the rate change process, establishment of rules and guidelines for public hearings on proposed rate changes and advertisement thereof, compilation of a hearing record, the Hearing Officer’s report and the Water Commissioner’s Rate Determination.

### **Current Rate Structure**

The City’s general service customers’ water rate consists of a service charge related to the size of the meter, plus a schedule of quantity charges for all water use. The sewer rate is similar in form. On August 24, 2001 the Water Commissioner in his Rate Determination directed that there be a three-phase rate increase. Beginning on September 4, 2001 rates increased an average of approximately 6%. The second and third phases of the increase will take place on July 1 of 2002 and 2003 when rates will increase an average of 7% each year. Increases in fire connection charges are also included in each of the above noted rate changes. For details of the current rate structure, see Table VI-1 of Appendix II – “ENGINEERING REPORT”. In addition, special charges are imposed for processing high-strength wastewater.

No challenges to the City’s rate determinations are currently pending.

The Water Department estimates that a typical customer has a 5/8 inch meter and uses 10.0 thousand cubic feet (Mcf) of water per year, which, based on the current rate schedule, results in an annual charge of \$167.34 for water service and \$317.66 for sewer service, for a total of \$485.00 per year. On July 1, 2002 these charges will increase to \$189.26 for water service and \$315.62 for sewer service,

for a total of \$504.88 annually. Further, on July 1, 2003 a typical customer's bill will increase to \$207.36 for water service and \$306.20 for sewer service, for a total of \$513.56 per year.

In addition to charges for general service customers, which are based on metered water consumption, the Water Department charges the City for water and wastewater service provided to City properties, the cost of operating and maintaining the high-pressure fire system, and the cost of the standard pressure public fire protection. Private protection is also billed at a flat rate varying with the size of the connection. The amounts billed to the City in Fiscal Year 2001 was \$14,920,881. The City is the largest customer of the Water Department, accounting in Fiscal Year 2001 for 3.6% of the Water Department's total revenues. The Water Department projects that the amount billed to the City in Fiscal Year 2002 will be \$17,710,000 which represents 4.3% of total projected revenues. Fiscal Year 2004 payments from the City under then existing rates are estimated to remain stable at \$23,871,000. See Appendix IV – "CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA."

Charges for metered water sales to the Bucks County Water and Sewer Authority (the "Authority") are set under a contract based on the recovery of operating and certain capital costs allocated to the Authority. Payments for water service rendered to the Authority in Fiscal Year 2001 were approximately \$2,560,000. Fiscal Year 2002 payments are projected to be \$2,974,000. The contract for water sales to the Authority expires in 2011.

On June 29, 2000 the Water Department entered into a contract with the Philadelphia Suburban Water Company (PSW) under which the Water Department will provide wholesale water service through to March 1, 2026. This Agreement provides for service through two interconnections – one in Tinicum Township, Delaware County and another in Cheltenham Township, Montgomery County. The Tinicum interconnection allows for an average daily draw of 4.5 MGD and is expected to become operational in November 2001. Under current rates this amount of water will yield annual revenues of approximately \$821,000. The Cheltenham interconnection is expected to become operational in January 2003. PSW can draw up to 2.0 MGD on average per day through this point. Sale of water to PSW will generate a total estimated annual revenue of \$2,449,000 under the adopted rates applicable to Fiscal Year 2004.

Contracts for wastewater treatment service with ten neighboring municipalities and authorities provide for the billing of charges based on operating costs attributable to the volume and strength of wastewater received from each of these customers. Capital costs for the wholesale wastewater customers are recovered by one of two different methods - four contract customers are billed monthly for depreciation and return on investment on allocated wastewater conveyance and treatment facilities, while six contracting entities have made, and continue to make, capital contributions to the Water Department for their allocated share of the investment in facilities related to the provision of service to these customers. Fiscal Year 1999 payments totaled \$23,494,000 for operating expenses, depreciation and return on investment for all ten wholesale wastewater customers. Fiscal Year 2000 payments from these wholesale wastewater customers were \$23,512,000, while Fiscal Year 2001 payments were \$21,455,000. Beginning in late Fiscal Year 2002, the Delaware County Regional Sewer Authority ("DELCORA") is expected to divert approximately 10 MGD of annual average day flow from the Water Department's Southwest WPCP Plant to its own wastewater treatment plant in Delaware County. This is expected to be a permanent diversion with a resultant loss of approximately \$2,000,000 in annual revenue. Capital contributions from wholesale wastewater customers received by the Water Department as of October 1, 2001 have totaled \$69,224,753.

There are currently no disputes between the Water Department and its wholesale water and wastewater customers.

## **Billing and Collections**

The implementation of monthly billing in January 1993 immediately improved on-time collections and resulted in accelerated billings of approximately \$26 million and accelerated collections of approximately \$20 million by June 30, 1993. The improved collection pattern continued through the 1990s, with the collection factor rising from 79.9% in Fiscal 1991 to 85.7% in Fiscal Year 1997, in Fiscal Year 1998, 85.4% in Fiscal 1999, 85.5% in Fiscal Year 2000 and an estimated 85.7% in Fiscal Year 2001. Collections tend to dip each year during the annual winter moratorium on residential service shutoffs, and then rebound in the spring when shutoffs begin again.

Over the past nine years, the Water Department and the Water Revenue Bureau have significantly expanded their level of cooperation. Under the Charter, the Water Revenue Bureau is part of the City's Revenue Department which is under the direction of the Finance Director. Under an agreement reached in 1992, the collection of water and wastewater revenues is jointly administered by the Water Commissioner and a Deputy Finance Director (currently an Assistant Finance Director). Their level of close cooperation has led to the successful implementation of monthly billing, more timely mailing of water and wastewater bills, the transfer of all Water Revenue Bureau personnel, procurement and payroll functions to the Water Department, the contracting out of the collection of aged receivables to private collection agencies, the AMR Program (defined below) and certain other reforms.

In the early 1990s, the Water Revenue Bureau began using outside collection agencies. The collection agencies' responsibilities include the implementation of the Utility Services Tenant's Rights Act ("USTRA") which enables the Water Revenue Bureau to collect payments directly from the tenants when landlords refuse to pay. This program generated \$9.0 million in revenue collections, net of commissions, during Fiscal Year 1999, \$7.9 million in Fiscal Year 2000, and \$5.3 million in Fiscal 2001. Collection agencies are also being utilized to collect on commercial delinquencies, and to locate the addresses of former owners or customers who have moved and left unpaid balances on their water accounts.

In September, 1997, the Water Department and the Water Revenue Bureau began the implementation of the Automatic Meter Reading Program (the "AMR Program") involving the replacement of all residential water meters with new meters equipped with radio transmitter meter reading devices, is the largest and most significant water automatic meter reading endeavor to be implemented in the country. The City entered into a 20-year contract with Itron, Inc. on July 10, 1997 to install and operate water meters equipped with automatic meter reading devices. Installation commenced on schedule on September 11, 1997. The AMR Program consists of a two-year installation period and a subsequent 18-year operations, maintenance and data collection period. After one year of installations, nearly 269,000 or 57% of the eligible meters were replaced with AMR-equipped meters. By August 2001, more than 441,000 had been installed. The installation period of the AMR Program was funded by the Water Department's Capital Improvement Program and the 18-year operations, maintenance and data collection period is being funded under the Water Department's annual operating budget. The Water Department has estimated a more than \$25 million savings/cost benefit to be realized over the entire 20-year life of the AMR Program. However, the expected savings/cost benefits identified are not reflected in either the Water Department's five-year financial planning program nor in the financial projections contained in the Engineering Report. This program has greatly improved the accuracy of billing, which has resulted in fewer billing disputes, which has had a positive effect on customer service and collections. In addition to the increased revenue that results from such billing program improvements, the AMR Program significantly reduced the costs of meter reading and related support.

The Water Department and the Water Revenue Bureau are developing a new Customer Data Information System ("CDIS"). The CDIS is expected to integrate the billing of customers with the

developing automatic meter reading system, the existing collections management system, and a planned interactive voice response telephone system. An important part of the CDIS will include programming that will produce needed financial data. This information will enable the Water Revenue Bureau to determine how and where to concentrate collection efforts based on customer payment patterns, usage, customer type, and the demographics of delinquency. It is anticipated that this new system will come on-line late in 2002.

For a further discussion of the rates charged by the Water Department, see Appendix II – “ENGINEERING REPORT.”

### **Compliance with Rate Covenants**

The Water Department first issued revenue bonds under the Prior Ordinance in Fiscal Year 1974. The General Ordinance, which became effective on August 26, 1993, mandates a coverage ratio of 1.20 for revenue bond debt service and 1.00 for total debt service (in comparison to 1.50 and 1.00 under the Prior Ordinance). While the revenue bond debt service coverage formula under the General Ordinance includes a lower ratio than the Prior Ordinance, it no longer allows prior year fund balances to be rolled over to meet coverage in subsequent years, and does not allow self-generated capital funds to be borrowed to meet the coverage formula. Also, all Water Fund expenditures are included in the coverage formula under the General Ordinance, unlike the coverage formula under the Prior Ordinance in which interdepartmental charges were not counted in calculating senior coverage. Under the coverage formula under the General Ordinance, the Water Department uses the Rate Stabilization Fund to manage coverage to 1.20 each year, with any revenue which would raise coverage over 1.20 deposited into the Rate Stabilization Fund.

In Fiscal Years 1997, 1998, 1999 and 2000, the Water Department met the new bond coverage requirements with revenue bond debt coverage ratios of 1.20 each year, and total debt service coverage ratios of 1.03, 1.04, 1.06 and 1.06, respectively. Net revenues after operating expenses exceeded the amounts necessary to manage the senior debt service coverage requirements in Fiscal Years 1997 and 1998, resulting in large deposits to the Rate Stabilization Fund totaling \$51,509,000. Senior debt coverage requirements for Fiscal Years 1999 and 2000 resulted in drawdowns of monies in the Rate Stabilization Fund of \$15,416,000 and \$22,359,000, respectively. Senior debt coverage for Fiscal Year 2001 will require a drawdown of \$39,368,570 from the Rate Stabilization Fund.

For a summary of revenues, expenses and debt service coverages for Fiscal Years 1996 through 2001, see “HISTORICAL COMPARATIVE STATEMENT OF REVENUES AND EXPENSES (LEGALLY ENACTED BASIS) – Analysis of Comparative Statement of Revenues and Expenses” herein. For a discussion of the Rate Covenant contained in the General Ordinance, see “SECURITY FOR THE BONDS – Rate Covenant” herein.

### **LITIGATION AND CLAIMS**

Claims against the Water Department are paid out of the Water Fund and only secondarily out of the City’s General Fund, in the event cash balances in the Water Fund are insufficient at the time of payment of the claim. The General Fund is then reimbursed by the Water Fund for any such advance. The following discussion concerning litigation and claims, which has been prepared based on information supplied by the Law Department and has been reviewed by the Law Department, relates to litigation and claims against the City chargeable to the Water Fund. A discussion of other litigation affecting the City is set forth under the caption in Appendix IV – “CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA – Litigation.”

Various claims have been asserted against the Water Department and in some cases lawsuits have been initiated; the Water Department may be liable if these claims are reduced to judgment or otherwise settled in a manner requiring payment by the Water Department.

As of June 30, 2001, the City's best estimate of the probable aggregate amount of loss from various claims is \$5,000,000 from the Water Fund. The City's best estimate of the aggregate amount of loss from those claims in which the City believes some amount of loss is reasonably possible is \$5,000,000 from the Water Fund. This represents the City's best estimate of the entire current inventory of such litigation. The City expects that it will take approximately three years to conclude these lawsuits.

The City paid \$4.5 million in Fiscal Year 1997, \$5.3 million in Fiscal Year 1998, \$4.5 million in Fiscal Year 1999, \$4.8 million in Fiscal Year 2000 and \$4.2 million in Fiscal Year 2001. The Water Fund budget for Fiscal Year 2002 includes an appropriation of \$6.5 million for paying claims.

On June 27, 1998, a Consent Decree in the case of *New Jersey Department of Environmental Protection v. Gloucester Environmental Management Services Inc. and City of Philadelphia et al.*, D.N.J., C.A. No. 84-0152, was executed among the State of New Jersey, the United States and certain defendants, including the City concerning the GEMS landfill in Gloucester Township, Camden County, New Jersey. Under the Consent Decree, the City reached an agreement with insurers by which the insurers paid into an escrow account all settlement allocations and reimbursed the City a portion of its expenses related to the litigation. Ancillary agreements concerning the allocation of any eventual cost overruns on the remediation activities have been negotiated among defendants; the prospect of any such future liabilities is considered low, and the City's commitments pursuant to these agreements would be minimal.

The City is the defendant in the case *Waterware Corp. v. City* (Philadelphia County Court of Common Pleas, November Term, 1999, No. 1382). Plaintiff is the prime contractor on the Water Department's Combined Sewer Overflow Monitoring project, which commenced in 1994, and is not yet complete. This suit seeks damages for wrongful default, extra work, and delay damages in connection with the project. The City believes that plaintiff's wrongful default claim is unfounded, because the plaintiff's surety agreed to take over the project without protest, and because the City had good and substantial reasons for its default. Plaintiff's other claims have been unsupported by plaintiff's discovery responses, leading the City to believe that plaintiff may have difficulty supporting its claims at trial. In response to discovery, plaintiff recently submitted its computation of damages in the amount of \$5.5 million. Some items of damage are the responsibility of the surety, while other items of damages are not legally recoverable against the City, limiting the City's potential exposure to significantly less than plaintiff's demand. The City is defending the case vigorously. Trial is scheduled for April 2002.

### **TAX EXEMPTION**

The Internal Revenue Code of 1986, as amended (the "Code") imposes certain requirements that must be met at and subsequent to the issuance and delivery of the Bonds for interest thereon to be and remain excluded from gross income under section 103 of the Code. These requirements include, but are not limited to, requirements relating to the use and expenditure of gross proceeds of the Bonds, yield and other restrictions on investments of gross proceeds, and the arbitrage rebate requirement that certain excess earnings on gross proceeds be rebated to the federal government. Noncompliance with such requirements could cause the interest on the Bonds to be included in gross income for federal income tax purposes retroactive to the date of issue of the Bonds. The City has covenanted to comply with the applicable requirements of the Code.

In the opinion of Duane, Morris & Heckscher, LLP and Mattioni Law Offices, Co-Bond Counsel, under existing law and assuming compliance with the aforementioned covenant, interest on the Bonds is

excluded from gross income under section 103 of the Code. Co-Bond Counsel is also of the opinion that the interest on the Bonds will not be treated as a preference item for purposes of computing the alternative minimum tax. Interest on the Bonds owned by certain corporations will, however, be taken into account in the calculation of adjusted current earnings for purposes of calculating the alternative minimum tax imposed on such corporations. Corporate purchasers of the Bonds should consult their tax advisors concerning the computation of any alternative minimum tax.

The Bonds are initially offered to the public at prices greater than the principal amount thereof payable at maturity. If Bonds are sold at prices in excess of their principal amount (“Premium Bonds”), the excess constitutes amortizable bond premium which, as it amortizes, will reduce the bondholder’s tax basis for the Premium Bonds used to determine, for federal income tax purposes, the amount of gain or loss upon the sale, redemption at maturity, or other disposition of the Premium Bonds. Accordingly, a bondholder of a Premium Bond may have taxable gain from the disposition of the Premium Bond, even though the Premium Bond is sold or disposed of, for a price equal to the bondholder’s original cost of acquiring the Premium Bond. No deduction is allowable for amortizable bond premium. The amortization of bond premium may be taken into account as a reduction in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Bonds. Bondholders of Premium Bonds should consult their own tax advisors with respect to the calculation of the amount of bond premium which will be treated for federal income tax purposes as having amortized for any taxable year (or portion thereof) of the bondholder and with respect to other federal, state and local tax consequences of owning and disposing of the Premium Bonds.

Prospective purchasers of the Bonds should be aware that ownership of, accrual or receipt of interest on (including accrual of original issue discount) or disposition of tax-exempt obligations may have collateral federal income tax consequences for certain taxpayers, including financial institutions, certain subchapter S corporations, United States branches of foreign corporations, property and casualty insurance companies, individual recipients of Social Security or Railroad retirement benefits, taxpayers eligible for the earned income credit and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations. The foregoing is not intended as an exhaustive list of potential tax consequences. Prospective purchasers should consult their tax advisors as to any possible collateral consequences in respect of the Bonds. Co-Bond Counsel expresses no opinion regarding any such collateral consequences.

Co-Bond Counsel has not undertaken to advise in the future whether any events occurring after the date of issuance of the Bonds may affect the tax status of interest on the Bonds. The Internal Revenue Code has been continuously subject to legislative modifications, amendments and revisions and proposals for further changes are regularly submitted by leaders of the legislative and executive branches of the federal government. No representation is made as to the likelihood of such proposals being enacted or if enacted, the effective date of any such legislation and no assurances can be given that such proposals or amendments will not materially and adversely affect the economic value of the Bonds or the tax consequences of ownership of the Bonds.

In the opinion of Co-Bond Counsel, under the laws of the Commonwealth as enacted and construed on the date of issuance of the Bonds, interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax and the Bonds are exempt from personal property taxes in the Commonwealth.

## **NEGOTIABLE INSTRUMENTS**

The Act provides that bonds issued thereunder shall have all the qualities and incidents of securities under the Uniform Commercial Code of the Commonwealth and shall be negotiable instruments.

## **CONSULTING ENGINEER'S REPORT**

The Engineering Report of Black & Veatch Corporation, Kansas City, Missouri, is included in Appendix II of this Official Statement in reliance upon the authority of such firm in engineering and related financial matters.

## **UNDERWRITING**

The Bonds are being purchased by the firms listed on the front cover page of the Official Statement (collectively, the "Underwriters"), at an aggregate underwriters' discount of \$1,822,168.16 from the initial public offering price of the Bonds, plus accrued interest from November 15, 2001 to the date of delivery of the Bonds. The Underwriters will purchase all of the Bonds if any such Bonds are purchased. The obligation of the Underwriters to purchase the Bonds is subject to certain terms and conditions set forth in the purchase contract related to the Bonds.

J.P. Morgan Securities, Incorporated ("JP Morgan") has entered into an agreement with RRZ Public Markets, Inc. pursuant to which JP Morgan will act as an underwriter and distribution agent for RRZ Public Markets, Inc. in connection with the sale of the Bonds.

The initial public offering prices of the Bonds set forth on the inside front cover page hereof may be changed without notice by the Underwriters. The Underwriters may offer and sell Bonds to certain dealers (including dealers depositing Bonds into investment trusts, certain of which may be sponsored or managed by one or more of the Underwriters) and others at prices lower than the offering prices set forth on the inside front cover page hereof.

## **RATINGS**

Moody's Investors Service, Inc. ("Moody's"), Standard & Poor's Ratings Services ("S&P") and Fitch Ratings ("Fitch") have assigned underlying municipal bond ratings of "A3", "A-" and "A-", respectively, to the Bonds. Moody's, S&P and Fitch have assigned their municipal bond ratings of "Aaa," "AAA" and "AAA", respectively, with the understanding that upon delivery of the Bonds, the Bond Insurance Policy insuring payment when due of the principal of and interest on the Bonds will be issued by the Bond Insurer.

Certain information was supplied by the City and the Water Department to the rating agencies to be considered in evaluating the Bonds. Such ratings express only the views of the respective rating agencies and are not a recommendation to buy, sell or hold the Bonds.

Such ratings reflect only the views of such ratings organizations and any desired explanation of the significance of such ratings should be obtained from the rating agency furnishing the same, at the following addresses: Moody's Investors Service, Inc., 99 Church Street, New York, New York 10007; Standard & Poor's Ratings Services, 25 Broadway, New York, New York 10004; and Fitch Ratings, One State Street Plaza, New York, New York 10004. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. There is no assurance such ratings will not be revised downward or withdrawn entirely by the rating agencies, if



in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Bonds.

### **LEGAL MATTERS**

Certain legal matters incident to the authorization, issuance and sale of the Bonds will be passed upon by Duane, Morris & Heckscher LLP and Mattioni Law Offices LTD, both of Philadelphia, Pennsylvania, Co-Bond Counsel. The proposed form of such legal opinion is included herein as Appendix V. Certain legal matters will be passed upon for the City by the City Solicitor. Certain legal matters will be passed upon for the Underwriters by Ballard Spahr Andrews & Ingersoll, LLP and Jettie D. Newkirk, Esquire, both of Philadelphia, Pennsylvania.

### **FINANCIAL ADVISORS**

Fairmount Capital Advisors, Inc. and Phoenix Capital Partners, LLP have served as financial advisors (the "Financial Advisors") to the City with respect to the issuance and sale of the Bonds. The Financial Advisors have assisted in the preparation of this Official Statement and in other matters relating to the planning, structuring and sale of the Bonds by the City.

### **NO LITIGATION OPINION**

Upon the delivery of the Bonds, the City Solicitor will furnish an opinion, in form satisfactory to Co-Bond Counsel and the Underwriters, to the effect, among other things, that to the best of his knowledge after customary inquiry there is no litigation or other legal proceeding pending, or threatened in writing against the City, to restrain or enjoin the issuance or delivery of the Bonds or challenging the validity of the proceedings of the City taken in connection therewith or the pledge or application of any monies provided for the payment of the Bonds, or contesting the powers of the City with respect to any of the foregoing.

### **CERTAIN REFERENCES**

All summaries of the provisions of the Bonds and the security therefor, the Act, the General Ordinance set forth herein and in Appendix III and all summaries and references to other materials not purported to be quoted in full, are only brief outlines of certain provisions thereof and do not constitute complete statements of such documents or provisions. Reference is made hereby to the complete documents relating to such matters for the complete terms and provisions thereof or for the information contained therein. All estimates, assumptions and statistical information contained herein, while taken from sources considered reliable, are not guaranteed. So far as any statements are made in this Official Statement involving matters of opinion, or projections or estimates, whether or not expressly so stated, they are made merely as such and not as representations of fact.

The attached Appendices are integral parts of this Official Statement and should be read in their entirety together with all foregoing statements in this Official Statement.

The agreement between the City and holders of Bonds is fully set forth in the Bonds and the General Ordinance. Neither this Official Statement nor any advertisement for the Bonds is to be construed as constituting an agreement with purchasers of the Bonds.

## **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

Causey, Demgen & Moore Inc., Denver, Colorado, the verification agent, will deliver a report as of the Closing Date of the Bonds verifying the accuracy of (a) the mathematical computation of the adequacy of the Qualified Escrow Securities deposited in the Escrow Fund to pay, when due, maturing principal of redemption price, if any, and interest on the bonds to be refunded; and (b) the mathematical computations supporting the conclusion of Co-Bond Counsel that the Bonds are not “arbitrage bonds” under the Code. Such verification will be based upon certain information supplied by the Underwriters to Causey, Demgen & Moore Inc.

## **CONTINUING DISCLOSURE**

In accordance with the requirements of Rule 15c2-12 (the “Rule”) promulgated by the Securities and Exchange Commission, the City will enter into a continuing disclosure undertaking (the “Continuing Disclosure Agreement”) with the Fiscal Agent for the Bonds which shall constitute a written undertaking for the benefit of the owners of the Bonds, solely to assist the Underwriters in complying with subsection (b)(5) of the Rule. See Appendix VII – “FORM OF CONTINUING DISCLOSURE AGREEMENT” for the detailed provisions of the Continuing Disclosure Agreement.

This Official Statement has been duly executed and delivered by the following officers on behalf of The City of Philadelphia.

THE CITY OF PHILADELPHIA

By: /s/ John F. Street  
John F. Street, Mayor

By: /s/ Jonathan A. Sidel  
Jonathan A. Sidel, City Controller

By: /s/ William R. Thompson  
William R. Thompson, Acting City  
Solicitor

Approved:

/s/ Janice D. Davis  
Janice D. Davis, Director of Finance

**APPENDIX I**

**FINANCIAL STATEMENTS OF THE WATER FUND  
FOR FISCAL YEARS ENDED JUNE 30, 2000 AND 1999**

**APPENDIX II**  
**ENGINEERING REPORT**

**APPENDIX III**

**SUMMARIES OF CERTAIN PROVISIONS OF THE ACT;  
CERTAIN DEFINITIONS AND SUMMARIES OF CERTAIN PROVISION OF  
THE GENERAL ORDINANCE;  
AND CERTAIN COVENANTS OF THE CITY OF PHILADELPHIA FOR THE  
BENEFIT OF THE BOND INSURER**

**APPENDIX IV**

**CERTAIN INFORMATION CONCERNING THE CITY OF PHILADELPHIA**

**APPENDIX V**

**FORM OF OPINION OF CO-BOND COUNSEL**



**APPENDIX VI**

**SPECIMEN MUNICIPAL BOND INSURANCE POLICY**

**APPENDIX VII**

**FORM OF CONTINUING DISCLOSURE AGREEMENT**