NEW MONEY ISSUE – BOOK-ENTRY ONLY

RATINGS: Fitch: A+ (stable)
Moody's: A1 (stable)
S&P: A+ (stable)
(See "RATINGS" herein)

In the opinion of Co-Bond Counsel, interest on the Bonds is excludable from gross income for purposes of federal income tax, assuming continuing compliance with the requirements of the federal tax laws. Interest on the Bonds is not an item of tax preference for purposes of federal alternative minimum tax imposed on individuals. Co-Bond Counsel is also of the opinion that, under the laws of the Commonwealth of Pennsylvania, interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax. See "TAX MATTERS" herein.

$294,810,000
CITY OF PHILADELPHIA, PENNSYLVANIA
Water and Wastewater Revenue Bonds, Series 2022C

Dated: Date of Delivery **Due: as shown on the inside front cover**

Defined Terms All capitalized terms that are not otherwise defined on this cover page have the meanings provided to such terms in this Official Statement.

The Bonds The City of Philadelphia, Pennsylvania, a corporation, body politic and city of the first class existing under the laws of the Commonwealth of Pennsylvania (the "City") is issuing its $294,810,000 Water and Wastewater Revenue Bonds, Series 2022C (the "Bonds") pursuant to (i) the First Class City Revenue Bond Act (the "Act"), and (ii) the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 (as supplemented and amended, collectively referred to as the "General Ordinance").

The Purpose The Bonds are being issued to provide funds to finance (i) capital improvements to the System (hereinafter defined), (ii) a deposit to the Debt Reserve Account of the Sinking Fund and (iii) the costs of issuance relating to the Bonds. See "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" herein. Capitalized terms used but not otherwise defined in this Official Statement have the meanings ascribed to them in APPENDIX II-A hereof.

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 interests in the Bonds purchased. Disbursements of principal, interest or redemption payments are the responsibility of DTC.

Payment and Security The Bonds are special obligations of the City, equally and ratably secured, with the City's outstanding Water and Wastewater Revenue Bonds (other than Subordinated Bonds, of which there are none outstanding on the date hereof) in the aggregate principal amount of $2,435,116,138 (as of June 30, 2022, which does not account for the issuance of the Bonds) issued under the General Ordinance and all Water and Wastewater Revenue Bonds hereafter issued under the General Ordinance (the "Water and Wastewater Revenue Bonds"). All Water and Wastewater Revenue Bonds are secured by a pledge of and security interest in all Project Revenues derived from the City's Water and Wastewater Systems (collectively, the "System") and by monies deposited in the funds and accounts (other than the Rebate Fund) established by the City under the General Ordinance (collectively, the "Water and Wastewater Funds"). Project Revenues means: (i) all rents, rates, fees and charges imposed or charged for connection to, or use or product of or services generated by the System to the ultimate users thereof, (ii) all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, (iii) all subsidies or payments payable by federal, state or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on monies borrowed to finance costs chargeable to the System, (iv) all grants, payments and contributions made in aid or on account of the System exclusive of grants and similar payments and contributions solely in aid of construction and (v) all accounts, contract rights and general intangibles representing the foregoing (collectively referred to as, the "Project Revenues"). See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" herein.

THE BONDS ARE PAYABLE SOLELY FROM PROJECT REVENUES AND MONIES DEPOSITED IN THE WATER AND WASTEWATER FUNDS. THE BONDS ARE SPECIAL 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.

Ordinance No. 171110-A, signed by the Mayor on April 24, 2018, includes certain amendments to the General Ordinance (the "Springing Amendments") that will become effective upon the consent of the holders of at least 67% of Water and Wastewater Revenue Bonds outstanding. See "INTRODUCTORY STATEMENT – Springing Amendments to General Ordinance to Become Effective" herein and APPENDIX II-A and APPENDIX II-B hereof. **By virtue of their purchase, holders of the Bonds will be deemed to have consented to the Springing Amendments. The consent of the holders of 67% of Water and Wastewater Bonds outstanding will be satisfied upon the issuance of the Bonds, thereby rendering the Springing Amendments effective upon such date of issuance.**

Interest Payment Date The Bonds will be dated, and will bear interest from, the date of delivery thereof. Interest on Bonds will be payable semiannually on June 1 and December 1 of each year, commencing on December 1, 2022.

Redemption The Bonds are subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See "THE BONDS – Redemption Provisions" herein.

Tax Exemption For information on certain tax matters relating to the Bonds, see the italicized language at the top of this cover page and "TAX MATTERS" herein.

Delivery Date It is expected that the Bonds will be available for delivery to DTC on August 16, 2022.

This cover page contains information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement, including the Appendices, which are an integral part hereof, to obtain information essential to making an informed investment decision regarding the Bonds.

The Bonds are offered when, as and if issued and delivered to and received by the Underwriters (defined herein), and subject to the legal opinions of Ballard Spahr LLP and Ahmad Zaffarese LLC, both of Philadelphia, Pennsylvania, Co-Bond Counsel. Certain legal matters will be passed upon for the Underwriters by Eckert Seamans Cherin & Mellott, LLC, of Philadelphia, Pennsylvania. Certain other legal matters respecting the Bonds will be passed upon for the City by Greenberg Traurig, LLP and Turner Law, P.C., both of Philadelphia, Pennsylvania, Co-Disclosure Counsel to the City's Water Department. Certain legal matters will be passed upon for the City by the City Solicitor.

RBC Capital Markets, LLC Ramirez & Co., Inc.

AmeriVet Securities Stifel, Nicolaus & Company, Incorporated

The date of this Official Statement is August 9, 2022.

$294,810,000
CITY OF PHILADELPHIA, PENNSYLVANIA
Water and Wastewater Revenue Bonds,
Series 2022C

MATURITY DATES, PRINCIPAL AMOUNTS, INTEREST RATES, YIELDS*, PRICES*, CUSIP†

Maturity Dates (June 1)	Principal Amounts	Interest Rates	Yields	Prices	CUSIP† (717893)
2023	$ 3,020,000	5.000%	1.680%	102.597	X30
2024	10,855,000	5.000	1.760	105.687	X48
2025	8,505,000	5.000	1.810	108.643	X55
2026	7,930,000	5.000	1.900	111.286	X63
2027	8,295,000	5.000	1.970	113.786	X71
2028	6,445,000	5.000	2.140	115.497	X89
2029	6,770,000	5.000	2.260	117.158	X97
2030	7,105,000	5.000	2.370	118.607	Y21
2031	7,465,000	5.000	2.480	119.792	Y39
2032	7,835,000	5.000	2.560	121.010	Y47
2033	8,230,000	5.000	2.730*	119.384*	Y54
2034	8,640,000	5.000	2.880*	117.972*	Y62
2035	9,070,000	5.000	3.030*	116.579*	Y70
2036	9,525,000	5.000	3.130*	115.661*	Y88
2037	8,670,000	5.000	3.200*	115.023*	Y96
2038	9,105,000	5.000	3.250*	114.571*	Z20
2039	9,560,000	5.000	3.310*	114.030*	Z38
2040	10,035,000	5.000	3.350*	113.672*	Z46
2041	10,540,000	5.000	3.420*	113.048*	Z53
2042	11,060,000	5.000	3.440*	112.870*	Z61

$64,205,000, 5.500% Term Bonds due June 1, 2047, Yield: 3.590%*, Price: 115.645*, CUSIP† 717893 Z79

$61,945,000, 5.500% Term Bonds due June 1, 2052, Yield: 3.670%*, Price: 114.932*, CUSIP† 717893 Z87

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*Yield and price to first optional redemption date of June 1, 2032.

† The above CUSIP (Committee on Uniform Securities Identification Procedures) numbers have been assigned by an organization not affiliated with the City or the Underwriters, and such parties are not responsible for the selection or use of the CUSIP numbers. The CUSIP numbers are included solely for the convenience of bondholders and no representation is made as to the correctness of such CUSIP numbers. CUSIP numbers assigned to securities may be changed during the term of such securities based on a number of factors including, but not limited to, the refunding or defeasance of such issue or the use of secondary market financial products. Neither the City nor the Underwriters have agreed to, and there is no duty or obligation to, update this Official Statement to reflect any change or correction in the CUSIP numbers set forth above. CUSIP is a registered trademark of the American Bankers Association (“ABA”). CUSIP data is provided by CUSIP Global Services, which is managed on behalf of the ABA by FactSet Research Systems Inc.

CITY OF PHILADELPHIA, PENNSYLVANIA

MAYOR
Honorable James F. Kenney

MAYOR'S CHIEF OF STAFF
James Engler

MAYOR'S CABINET

Tumar Alexander........Managing Director
Rob Dubow........Director of Finance
Diana P. Cortes........City Solicitor
Nefertiri Sickout........Chief Diversity, Equity & Inclusion Officer
Stephanie Tipton........Chief Administrative Officer
Anne Nadol........Director of Commerce
Anne Fadullon........Director of Planning & Development
Otis Hackney........Chief Education Officer
Sheila Hess........City Representative
Sarah E. Stevenson........Chief Integrity Officer
Alexander F. DeSantis........Inspector General
Richard Lazer........Deputy Mayor for Labor Relations
Vanessa Garrett Harley........Deputy Mayor for Children and Families
Deborah Mahler........Deputy Mayor for Intergovernmental Affairs

CITY TREASURER
Jacqueline Dunn

CITY CONTROLLER
Rebecca Rhynhart

PHILADELPHIA WATER DEPARTMENT
Jefferson Center
1101 Market Street
Philadelphia, Pennsylvania 19107
Randy E. Hayman, Water Commissioner
Glen Abrams, Deputy Commissioner, Public Affairs
Marc Cammarata, Deputy Water Commissioner
Susan Crosby, Deputy Revenue Commissioner
Stephen J. Furtek, General Manager, Engineering and Construction
Ji Jun, General Counsel to the Water Department
Melissa LaBuda, Deputy Water Commissioner
Gerald D. Leatherman, Deputy Water Commissioner
Donna Schwartz, Deputy Water Commissioner

Financial Advisors
Acacia Financial Group, Inc. and
PFM Financial Advisors LLC

No dealer, broker, salesperson or other person has been authorized by the City or the Underwriters (defined herein) 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. The information set forth herein has been obtained from the City and other sources believed to be reliable and has been reviewed by the Underwriters in accordance with and as part of their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction but is not guaranteed as to accuracy or completeness by the Underwriters who provided this sentence for inclusion here. 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.

Statements contained in this Official Statement, including the Appendices hereto, 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. If and when included in this Official Statement, the words "expects," "forecasts," "plans," "anticipates," "projects," "intends," "anticipates," "estimates," "assumes" and analogous expressions are intended to identify forward-looking statements and any such statements inherently are subject to a variety of risks and uncertainties that could cause actual results to differ materially from those that have been projected. Such risks and uncertainties which could affect the operation of the Systems, and/or the amount of revenue collected by the City or the Water Department include, among others, changes in economic conditions and various other events, conditions and circumstances, many of which are beyond the control of the City and the Water Department. Readers should not place undue reliance on forward-looking statements. Such forward-looking statements speak only as of the date of this Official Statement. The City disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any changes in the City's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Upon their issuance, the Bonds will not be registered under the Securities Act of 1933, as amended, will not be listed on any stock or other securities exchange and neither the U.S. Securities and Exchange Commission ("SEC") nor any other federal, state, municipal or other governmental entity, other than the City (subject to the limitations set forth herein), will have passed upon the accuracy or adequacy of this Official Statement.

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. This Official Statement is being provided to prospective purchasers in electronic format from the following websites: www.mcelweequinn.com and www.emma.msrb.org as well as either bound or printed format ("Original Bound Format"). This Official Statement may be relied upon only if it is in its Original Bound Format or if it is printed or saved in full directly from such websites.

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 MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE CITY, THE WATER DEPARTMENT AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

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.

This Official Statement speaks only as of the date printed on the cover page hereof. This Official Statement, and any supplement or amendment thereto, will be delivered to the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access System.

References to website addresses presented herein, including the City's Investor Relations Website or any other website containing information about the City, the Water Department, or any third party, are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for any purpose, including for purposes of Rule 15c2-12 promulgated by the SEC pursuant to the Securities Exchange Act of 1934.

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OFFICIAL STATEMENT SUMMARY

This summary is furnished to provide limited introductory information regarding the terms of the Bonds and is qualified by the more detailed descriptions appearing in this Official Statement and the appendices hereto. The offering of the Bonds is made only by means of this entire Official Statement, and no person is authorized to make offers to sell or solicit offers to buy the Bonds unless the entire Official Statement is delivered. Certain terms used in this summary are defined elsewhere in this Official Statement.

The City	The City of Philadelphia, Pennsylvania (the "City") is a corporation, body politic and city of the first class of the Commonwealth of Pennsylvania.
The Bonds	$294,810,000 of Philadelphia, Pennsylvania Water and Wastewater Revenue Bonds, Series 2022C (the "Bonds") as shown on the inside front cover page of this Official Statement.
Use of Proceeds	The Bonds are being issued to provide funds to finance (i) capital improvements to the System, (ii) a deposit to the Debt Reserve Account of the Sinking Fund and (iii) the costs of issuance relating to the Bonds. See "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" contained herein.
Maturity	The Bonds mature on the dates in the principal amounts set forth in the inside cover page hereof.
Interest	Interest on the Bonds accrues from their date of delivery and is payable on June 1 and December 1 of each year, commencing on December 1, 2022, until maturity or earlier redemption.
Redemption	The Bonds are subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See "THE BONDS – Redemption Provisions" contained herein.
Ratings	Fitch Ratings, Inc. ("Fitch"), Moody's Investors Service, Inc. ("Moody's") and S&P Global Ratings ("S&P") have assigned credit ratings of "A+", stable outlook, "A1", stable outlook and "A+", stable outlook, respectively, to the Bonds. See "RATINGS" contained herein.
Security for the Bonds	The Bonds, together with other Water and Wastewater Revenue Bonds currently outstanding or hereafter issued under the General Ordinance, are revenue bonds secured by and payable from (i) all rents, rates, fees and charges imposed or charged for connection to, or use or product of or services generated by the System to the ultimate users thereof, (ii) all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, (iii) all subsidies or payments payable by federal, state or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on monies borrowed to finance costs chargeable to the System, (iv) all grants, payments and contributions made in aid or on account of the System exclusive of grants and similar payments and contributions solely in aid of construction and (v) all accounts, contract rights and general intangibles representing the foregoing (collectively referred to as, the "Project Revenues"). The City pledges, assigns and grants to the Fiscal Agent, in trust for the security and payment of all Water and Wastewater Revenue Bonds, a lien on and security interest in all Project Revenues and all amounts on deposit in or standing to the

	credit of the Water and Wastewater Funds (other than the Rebate Fund), for the equal and ratable benefit of all present and future holders of Water and Wastewater Revenue Bonds (other than Subordinated Bonds) issued under the General Ordinance. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" contained herein.
Debt Reserve Account	On the date of issuance of the Bonds, the outstanding balance in the Debt Reserve Account will be sufficient to meet the Debt Reserve Requirement for all Water and Wastewater Revenue Bonds outstanding after the issuance of the Bonds. If at any time and for any reason, the monies in the Debt Service Account of the Sinking Fund are insufficient to pay as and when due, the principal of (and premium, if any) or interest on any Water and Wastewater Revenue Bond, the Fiscal Agent is authorized and directed to withdraw from the Debt Reserve Account and pay over the amount of such deficiency for deposit in the Debt Service Account. As of June 30, 2022, the balance of cash and investments in the Debt Reserve Account was $190,013,789.74 (excluding Net Reserve Earnings transferred to the Residual Fund for Fiscal Year 2022 as discussed herein), which was in excess of the Debt Reserve Requirement on such date. See "INTRODUCTORY STATEMENT – Springing Amendments to General Ordinance to Become Effective" and "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Debt Reserve Account" herein.
Parity Bonds	All Water and Wastewater Revenue Bonds are equally and ratably secured under the General Ordinance.
Rate Covenant	The City has covenanted to Bondholders that it will establish rents, rates, fees and charges for the use of the System to yield Net Revenues in each Fiscal Year sufficient to meet the requirements of each of the three following coverage tests, (1) Net Revenues will equal at least 1.20 times Debt Service Requirements (excluding Debt Service Requirements in respect of Subordinated Bonds) for such Fiscal Year; (2) Net Revenues (recalculated to exclude any transfers from the Rate Stabilization Fund) will equal at least 90% of Debt Service Requirements (excluding Debt Service Requirements in respect of Subordinated Bonds) for such Fiscal Year; and (3) Net Revenues will equal at least 1.00 times the following payments and transfers to be made in such Fiscal Year: (i) the Debt Service Requirements (including Debt Service Requirements in respect of Subordinated Bonds); (ii) amounts required to be deposited into the Debt Reserve Account; (iii) debt service payable on General Obligation Bonds issued for the System; (iv) debt service due on Interim Debt; and (v) the Capital Account Deposit Amount, less any amounts transferred from the Residual Fund to the Capital Account. As of the date hereof, no General Obligation Bonds issued for the System are outstanding, no Interim Debt is outstanding and no Subordinated Bonds are outstanding. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Rate Covenant" contained herein.
Springing Amendments to Become Effective Upon Issuance of Bonds	Ordinance No. 171110-A, signed by the Mayor on April 24, 2018, includes certain amendments to the General Ordinance (the "Springing Amendments") that will become effective upon the consent of the holders of at least 67% of Water and Wastewater Revenue Bonds outstanding. See "INTRODUCTORY STATEMENT – Springing Amendments to General Ordinance to Become Effective" herein and APPENDIX II-A and APPENDIX II-B hereof. **By virtue of their purchase, holders of the Bonds will be deemed to have consented to the Springing Amendments. The consent of the holders of 67% of Water and Wastewater Bonds outstanding will be satisfied upon the issuance of the Bonds, thereby rendering the Springing Amendments effective upon such date of issuance.** As

	of June 30, 2022, the consent of 65.32% of the holders of Water and Wastewater Revenue Bonds has been obtained. Upon issuance of the Bonds, approximately 69.63% of holders of Water and Wastewater Revenue Bonds will be deemed to have consented to the Springing Amendments.
Book-Entry Only System	The Bonds are initially issuable only to Cede & Co., the nominee of The Depository Trust Company, New York, New York ("DTC"), pursuant to a book-entry only system. No physical delivery of the Bonds will be made to the beneficial owners of the Bonds. Principal of and interest on the Bonds will be paid to Cede & Co., which will distribute such payments to the participating members of DTC for remittance to the beneficial owners of the Bonds. See APPENDIX VII herein.
No Payment Defaults	The City has never failed to make a payment of principal of or interest on its Water and Wastewater Revenue Bonds.
Fiscal Agent/Registrar	The Fiscal Agent and registrar for the Bonds is U.S. Bank Trust Company, National Association, Philadelphia, Pennsylvania.
Tax Exemption	In the opinion of Co-Bond Counsel, interest on the Bonds is excludable from gross income for purposes of federal income tax, assuming continuing compliance with the requirements of the federal tax laws. Interest on the Bonds is not an item of tax preference for purposes of federal alternative minimum tax imposed on individuals. Co-Bond Counsel is also of the opinion that, under the laws of the Commonwealth of Pennsylvania, interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax. See "TAX MATTERS" herein.
Investment Considerations	For certain investment considerations relating to the decision to purchase the Bonds, see "CERTAIN INVESTMENT CONSIDERATIONS" herein.

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OFFICIAL STATEMENT
relating to

$294,810,000
CITY OF PHILADELPHIA, PENNSYLVANIA
Water and Wastewater Revenue Bonds,
Series 2022C

INTRODUCTORY STATEMENT

General

This Official Statement, including the cover page, inside front cover page and appendices attached hereto, sets forth certain information in connection with the issuance by the City of Philadelphia, Pennsylvania, a corporation, body politic and city of the first class existing under the laws of the Commonwealth of Pennsylvania (the "City") of its Bonds. Capitalized terms used but not otherwise defined in this Official Statement have the meanings ascribed to them in APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Certain Definitions."

The Bonds are being issued to provide funds to finance (i) capital improvements to the System, (ii) a deposit to the Debt Reserve Account of the Sinking Fund, and (iii) the costs of issuance relating to the Bonds. See "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" herein.

The Bonds are being issued under (i) 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 (ii) the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989, approved by the Mayor June 24, 1993 (the "Restated General Ordinance"), as supplemented and amended from time to time, including by the Twenty-Second Supplemental Ordinance approved by the Mayor on May 15, 2019 (the "Twenty-Second Supplemental Ordinance"), which provides specific authority for the issuance of the Bonds. The Restated General Ordinance, as supplemented or amended from time to time, is referred to as the "General Ordinance." All bonds issued under the General Ordinance (whether prior to or following the date hereof) are referred to herein as "Water and Wastewater Revenue Bonds." U.S. Bank Trust Company, National Association, Philadelphia, Pennsylvania, is acting as Fiscal Agent (the "Fiscal Agent") for the Water and Wastewater Revenue Bonds.

The Water Department

Pursuant to the Philadelphia Home Rule Charter (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" or the "System"). The Water Department, which began water service in the 1800s, supplies water and wastewater services to customers within the City and has one wholesale water contract and ten wholesale wastewater contracts with entities outside the City. Under the General Ordinance, the Water and Wastewater Systems are treated as one combined utility for the purpose of revenue bond financing. See "THE WATER DEPARTMENT" herein.

Rate Covenant Under the General Ordinance

Under the General Ordinance, the City must set rates and charges at levels that provide sufficient revenue to meet Operating Expenses (defined herein) of the System, including Interfund Charges (defined herein) for services provided to the Water Department, and Debt Service Requirements on all obligations issued for the Water Department, as well as to meet other specific covenants contained in the General Ordinance. For a more detailed discussion, see "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Rate Covenant" and "RATES" contained herein.

Springing Amendments to General Ordinance to Become Effective

Ordinance No. 171110-A, signed by the Mayor on April 24, 2018 (the "Twenty-First Supplemental Ordinance") includes amendments to the General Ordinance. Certain amendments became effective when the Mayor signed the Twenty-First Supplemental Ordinance, which are summarized in APPENDIX II-A – SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS. This includes the addition of a covenant that the City will, at a minimum, impose, charge and collect in each Fiscal Year such water and wastewater rents, rates, fees and charges as shall yield Net Revenues (calculated, for purposes of this covenant only, to exclude any amounts transferred from the Rate Stabilization Fund to the Revenue Fund in, or as of the end of, such Fiscal Year) which will be equal to at least 0.90 times Debt Service Requirements for such Fiscal Year (excluding principal and interest payments in respect of Subordinated Bonds). This also includes a clarification of the definition of "Debt Reserve Requirement" to remove some ambiguity concerning the method of calculation.

Certain other amendments (the "Springing Amendments") will become effective upon the consent of the holders of at least 67% of Water and Wastewater Revenue Bonds outstanding (the "67% Effective Date") and are described below. See APPENDIX II-B – TWENTY-FIRST SUPPLEMENTAL ORDINANCE.

By virtue of their purchase, holders of the Bonds will be deemed to have consented to the Springing Amendments. The consent of the holders of 67% of Water and Wastewater Revenue Bonds outstanding will be satisfied upon the issuance of the Bonds, thereby rendering the Springing Amendments effective upon such date of issuance.

The Springing Amendments contained in the Twenty-First Supplemental Ordinance amend the General Ordinance as follows.

1. In Section 2.01, amend the definitions of "Credit Facility" and "Substitute Credit Facility" to remove the minimum rating threshold for a Credit Facility and a Substitute Credit Facility provider.

2. In Section 2.01, amend the definition of "Rating Agency" to include any rating service that has a rating in effect for the Water and Wastewater Revenue Bonds at the subject time.

3. Amend Section 4.09 to allow the City, pursuant to the Supplemental Ordinance authorizing the issuance of a Series of Water and Wastewater Revenue Bonds, to establish a separate debt reserve subaccount in the Debt Reserve Account to secure such Series of Water and Wastewater Revenue Bonds (and only such Series) in lieu of a deposit to the Debt Reserve Account in respect of such Series of Water and Wastewater Revenue Bonds, upon receipt of a rating confirmation from any one Rating Agency then rating the Water and Wastewater Revenue Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Water and Wastewater Revenue Bonds Outstanding.

4. Further amend Section 4.09 to allow the City, pursuant to the Supplemental Ordinance authorizing the issuance of a Series of Water and Wastewater Revenue Bonds, to provide for no deposit to the Debt Reserve Account and no establishment of a Series-specific debt reserve subaccount in respect of a Series of Water and Wastewater Revenue Bonds, upon receipt of a rating confirmation from any one Rating Agency then rating the Water and Wastewater Revenue Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Water and Wastewater Revenue Bonds Outstanding.

5. In connection with paragraphs 3 and 4 above, add the definitions "Series Debt Reserve Requirement" and "Series Debt Reserve Subaccount" to Section 2.01.

6. Further amend Section 4.09 to permit the City to transfer any excess in the Debt Reserve Account or a subaccount thereof directly to (i) the Sinking Fund or a refunding escrow to pay the Debt Service Requirements or redemption price, as applicable, on Water and Wastewater Revenue Bonds secured by such account or subaccount, or (ii) if such monies do not constitute tax-exempt bond proceeds, the Residual Fund, for the purposes thereof.

7. Further amend Section 4.09 to permit the City, in connection with the issuance of refunding bonds pursuant to Section 5.04(g) of the General Ordinance, to transfer amounts from the Debt Reserve Account or a subaccount held by the Fiscal Agent in respect of the Water and Wastewater Revenue Bonds being refunded to the Debt Reserve Account or a subaccount to satisfy any debt reserve requirements in respect of such refunding bonds.

8. Amend the provisions of Section 4.09 relating to the City's right to deposit into the Debt Reserve Account, to meet the Debt Reserve Requirement, a surety bond, irrevocable letter of credit or insurance policy (a "Debt Reserve Facility"), to qualify a Debt Reserve Facility whose provider has a current long-term rating in at least the "A" category from one Rating Agency at the time the Debt Reserve Facility is obtained by the City. In the event that after the City has deposited cash into the Debt Reserve Account as required in connection with a Debt Reserve Facility rating reduction or suspension, but prior to any cancellation thereof, such Debt Reserve Facility meets the rating criteria described above, no excess of the Debt Reserve Requirement will result for purposes of calculating the Debt Reserve Requirement.

9. Amend Section 5.01 of the General Ordinance concerning the determination of Debt Service Requirements relating to Variable Rate Bonds for the purposes of meeting the Rate Covenant and the requirements for issuing additional Water and Wastewater Revenue Bonds, and concerning the determination of the Debt Reserve Requirement relating to variable rate bonds.

10. In connection with #9 above, (i) amend the definition of "Debt Service Requirements" in, and (ii) add a definition of "Balloon Bonds" to, Section 2.01.

As of June 30, 2022, the consent of 65.32% of the holders of Water and Wastewater Revenue Bonds has been obtained. Upon the issuance of the Bonds, it is expected that approximately 69.63% of holders of Water and Wastewater Revenue Bonds will have consented to the Springing Amendments. Upon the issuance of the Bonds, the Springing Amendments contained in the Twenty-First Supplemental Ordinance will become effective.

See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Debt Reserve Account – *Springing Amendments*" herein and APPENDIX II-A and APPENDIX II-B of this Official Statement for additional description of the Springing Amendments and other amendments; and see APPENDIX II-B of this Official Statement for a copy of the Twenty-First Supplemental Ordinance.

Rate Ordinance and Ratemaking Board

An independent rate-making body known as the Philadelphia Water, Sewer, and Stormwater Rate Board (the "Rate Board") is solely responsible for fixing and regulating rates and charges for supplying water, sewer and stormwater services. The Rate Board was established pursuant to Ordinance No. 130251-A, signed by the Mayor on January 20, 2014 (the "Rate Ordinance"). For a further discussion of rate setting, the Rate Board and the Rate Ordinance, see "RATES" below.

Security and Sources of Payment for the Bonds

The Bonds, equally and ratably with all Water and Wastewater Revenue Bonds (other than Subordinated Bonds (of which none currently are outstanding)), are payable from and secured by a pledge of all Project Revenues and amounts on deposit in the Water and Wastewater Funds (other than the Rebate Fund). See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" herein and APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance."

Under the General Ordinance, a Debt Reserve Account of the Sinking Fund has been established to secure the Water and Wastewater Revenue Bonds, other than Subordinated Bonds (of which none currently are outstanding). On the date of issuance of the Bonds, the amount on deposit in the Debt Reserve Account will be sufficient to meet the Debt Reserve Requirement for all Water and Wastewater Revenue Bonds outstanding after the issuance of the Bonds. For a discussion of the Debt Reserve Account, see "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Debt Reserve Account" herein.

Capital Improvement Program

As required by the Charter, the Water Department has adopted a six-year capital improvement program to plan and manage the capital investments necessary to fulfill the Water Department's service missions, comply with regulatory requirements and preserve and upgrade the System (the "Water Capital Improvement Program"). The Water Department updates the Water Capital Improvement Program annually as part of its yearly budget process, based on a detailed project review by engineering staff, external engineering consultants, and senior management. For a more detailed discussion of the Water Capital Improvement Program and the Water Department's capital budgeting process, see "CAPITAL IMPROVEMENT PROGRAM" herein.

Financial Information

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 to account for the assets, liabilities, revenues, expenses of, and to measure Rate Covenant compliance for, the Water and Wastewater System.

The City is required by the Charter to issue, within 120 days after the close of each Fiscal Year, a statement as of the end of the Fiscal Year showing the balances in all funds of the City, the amounts of the City's known liabilities, and such other information as is necessary to furnish a true picture of the City's financial condition (the "Annual Financial Report"). The Annual Financial Report, which is released on or about October 28 of each year, is intended to meet these requirements and is unaudited. The Annual Financial Report contains financial statements for all City governmental funds and blended component units presented on the modified accrual basis. The Annual Financial Report also contains a budgetary comparison schedule for the Water Fund in the supplementary information. The City released the Annual Financial Report for Fiscal Year 2021 on or about October 26, 2021.

The City reports its financial performance for each Fiscal Year on a consolidated basis in its audited Annual Comprehensive Financial Report (the "ACFR") which is published not later than February 28 of each year. The City's ACFR for Fiscal Year 2021, which includes audited financials of and other information relating to the Water Fund, was filed on the Electronic Municipal Market Access System of the Municipal Securities Rulemaking Board ("MSRB") on February 25, 2022 and is available at http://www.emma.msrb.org. The City Controller has examined and expressed opinions on the basic financial statements of the City contained in the ACFR for Fiscal Year 2021. See APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – City Finances and Financial Procedures – Independent Audit and Opinion of the City Controller" attached hereto.

The financial statements of the Water Fund for the Fiscal Year ended June 30, 2021, attached hereto as APPENDIX I, are derived from the ACFR for the Fiscal Year ended June 30, 2021. The financial statements pertaining to the Water Fund are derived from the ACFR in order to present the financial condition of the Water Fund separately from the financial condition of the City and its other funds and units as a whole. The City Controller has neither examined nor expressed an opinion on the financial statements of the Water Fund contained in APPENDIX I to this Official Statement or on any other financial data contained in this Official Statement, except as noted in the preceding paragraph as to the ACFR.

The City Controller has neither 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 except as noted regarding the ACFR. The City Controller expresses no opinion with respect to any of the data contained in this Official Statement.

COVID-19 Response

General. On March 11, 2020, the World Health Organization declared a novel strain of coronavirus ("COVID-19"), a worldwide pandemic. Due to the increase in the number of COVID-19 cases around the country and internationally, federal, state, and local bodies enacted legislation, and other administrative orders, directives and guidance to mitigate the impacts of COVID-19 on the general population and the economy. Since then, the Governor of the Commonwealth and the Mayor of the City of Philadelphia have instituted a series of orders and other emergency measures, which have expired or been supplanted. As vaccination rates have increased, both the Commonwealth and the City have eased restrictions.

The City continues to closely monitor and assess the effects of the COVID-19 pandemic and its impact on the City's financial position and operations. The complete fiscal impact of COVID-19 on the City is likely to change significantly as the situation further develops and cannot be fully quantified at this time. For more information on the City's response to COVID-19 and the related financial impact on the City, see APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – OVERVIEW – Fiscal Health of the City – COVID-19."

Measures Implemented by the Water Department. In connection with the COVID-19 pandemic, the City instituted a moratorium on shut offs and disconnections in April 2020. The moratorium on shut offs remained in effect for residential accounts until June 30, 2022; however, the first shut offs occurred the week of July 25, 2022. The Water Department ceased implementing the moratorium on shut offs for delinquent commercial accounts in October of 2021. Since then, delinquent commercial accounts have been eligible for shut off on a rolling basis. The City has recently reevaluated its policy and has determined, with the input of stakeholders, that the delinquency threshold to be eligible for shut off will increase from $150 to $1,000 for residential accounts. The impact of the new threshold is a significantly, reduced number of accounts eligible for shut off although residential accounts above the new threshold will still be subject to shut off.

Miscellaneous

Brief descriptions of the Water Department, the Bonds and the security therefor, and certain information about the City are included herein. All references herein to the Act, the Charter, the General Ordinance and the Continuing Disclosure Agreement are qualified in all respects by reference to each such document in its entirety. The Annual Financial Report, ACFR, and the financial statements of the Water Fund are available on the City's Investor Website at http://www.phila.gov/investor (the "City's Investor Website").

The "Terms of Use" statement of the City's Investor Website, which applies to all users of the City's Investor Website, provides, among other things, that the information contained therein is provided for the convenience of the user, that the City is not obligated to update such information, and that the information may not provide all information that may be of interest to investors. The information contained on the City's Investor Website does not constitute an offer to buy or sell securities, nor is it a solicitation therefor. The information contained in the City's Investor Website is not incorporated by reference in this Official Statement and persons considering the purchase of the Bonds should rely only on information contained in this Official Statement or incorporated by reference herein.

The foregoing statement as to filing or furnishing of additional information reflects the City's current practices but is not a contractual obligation to the holders of the City's bonds. The foregoing information is furnished solely to provide limited introductory information with respect to the Bonds and does not purport to be comprehensive or definitive. 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.

The financial statements of the Water Fund are attached hereto as APPENDIX I. Summaries of certain provisions of the Act, the General Ordinance, and Twenty-Second Supplemental Ordinance (including definitions of certain terms), are attached hereto as APPENDIX II-A. A copy of the Twenty-First Supplemental Ordinance is attached hereto as APPENDIX II-B. A description of the Government and Financial Information of the City is attached hereto as APPENDIX III. The City of Philadelphia Socioeconomic Information is attached hereto as APPENDIX IV. The form of approving opinion of Co-Bond Counsel to be delivered in connection with the issuance and delivery of the Bonds is attached hereto as APPENDIX V. The form of Continuing Disclosure Agreement relating to the Bonds is attached hereto as APPENDIX VI. Information relating to the Depository Trust Company is attached hereto as APPENDIX VII.

PLAN OF FINANCE

The City is issuing the Bonds to provide funds to finance (i) capital improvements to the System, (ii) a deposit to the Debt Reserve Account of the Sinking Fund and (ii) the costs of issuance relating to the Bonds. See "ESTIMATED SOURCES AND USES OF FUNDS" and "CAPITAL IMPROVEMENT PROGRAM" herein.

ESTIMATED SOURCES AND USES OF FUNDS

The following table sets forth estimated sources and uses of the proceeds of the Bonds.

Sources of Funds	**Total**
Principal Amount of the Bonds	$294,810,000.00
Original Issue Premium	43,654,508.05
Total Sources of Funds	$338,464,508.05
Uses of Funds	
Deposit to Construction Fund	$328,000,000.00
Deposit to Debt Reserve Account	8,500,000.00
Costs of Issuance*	1,964,508.05
Total Uses of Funds	$338,464,508.05

*Includes Underwriters' discount; legal, printing, rating agency, consultant, Fiscal Agent and financial advisor fees; and other expenses of the issuance and offering of the Bonds.

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THE BONDS

General

The Bonds will be issued in the aggregate principal amount, will be dated, will bear interest at the rates and will mature on the dates and in the amounts shown on the inside front 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") pursuant to DTC's Book-Entry Only System. See APPENDIX VII herein.

The Bonds will be issued in denominations of $5,000 or any integral multiple thereof. Interest on the Bonds, calculated on the basis of a 360-day year comprised of twelve 30-day months, will be payable semiannually on June 1 and December 1 of each year, commencing on December 1, 2022 (each, an "Interest Payment Date"). The Record Date for the Bonds will be each May 15 and November 15, respectively.

Redemption Provisions

Optional Redemption. The Bonds maturing on or after June 1, 2033 are subject to optional redemption prior to maturity on or after June 1, 2032, at the option of the City, as a whole at any time or in part from time to time in the maturities selected by the City and within a maturity and a given interest rate, if applicable, by lot as determined by the Fiscal Agent at the redemption price of 100% of the principal amount of the Bonds to be redeemed, plus accrued interest to the redemption date.

Mandatory Sinking Fund Redemption. The Bonds maturing on June 1, 2047 and June 1, 2052 are subject to mandatory sinking fund redemption prior to maturity, as drawn by lot by the Fiscal Agent, in the following years at a redemption price equal to 100% of the principal amounts set forth below.

Bonds Maturing June 1, 2047

Year	Principal Amount
2043	$11,620,000
2044	12,200,000
2045	12,810,000
2046	13,450,000
2047*	14,125,000

*Stated maturity

Bonds Maturing June 1, 2052

Year	Principal Amount
2048	$11,100,000
2049	11,710,000
2050	12,355,000
2051	13,030,000
2052*	13,750,000

*Stated maturity

The principal amount of the Bonds required to be redeemed on each mandatory sinking fund redemption date may be reduced by the principal amount of the 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 will 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 the call for any redemption of Bonds prior to maturity shall be given in the name of the City and shall contain the following information: "CUSIP" number; and, in the case of a partial redemption of any Bond, the certificate number and the respective principal amounts of the Bonds to be redeemed; the publication date; the redemption date; the redemption price and the name and address of the redemption agent, and shall further identify the Bonds by date of issue, interest rate and maturity date. Such notice shall be given by the Fiscal Agent by depositing a copy of the notice of redemption in the United States mail, first-class, postage prepaid, at least 20 days and not more than 60 days prior to the date fixed for redemption, to the registered owner of each such Bond to be redeemed at the address shown on the registration books kept by the Fiscal Agent, provided, however, that notice of redemption shall be given by certified mail, return receipt requested, to each owner of at least $1,000,000 aggregate principal amount of Bonds.

Notice having been so given and provisions having been made for redemption from funds on deposit with the Fiscal Agent, all interest on Bonds called for redemption accruing after the date fixed for redemption shall cease, and the holders or registered owners of the Bonds called for redemption shall have no security, benefit or lien under the General Ordinance or any right except to receive payment of the redemption price.

If at the time of mailing notice of redemption the City shall not have deposited with the Fiscal Agent monies 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 monies with the Fiscal Agent not later than the redemption date, and such notice shall be of no effect unless such monies are so deposited.

Debt Service Requirements

Table 1 on the following page sets forth the aggregate Debt Service Requirements for all Outstanding Water and Wastewater Revenue Bonds, including the Bonds. The Debt Service Requirements set forth below do not reflect the Commercial Paper Notes (hereinafter defined) Outstanding as of the date of this Official Statement. For information concerning the Commercial Paper Notes Outstanding, see "CAPITAL IMPROVEMENT PROGRAM – Commercial Paper Program" herein. Similarly, Table 1 does not reflect debt service requirements on the City's Water and Wastewater Revenue Bond, Series 2022A (Pennvest Loan – Flat Rock Dam Manayunk Canal) (the "Pennvest 2022A Bond") or the City's Water and Wastewater Revenue Bond, Series 2022B (Pennvest Loan – Linear Assets Drinking Water Line Replacement) (the "Pennvest 2022B Bond"), proceeds of which have not been drawn as of the date of this Official Statement.

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Table 1
Debt Service Requirements for Fiscal Years Ending June 30
for Water and Wastewater Revenue Bonds
As of June 30, 2022

Fiscal Year Ending	Aggregate Debt Service on Water and Wastewater Revenue Bonds Outstanding[(1)(2)]	2022C Bonds		Total
		Principal	Interest	
2023[(3)]	$ 183,313,464	$ 3,020,000	$ 12,168,906	$ 198,502,370
2024	172,390,389	10,855,000	15,220,250	198,465,639
2025	175,318,416	8,505,000	14,677,500	198,500,916
2026	176,317,190	7,930,000	14,252,250	198,499,440
2027	172,432,341	8,295,000	13,855,750	194,583,091
2028	157,382,773	6,445,000	13,441,000	177,268,773
2029	150,767,936	6,770,000	13,118,750	170,656,686
2030	152,159,601	7,105,000	12,780,250	172,044,851
2031	152,232,798	7,465,000	12,425,000	172,122,798
2032	149,301,771	7,835,000	12,051,750	169,188,521
2033	136,446,145	8,230,000	11,660,000	156,336,145
2034	136,447,311	8,640,000	11,248,500	156,335,811
2035	136,454,419	9,070,000	10,816,500	156,340,919
2036	136,447,766	9,525,000	10,363,000	156,335,766
2037	136,448,734	8,670,000	9,886,750	155,005,484
2038	136,948,364	9,105,000	9,453,250	155,506,614
2039	136,953,319	9,560,000	8,998,000	155,511,319
2040	136,945,206	10,035,000	8,520,000	155,500,206
2041	136,952,713	10,540,000	8,018,250	155,510,963
2042	134,662,892	11,060,000	7,491,250	153,214,142
2043	134,284,798	11,620,000	6,938,250	152,843,048
2044	128,686,437	12,200,000	6,299,150	147,185,587
2045	117,917,492	12,810,000	5,628,150	136,355,642
2046	117,918,371	13,450,000	4,923,600	136,291,971
2047	84,557,269	14,125,000	4,183,850	102,866,119
2048	84,553,788	11,100,000	3,406,975	99,060,763
2049	84,563,819	11,710,000	2,796,475	99,070,294
2050	84,557,844	12,355,000	2,152,425	99,065,269
2051	84,563,369	13,030,000	1,472,900	99,066,269
2052	73,066,763	13,750,000	756,250	87,573,013
2053	59,099,675	-	-	59,099,675
2054	40,017,500	-	-	40,017,500
2055	21,883,750	-	-	21,883,750
2056	-	-	-	-
Total[*]	**$4,121,994,422**	**$294,810,000**	**$269,004,931**	**$4,685,809,354**

[(1)]Net of Capitalized Interest.
[(2)] Does not reflect the Pennvest 2022A Bond or the Pennvest 2022B Bond, no portion of which is outstanding, or the Commercial Paper Notes Outstanding.
[(3)]Includes full year of debt service for Fiscal Year 2023.
[(*)]Totals may not add due to rounding.

SECURITY AND SOURCES OF PAYMENT FOR THE BONDS

Parity Bonds

All Water and Wastewater Revenue Bonds (other than Subordinated Bonds) (none of which are currently outstanding) are equally and ratably secured under the General Ordinance. No Subordinated Bonds are Outstanding under the General Ordinance.

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) 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 (other than the Rebate Fund). The Fiscal Agent must hold and apply the security interest in and lien on Project Revenues and funds and accounts, in trust, for the equal and ratable benefit and security of all present and future holders of Water and Wastewater Revenue Bonds (other than Subordinated Bonds). The General Ordinance provides that such pledge also may 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), on an equal and ratable basis with the holders of Water and Wastewater Revenue Bonds (other than Subordinated Bonds).

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Priority and Application of Project Revenues

The priority and application of Project Revenues under the terms of the General Ordinance and other amounts deposited into the Revenue Fund are set forth in the waterfall below:

1	payment of Operating Expenses;
2	payment of the principal or redemption price of and interest on Water and Wastewater Revenue Bonds issued under the General Ordinance (except Subordinated Bonds), regularly scheduled payments under any parity Swap Agreement, payments under any parity Credit Facility to repay advances thereunder to pay any of the foregoing and payments with respect to fees and expenses in respect of any parity Credit Facility;
3	if the transfers in (1) and (2) are made when due, payments into the Debt Reserve Account to the extent necessary to cure a deficiency therein;
4	if the transfers in (1) and (2) are made when due, and following any transfer described in (3), 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;
5	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) and (4), payment of principal or redemption price of and interest on any Subordinated Bonds and payments due under any Swap Agreement or Credit Facility respecting Subordinated Bonds;
6	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) through (5), all payments due under a Qualified Swap, other than regularly scheduled swap payments, including, without limitation, any payments due to a Swap Provider upon the early termination of a Swap Agreement;
7	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) through (6), transfer to the City of the amount necessary to pay General Obligation Bonds issued for the System;
8	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) through (7), transfer to the Rate Stabilization Fund of the amount determined by the Water Commissioner;
9	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) through (8), 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
10	if the transfers in (1) and (2) are made when due, and following any transfers described in (3) through (9), after providing for repayment of any interfund loans, transfer to the Residual Fund of any amount remaining on deposit in the Revenue Fund.

The General Ordinance permits the application of Project Revenues to pay Interfund Charges (defined herein) and 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 lesser of (A) all Net Reserve Earnings (as defined below) and (B) $4,994,000. "Net Reserve Earnings" means 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 Internal Revenue Code of 1986, as amended. In Fiscal Years 2022, 2021 and 2020, the Water Department transferred $575,642.97, $2,586,100 and $4,994,000, respectively, from the Residual Fund to the City's General Fund. The budgeted transfer for Fiscal Year 2023 is $4,994,000. For a brief discussion of the Residual Fund, see "– Residual Fund" below.

Water and Wastewater Funds

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

(a) Revenue Fund;

(b) Sinking Fund and within such fund a Debt Service Account, a Charges Account and a Debt Reserve Account;

(c) Subordinated Bond Fund;

(d) Rate Stabilization Fund;

(e) Construction Fund and within such fund an Existing Projects Account, a Bonds Proceeds Account and a Capital Account; and

(f) Residual Fund and within such fund a Special Water Infrastructure Account.

The foregoing funds are referred to herein as the "Water and Wastewater Funds." 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 General Ordinance also establishes a Rebate Fund, which is not held for the benefit of the holders of the Water and Wastewater Revenue Bonds, and provides that the City can direct transfers to the Rebate Fund at the times and in the amounts necessary to pay any amounts required to be rebated pursuant to Section 148(f) of the Code.

Project Revenues. 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 the Fiscal Agent also shall cause to be deposited into the Revenue Fund such portion of the proceeds of the Bonds as are designated by Supplemental Ordinance or Bond Committee Determination and any other funds directed to be deposited into the Revenue Fund by the City. 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 as permitted under the General Ordinance.

Project Revenues include, among other things, rents, rates, fees and charges from users of the products and services generated by the System (collectively, "rates and charges"). Collection and accounting of rates and charges are administered by the Water Revenue Bureau within the City's Department of Revenue. See "THE WATER DEPARTMENT – Administration" herein. Historically, all rates and charges collected by the Water

Revenue Bureau, whether by cashier, mail, or electronic payment, are recorded upon receipt, and are held temporarily by the City's fiscal agent in a consolidated cash account of the City. The City generates a report of rates and charges collected at each day's end and transfers, typically on the next day, all rates and charges so held to one or more accounts controlled by the Fiscal Agent for the Water and Wastewater Funds for deposit by the Fiscal Agent into the Revenue Fund. The City continues to examine the collection and accounting process with a view towards causing rates and charges to be deposited with the Fiscal Agent into the Revenue Fund as and when received.

See APPENDIX I – "FINANCIAL STATEMENTS OF THE WATER FUND DERIVED FROM THE CITY'S AUDITED ANNUAL COMPREHENSIVE FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2021" and APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance" for additional information concerning the priority and application of Project Revenues and further description of the funds and accounts established under the General Ordinance and their purposes.

Interfund Loans. If at any time sufficient monies are not available in the Revenue Fund to pay both Operating Expenses and to make the transfers described above under the heading "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Priority and Application of Project Revenues," then amounts on deposit in the Construction Fund, Rate Stabilization Fund and/or Residual Fund may be loaned temporarily, at the written direction of the City, to the Revenue Fund, for the payment of such Operating Expenses until such loaned amounts are required by the Water Department for purposes of the Fund making the loan. Such interfund loans permit the Water Department then to use Project Revenues for the other transfers described above under " – Priority and Application of Project Revenues." If a similar deficiency exists in the Construction Fund, amounts on deposit in any of 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 Water Department has from time to time made interfund loans in prior Fiscal Years from the Rate Stabilization Fund to the Revenue Fund. The Water Department did not make such loans in Fiscal Years 2020, 2021 and 2022 and does not expect to make a loan from the Rate Stabilization Fund to the Revenue Fund in Fiscal Year 2023.

Debt Reserve Account

General. The General Ordinance establishes within the Sinking Fund a Debt Reserve Account that will be funded (if required to be funded) with 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 the related Water and Wastewater Revenue Bonds. The monies and investments in the Debt Reserve Account will 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 are insufficient to pay as and when due the principal of (and premium, if any) or interest on any series of Water and Wastewater Revenue Bonds or other obligations payable from the Debt Service Account (including obligations arising in connection with Qualified Swap Agreements and Credit Facilities), the Fiscal Agent is required to transfer from the Debt Reserve Account the amount of such deficiency for deposit in the Debt Service Account.

With respect to any issue of Water and Wastewater Revenue Bonds, 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. In addition, the General Ordinance authorizes the City to apply monies on deposit in the Debt Reserve Account to purchase a surety bond, an insurance policy or an irrevocable letter of credit. Under the terms of the General Ordinance, any surety bond, insurance policy or letter of credit provided by the City in lieu of required deposits within the Debt Reserve Account would, at the time of issuance thereof, be required to meet the credit quality requirements of the General Ordinance as described in APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Debt Reserve Account."

Debt Reserve Requirement. As of June 30, 2022, the Debt Reserve Requirement for all Outstanding Water and Wastewater Revenue Bonds based on maximum annual Debt Service Requirements (net of capitalized interest) prior to the issuance of the Bonds was approximately $183,313,463.83. The balance of cash and investments credited to the Debt Reserve Account (excluding Net Reserve Earnings transferred to the Residual Fund) as of June 30, 2022 was $190,013,789.74.

On the date of issuance of the Bonds, after the deposit of a portion of the proceeds of the Bonds to the Debt Reserve Account of the Sinking Fund, money on deposit in the Debt Reserve Account will satisfy the Debt Reserve Requirement for all Water and Wastewater Revenue Bonds outstanding, including the Bonds. In addition, as authorized in the General Ordinance, the City transferred a portion of estimated Net Reserve Earnings from the Debt Reserve Account to the Residual Fund as part of the 2022 Fiscal Year end closing process, as described in (10) of the waterfall contained in "– Priority and Application of Project Revenues" above.

Springing Amendments. The Springing Amendments include certain provisions that relate to the calculation and maintenance of the Debt Reserve Requirement. Upon issuance of the bonds, the City will be authorized to, among other things, determine at the time of issuance whether to secure a Series of Water and Wastewater Revenue Bonds by depositing monies into the Debt Reserve Account or a Series subaccount within the Debt Reserve Account solely for such Series of bonds. In connection with the issuance of the Bonds, monies shall be deposited into the Debt Reserve Account in order to meet the Debt Reserve Requirement. See "INTRODUCTORY STATEMENT – Springing Amendments to General Ordinance to Become Effective" herein and APPENDIX II-A and APPENDIX II-B of this Official Statement hereof.

The Springing Amendments also contain certain provisions that change the rating requirements to qualify a Credit Facility for deposit into the Debt Reserve Account to meet the Debt Reserve Requirement. The Springing Amendments further provide that if the City had previously deposited cash into the Debt Reserve Account to cure a deficiency caused by a downgrade or withdrawal of the ratings on such a Credit Facility, and subsequently that Credit Facility meets the new rating requirements contained in the Springing Amendments, no excess of the Debt Reserve Requirement will result. Thus, the cash that the City had previously deposited as described above will not be deemed to be in excess of the Debt Reserve Requirement and will not be available for other purposes.

Rate Stabilization Fund

Pursuant to the General Ordinance, as of June 30 of each Fiscal Year, the City may transfer (i) from the Rate Stabilization Fund to the Revenue Fund or (ii) from the Revenue Fund to the Rate Stabilization Fund, the amount determined by the Water Commissioner to be transferred for such Fiscal Year. For purposes of calculating Net Revenues, transfers from the Rate Stabilization Fund to the Revenue Fund are included in the calculation, whereas transfers from the Revenue Fund to the Rate Stabilization Fund are excluded from Net Revenues. As discussed above under "Water and Wastewater Funds – Interfund Loans," amounts on deposit in the Rate Stabilization Fund also may be loaned temporarily to the Revenue Fund to pay Operating Expenses under certain conditions. See also Table 9 – Philadelphia Water Department Historical Operating Results and APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Rate Stabilization Fund."

Residual Fund

Amounts on deposit in the Residual Fund may be used at the written direction of the City (i) to pay Operating Expenses; (ii) to fund transfers to any fund or account established under the General Ordinance or under a Supplemental Ordinance (other than the Revenue Fund and the Rate Stabilization Fund); (iii) to make payments required under any Exchange Agreement; (iv) for the payment of principal, redemption premium, if any, and interest on any revenue bonds or notes (the proceeds of which were applied in respect of the System) issued under the Act but not under the General Ordinance; (v) for the payment of principal, redemption premium, if any, and interest on any General Obligation Bonds; (vi) for the payment of principal, redemption premium, if any, and interest on other general obligation debt issued in respect of the System; (vii) for the payment of amounts due under capitalized leases or similar obligations relating to the System; and (viii) to fund a transfer to the City's "General Fund" in an amount not to exceed the lower of (A) all Net Reserve Earnings or (B) $4,994,000. See APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Residual Fund." In addition, as discussed above under "Water and Wastewater Funds – Interfund Loans," amounts on deposit in the Residual Fund also may be loaned temporarily to the Revenue Fund to pay Operating Expenses under certain conditions. For a discussion of certain policies that the Rate Board adopted, including for the target amount to be maintained in the Residual Fund, see "RATES – Philadelphia Water, Sewer and Stormwater Rate Board."

Additional Sources of Funds for Deficiencies in Sinking Fund

At the written direction of the City, the General Ordinance permits monies on account in the Capital Account of the Construction Fund and in the Residual Fund to be utilized to cure deficiencies in the Sinking Fund. See APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Construction Fund" and "– Residual Fund."

Rate Covenant

Under the General Ordinance the City has made certain covenants (collectively, the "Rate Covenant") concerning the City's imposition of rates and charges sufficient to support the System. The Rate Covenant requires, while any Water and Wastewater Revenue Bonds remain outstanding, the City to establish rents, rates, fees and charges for the use of the Water and Wastewater Systems to yield Net Revenues (defined below) in each Fiscal Year in sufficient amounts to satisfy the requirements of each of the three following coverage tests.

(1) Net Revenues will equal at least 1.20 times Debt Service Requirements, excluding Debt Service Requirements in respect of Subordinated Bonds ("Senior Debt Service") for such Fiscal Year.

(2) Net Revenues (recalculated to exclude any transfers from the Rate Stabilization Fund) will equal at least 90% of Debt Service Requirements (excluding Debt Service Requirements in respect of Subordinated Bonds) for such Fiscal Year ("90% Test").

(3) Net Revenues will equal at least 1.00 times the following payments and transfers to be made in such Fiscal Year ("Total Payments"): (i) the Debt Service Requirements (including Debt Service Requirements in respect of Subordinated Bonds); (ii) amounts required to be deposited into the Debt Reserve Account; (iii) debt service payable on General Obligation Bonds issued for the System; (iv) debt service due on Interim Debt; and (v) the Capital Account Deposit Amount, less any amounts transferred from the Residual Fund to the Capital Account. As of the date hereof, no Subordinated Bonds, General Obligation Bonds issued for the System or Interim Debt are outstanding.

"Net Revenues" for any period means: the Project Revenues collected during such period and deposited into the Revenue Fund plus (x) the amounts, if any, transferred from the Rate Stabilization Fund into the Revenue Fund as of the end of such period and (y) interest earnings during such period on monies in any of the funds or accounts established under the General Ordinance to the extent such interest earnings are credited to the Revenue

Fund pursuant to the General Ordinance, and minus the sum of (a) Operating Expenses incurred during such period and (b) the amounts, if any, transferred from the Revenue Fund to the Rate Stabilization Fund as of the end of such period; provided, however that in determining such Net Revenues, the Initial Deposit (as defined in APPENDIX II-A) shall not reduce such Net Revenues. To ensure compliance with the Rate Covenant, the General Ordinance requires that the City review its rents, rates, fees and charges promptly upon any material change in the circumstances which were contemplated at the time such rents, rates, fees and charges were reviewed, but not less frequently than once each Fiscal Year. For a discussion of the Water Department's experience in meeting the Rate Covenant, see "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Table 10" herein. Notwithstanding any future changes in the rate-making process, while any Water and Wastewater Bonds remain outstanding, the City is required to comply with the Rate Covenant.

2019 Report Not Included or Incorporated in this Official Statement and No Reliance Thereon

In connection with the enactment of the Twenty-Second Supplemental Ordinance, pursuant to the requirements of the Act and the General Ordinance, the City engaged Arcadis U.S. Inc. to conduct an engineering report dated as of April 1, 2019 (the "2019 Report"), providing the basis for the required findings that (i) Project Revenues will be sufficient to meet payment or deposit requirements for the operation of the System and payment of outstanding Water and Wastewater Revenue Bonds, including the Bonds, (ii) Net Revenues are sufficient to comply with the Rate Covenant and (iii) the System is in good operating condition.

The 2019 Report is not incorporated by reference herein and prospective purchasers of the Bonds should not rely upon it or any other prior engineering report in making a decision with respect to any purchase of the Bonds, nor should the 2019 Report or any other prior engineering report be construed as a contract with any holder of the Bonds or as an invitation or inducement to engage or otherwise participate in the proposed or any other transaction to provide financing or to make an investment.

Additional Bonds

The General Ordinance permits the issuance of additional bonds, which may be secured on a parity basis with the outstanding bonds issued thereunder. The General Ordinance imposes certain conditions precedent (which conditions have been met in connection with the issuance of the Bonds) to the issuance of additional bonds, including the delivery of an engineering report in connection with the adoption of the Twenty-Second Supplemental Ordinance concluding that 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 bonds are to be issued. Such conditions precedent to the issuance of additional bonds are described in APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Covenants of the City – Conditions of and Provisions Relating to Issuing 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, although 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 for amounts on deposit in the Sinking Fund, including the Debt Reserve Account. While the City has covenanted not to direct the Fiscal Agent to transfer Project Revenues other than as permitted under the General Ordinance, no requisition procedure or other similar procedure will be established for the expenditure of monies by the City from the Water and Wastewater Funds (other than the Sinking Fund, including the Debt Reserve Account), 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 such monies. 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 for which such monies are utilized.

The General Ordinance provides that if the City fails to make a deposit of Project Revenues as required under 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.

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% of the outstanding principal amount of any series of Water and Wastewater Revenue Bonds in default are described in APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Defaults and Remedies." In addition to the remedies set forth in the General Ordinance, Bondholders or a trustee therefor are entitled under the Pennsylvania Uniform Commercial Code to remedies as secured parties with respect to the Project Revenues and the funds on deposit in the Water and Wastewater Funds. See "CERTAIN INVESTMENT CONSIDERATIONS – Limited Recourse on Default" herein.

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. 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. See "CERTAIN INVESTMENT CONSIDERATIONS – Bankruptcy" herein.

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OUTSTANDING INDEBTEDNESS AND OTHER LONG-TERM AGREEMENTS

Outstanding Indebtedness

As set forth in the table below, $2,435,116,138 aggregate principal amount of Water and Wastewater Revenue Bonds are outstanding. Table 2 does not reflect the issuance of the Bonds or the Commercial Paper Notes Outstanding.

Table 2
Outstanding Indebtedness
as of June 30, 2022*

Series of Bonds	Original Principal Amount	Outstanding Principal Amount	Fixed/ Variable Rate	Year of Maturity
Pennvest 2009B	$ 42,886,030	$ 14,535,463	Fixed	2032
Pennvest 2009C	57,268,193	25,005,737	Fixed	2032
Pennvest 2009D	84,759,263	38,651,545	Fixed	2032
Pennvest 2010B	30,000,000	18,214,113	Fixed	2033
2013A	170,000,000	24,075,000	Fixed	2023
2014A	123,170,000	43,125,000	Fixed	2026
2015B	141,740,000	109,015,000	Fixed	2035
2016A	192,680,000	169,830,000	Fixed	2035
2017A	279,865,000	239,865,000	Fixed	2052
2017B	174,110,000	162,085,000	Fixed	2034
2018A	276,935,000	246,935,000	Fixed	2053
2019A	68,335,000	67,645,000	Fixed	2040
2019B	250,660,000	250,660,000	Fixed	2054
2020	127,740,000	127,740,000	Fixed	2040
2020A	201,530,000	201,530,000	Fixed	2050
2020B	95,025,000	91,885,000	Fixed	2035
Pennvest 2021A	80,821,155	11,173,671†	Fixed	2044
2021B	368,720,000	359,910,000	Fixed	2045
2021C	231,930,000	231,930,000	Fixed	2051
Pennvest 2021D	5,794,470	1,305,609	Fixed	2044
Pennvest 2022A±	16,301,250	-	Fixed	2045
Pennvest 2022B±	35,861,985	-	Fixed	2045
TOTAL	**$3,020,270,361**	**$2,435,116,138**		

* Excludes the issuance of the Bonds and the Commercial Paper Notes Outstanding. For information respecting the Water Department's Commercial Paper Notes Outstanding, see "CAPITAL IMPROVEMENT PROGRAM – Commercial Paper Program" herein.

† Does not reflect $5,219,250 of Pennvest 2021A proceeds drawn on or about July 1, 2022 for reimbursements of construction costs for the Torresdale project increasing the outstanding principal amount of Pennvest 2021A Bonds to $16,392,921.

± Proceeds of the Pennvest 2022A and the Pennvest 2022B Bond have not been drawn as of the date of this Official Statement and are not outstanding. For more information respecting the Pennvest Loans, see "CAPITAL IMPROVEMENT PROGRAM – Pennvest Loans" herein.

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Other Obligations

Contract for Biosolids Treatment with Philadelphia Biosolids Services, LLC

In 2008, the City entered into a long-term contract and lease with the Philadelphia Municipal Authority (the "PMA") for the PMA to operate the Water Department's existing Biosolids Recycling Center (the "Biosolids Recycling Center"). The PMA and Philadelphia Biosolids Services, LLC ("Philadelphia Biosolids") entered into a Service Agreement (the "Biosolids Service Contract"), pursuant to which Philadelphia Biosolids designed and built, and currently operates, a facility at the Biosolids Recycling Center to heat, dry and dispose of biosolids captured during wastewater treatment, and the PMA pays Philadelphia Biosolids for operating such Biosolids Recycling Center. Pursuant to a Service Agreement between the PMA and the City (the "City Service Contract"), the City assumed all of PMA's obligations under the Biosolids Service Contract. The obligations under the City Service Contract constitute Operating Expenses of the Water Department. In Fiscal Years 2020 and 2021, the City paid to PMA, from revenues generated from the Water Department, \$20,157,471 and \$24,950,810 respectively. The Water Department's budgeted obligation for Fiscal Year 2022 is approximately \$26,819,000 and \$27,854,000 for Fiscal Year 2023. The City Service Contract contains adjusters for the Consumer Price Index, Producer Price Index and fluctuations in fuel prices, among others; thus, expenditures under the City Service Contract may vary over time. The Biosolids Service Contract expires on February 10, 2032 and contains the possibility of a five-year renewal term at the option of the City. In addition to facilitating compliance with various state and federal environmental regulations, including the Clean Air Act, the Biosolids Service Contract has produced cost savings for the Water Department. See "THE SYSTEM – The Wastewater System – Environmental Compliance – Clean Air Act and – Biosolids Treatment and Utilization."

Northeast Water Pollution Control Plant Cogeneration Facility

In 2011, the City entered into a long-term contract and lease with the PMA for the PMA to arrange the construction, financing, maintenance and sublease of a digester gas cogeneration facility at the Northeast Water Pollution Control Plant. The PMA entered into a lease (the "Lease") with BAL Green Biogas I, LLC, a special purpose entity of Bank of America (the "Lessor"), which requires the PMA to make certain lease payments to the Lessor. Pursuant to a sublease dated December 23, 2011 (the "Sublease"), the City assumed all of the PMA's obligations under the Lease. The obligations under the Sublease constitute Operating Expenses of the Water Department. In Fiscal Years 2020 and 2021, the City paid to the Lessor from revenues generated from the Water Department, \$4,537,041 and \$6,103,316 respectively. The Water Department's budgeted obligations for Fiscal Year 2022 were approximately \$5,660,000 and its budgeted obligations for Fiscal Year 2023 are approximately \$7,150,000. Expenditures, including maintenance fees, may vary during the term of the Sublease. The Sublease expires on September 25, 2029, unless renewed by PMA for an additional term of eighteen months.

Contract for Advanced Meter Reading Infrastructure

In February 2019, the City, through PMA, entered into a contract with Sensus USA Inc. ("Sensus") for the delivery of an advanced metering infrastructure ("AMI") system for water meter reading, including installation, operation and maintenance of the AMI system. Since September of 2019 Sensus has assumed the meter reading services formerly provided by ITRON. The installation of the AMI system and communications network was completed on February 12, 2020. The deployment phase, during which Automatic Meter Reading ("AMR") equipment will be replaced with AMI units, was expected to take approximately 24 months but has been delayed significantly. The deployment phase commenced on March 15, 2021, and on May 4, 2021, Sensus notified the City of a force majeure event citing a shortage of certain product parts caused by the COVID-19 pandemic. The City provided written notice to Sensus disagreeing with their claim of force majeure under the contract but acknowledging the product shortage issues. Delays in deployment are ongoing and are expected to continue. As of June 30, 2022, 163,029 units have been installed out of 485,000. The potential duration of such delays is currently unknown. The costs for installation and deployment are included in the Water Capital Improvement Program. See "CAPITAL IMPROVEMENT PROGRAM."

After the initial installation and deployment phase, the AMI operations and maintenance term of the contract will begin for a term of 20 years, with the option to renew for up to three additional one-year terms. Payments to Sensus constitute Operating Expenses of the Water Department. In Fiscal Year 2020, the Water Department paid $1,245,661 for services and $2,808,681 for equipment. In Fiscal Year 2021, the Water Department paid $897,885 for meter reading services and $2,405,609 for the purchase and installation of new water meters. The budgeted obligation for Fiscal Year 2022 was approximately $3.2 million for meter reading services and $5.0 million for the purchase and installation of new water meters. The budgeted obligation for Fiscal Year 2023 is approximately $4.7 million for meter reading services and $5.0 million for the purchase and installation of new water meters.

THE WATER DEPARTMENT

General

The City established the Water Department to operate, maintain, repair and improve the Water and Wastewater Systems. The Charter requires that rates and charges for supplying water and for wastewater treatment be fixed and regulated 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 Requirements on any debt incurred or to be incurred for the Water and Wastewater System, including general obligations and revenue bond obligations, and proportionate charges for all services performed for the Water Department by all officers, departments, boards or commissions of the City. See "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Table 10" below. The Charter also authorizes the Water Department, with the approval 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 of and Rate Covenant compliance for, the Water and Wastewater Systems. See APPENDIX I – "FINANCIAL STATEMENTS OF THE WATER FUND DERIVED FROM THE CITY'S AUDITED ANNUAL COMPREHENSIVE FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2021" attached hereto.

Relationship to the City

The Water Department is one of the City's operating departments and is overseen by the Office of the Managing Director. Various City departments and agencies provide operational support to the Water Department, for which they receive a direct appropriation at the beginning of each Fiscal Year (a "Direct Appropriation"), which provides a portion of the funding for such department or agency from the Water Department's operating budget. The departments that receive Direct Appropriations from the Water Department 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 and parking; the Office of Fleet Management for vehicle acquisition, fuel, and vehicle maintenance; the Office of Innovation and Technology for communications and computer support services; the Procurement Department for services related to the acquisition of goods and services; the Office of the Director of Finance for fringe benefits, indemnities and support services; the Sinking Fund Commission for the payment of debt service; the Office of Sustainability for energy procurement services; and the Office of Transportation and Infrastructure Systems. The Rate Board also receives a Direct Appropriation from the Water Department.

In addition, approximately 15 City departments and agencies, including the Revenue Department and the Department of Public Property, provide services to the Water Department for which they bill the Water Department at the close of each Fiscal Year ("Interfund Charges"). These services are distinct from the ones discussed in the previous paragraph and include, but are not limited to, cash management (City Treasurer); auditing (City Controller); debt management (City Treasurer); testing and hiring (Human Resources and Labor

Relations); and other support services (Managing Director's Office, Civil Service Commission, Department of Licenses & Inspections, and Police Department).

All Direct Appropriations and Interfund Charges are accounted for in the historical operating results in Table 9 and factored into the forecast in Table 11. See also "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – The Water Department's Budget."

The City is the largest customer of the Water Department. The City, through the General Fund and the Aviation Fund, pays the Water Department for water and wastewater services, maintenance of the fire system (consisting of hydrants system capacity and pumping stations), inlet cleaning and snow removal. Such payments are credited to the Water Fund for each Fiscal Year as of the last day of such Fiscal Year, and payment occurs on or before October 31 in the same calendar year. See "THE SYSTEM – Large Customers" herein and APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA" attached hereto.

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 then appoints deputies with the approval of the City's Managing Director. Substantially all other employees of the Water Department are hired pursuant to the City's Civil Service Regulations.

Under the Charter, 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:

Randy E. Hayman was appointed Water Commissioner on May 13, 2019. He is tasked with overseeing the Water Department. Prior to joining the Water Department, he served fifteen (15) years as the General Counsel for two major water/wastewater systems – the Metropolitan St. Louis Sewer District and the District of Columbia Water and Sewer Authority. In addition, Mr. Hayman served as an Assistant Attorney General for the state of Missouri and has practiced law in the private sector at highly respected law firms. Most recently, he was a partner at the law firm of Beveridge & Diamond, P.C., a top-tier environmental law firm. Throughout his career, Mr. Hayman has worked to solve similar water and wastewater utility challenges to those presently faced by the Water Department, including, but not limited to, successfully negotiating agreements with regulatory agencies to address wastewater system issues related to combined sewer overflows, as well as implementing large water and wastewater capital improvement plans, while managing financial performance and balancing the effects of customer rates and charges. He is a graduate of the University of Michigan and the Georgetown University Law Center.

Glen Abrams was appointed Deputy Water Commissioner of Communications and Engagement in September 2019. Most recently from 2001 to 2013, Mr. Abrams worked for the Water Department as a Policy and Strategic Planning Manager with the Water Department's Office of Watersheds. He has worked for the Pennsylvania Horticultural Society ("PHS") since 2013 and most recently served as the Senior Director of Planning and Sustainable Communities for PHS. He holds a B.A. and an M.A. in City and Regional Planning, both from Ohio State University.

Marc Cammarata was appointed Deputy Water Commissioner for Planning and Environmental Services in November of 2016. His responsibilities include the integration, direction and management of numerous aspects of the Water Department's planning initiatives, including strategic environmental and sustainability programming, water quality and quantity modeling, wet weather compliance, flood mitigation, both green and traditional infrastructure planning, stream and wetland restoration, watershed and source water protection, laboratory services, and climate mitigation and adaptation efforts. He has over 24 years of experience in water resources engineering and environmental planning. He is a Professional Environmental Engineer with a B.S. in Civil and Environmental Engineering from Villanova University and a M.S. in Environmental Engineering, Water Resources from Drexel University.

Susan M. Crosby was appointed to the position of Deputy Revenue Commissioner in charge of the Water Revenue Bureau in November 2020. Prior to her appointment as Deputy Revenue Commissioner, Mrs. Crosby worked as a Divisional Deputy City Solicitor for the City's Law Department. Mrs. Crosby has a Bachelor of Science in History and Political Science from Florida State University. She received her Juris Doctorate from Stetson University College of Law and has practiced law in Florida (inactive) and Pennsylvania for twenty years.

Stephen J. Furtek was appointed General Manager of Planning and Engineering (now Engineering and Construction) in March 2005. Mr. Furtek is a registered Professional Engineer and holds a B.A. in Civil and Urban Engineering from the University of Pennsylvania. He has held a number of increasingly responsible positions since joining the Water Department in 1982, including Supervisor of the Water and Sewer Design Section and Manager of the Design Branch.

Ji Y. Jun was appointed Divisional Deputy City Solicitor and General Counsel to the Water Department in September 2020. She has served as counsel to the Water Department since 2007, handling complex commercial transactions, contracts, environmental law compliance and enforcement, real estate matters, regulations and rate cases. Ms. Jun joined the City of Philadelphia Law Department in 2006 as counsel to the Philadelphia International Airport. Ms. Jun is a graduate of University of Pennsylvania (B.A., 2000) and Villanova University School of Law (J.D., 2006). She is admitted to practice in Pennsylvania and New Jersey.

Melissa LaBuda was appointed Deputy Water Commissioner in August 2014 and Assistant Deputy Commissioner in October 2013. Ms. LaBuda has overall responsibility for the Water Department's financial management including accounting operations and financial reporting; budget formulation and execution; and financial planning. Ms. LaBuda joined the Water Department from a global financial institution where she was an investment banker to Public Power and Combined Utility systems. Previously, Ms. LaBuda worked for Public Financial Management, Inc. (now PFM Financial Advisors LLC) as both a financial advisor and a fixed income trader. In these roles, Ms. LaBuda has raised in excess of $25 billion in the capital markets. Ms. LaBuda received a B.S. from Bloomsburg University.

Gerald D. Leatherman was appointed Deputy Water Commissioner for Human Resources & Administration in April 2013. Since March 2008, Mr. Leatherman was Divisional Deputy City Solicitor and General Counsel to the Water Department. He joined the City's Law Department in 2003, serving as a Deputy City Solicitor in the Housing Code Enforcement and Neighborhood Transformation Divisions. Prior to that, Mr. Leatherman worked in the General Counsel's Office of the Philadelphia Housing Development Corporation and in private practice. Mr. Leatherman received a B.A. from American University and a J.D. from the Temple University Beasley School of Law.

Donna Schwartz was appointed Deputy Water Commissioner in March 2016. She is principally responsible for managing the Water Department's Operations Division. She has served the Water Department for 36 years in various capacities. Since her initial appointment with the Water Department in 1982, Ms. Schwartz has held a number of increasingly responsible engineering and managerial positions, such as program manager in industrial waste and plant manager in water treatment. She has a B.S. in chemical engineering from Drexel University, a professional engineer's license from Pennsylvania and is a certified plant operator. Ms.

Schwartz expects to retire in January 2023. The Water Department is currently conducting a search for a new Chief Operating Officer/Deputy Commissioner of Operations upon Ms. Schwartz's retirement.

In addition to the senior management team above, the Water Department hires other assistant deputy commissioners to support various divisions within the Water Department. Additionally, the role of Deputy Water Commissioner charged with environmental compliance is vacant and currently overseen by various members of the management team.

Personnel Information

As of June 30, 2021, the Water Department employed approximately 2,167 full-time employees (this figure excludes seasonal workers), of whom 1,538 are represented by District Council 33 and 420 by District Council 47, both of the American Federation of State, County and Municipal Employees. The balance (209 full-time employees) represents the Water Department's upper management, supervisory and senior engineering and administrative personnel who are not eligible for union membership. The wages and salaries of approximately 200 employees in the Water Revenue Bureau are funded by the Water Department. Water Revenue Bureau employee participation in unions parallels that of the Water Department. For a discussion of the Water Department's contributions to the pension plans, see "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Pension Obligations of the Water Department." For information on the status of arbitration awards and labor contract settlements and certain retirement plan information, see APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Expenditures of the City – Overview of Current Labor Situation." For more information respecting the current status of the City's collective bargaining agreement with District Council 33, see APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Expenditures of the City – Overview of City Employees."

THE SYSTEM

The Water Department provides water and wastewater services (which includes stormwater services) to residents and businesses located in the City. Additionally, the Water Commissioner is authorized to enter into agreements with municipalities, townships, authorities and entities outside the limits of the City to provide for the sale of fresh water or the receipt, conveyance, treatment and disposal of wastewater. The Water Department currently has ten wholesale wastewater contracts and one wholesale water contract. The following sections describe the largest customers of the Water Department, the Water Department's wholesale contracts and the System, including certain environmental matters.

Large Customers

The ten largest customers of the Water Department for water and wastewater services, which include stormwater services, for Fiscal Year 2021 are set forth in Table 3 below. The Water Department does not charge itself or include in revenue the retail value of the water and wastewater services (including stormwater services) used by the Water Department.

The City is the largest customer of the Water Department. 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 services provided to City properties and for operation and maintenance of the fire system (consisting of hydrants and pumping stations).

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Table 3
Top 10 Customers
Fiscal Year Ending June 30, 2021

	Customer	Revenue ($)	% Total Revenue*
1	City of Philadelphia**	$20,961,277.81	2.76%
2	Philadelphia Housing Authority	13,389,342.11	1.77
3	Vicinity Energy Philadelphia***	7,478,187.67	0.99
4	University of Pennsylvania	7,200,884.01	0.95
5	School District of Philadelphia	5,483,430.11	0.72
6	AdvanSix Inc.	5,474,657.42	0.72
7	SEPTA	5,205,549.88	0.69
8	Federal Government	5,179,387.52	0.68
9	Temple University	3,832,857.53	0.51
10	University of Pennsylvania Health System	3,463,064.59	0.46
	TOTALS****	**$77,668,588.65**	**10.24%**

* The percentage of Total Revenue is calculated using the yearly revenue received by the customer divided by the total yearly revenue of the Water Operating Fund. The total revenue for Fiscal Year 2021 was $758,587,468.
**The total above for the City of Philadelphia includes, among others, charges for water, wastewater and stormwater services paid from the following sources: (i) $16,910,529.29 – General Fund and (ii) $4,050,748.52 – Aviation Fund.
***Previously known as Veolia Energy Philadelphia. Vicinity has proposed replacing its City water services with additional intake from the Schuylkill River but would still receive wastewater services from the Water Department. Although no estimates as to its future ranking are available at this time, once the project is complete, Vicinity *may* no longer be a Top 10 customer of the Water Department.
****Totals may not add due to rounding.

Wholesale Customers. The Water Department generates approximately 5.70% of total revenues from wholesale wastewater and water customers (the "Wholesale Customers"). Table 4 on the following page presents revenues as of June 30, 2021 from Wholesale Customers and describes certain terms of the Water Department's wholesale contracts for wastewater and water services, respectively. The last column on Table 4 sets forth each Wholesale Customer's proportional share of the Water Department's expenditures relating to its Consent Order and Agreement with the PADEP (the "COA Expenditures"). For more information regarding the Water Department's Consent Order and Agreement and its associated costs, see "THE SYSTEM – The Wastewater System – Environmental Compliance – Combined Sewer Overflow Program" below. Revenues for Fiscal Years 2020 and 2021 from Wholesale Customers were approximately $39.3 million and $39.1 million, respectively, for wastewater services and $3.8 million and $4.2 million, respectively, for water services. Budgeted revenues from Wholesale Customers for Fiscal Years 2022 and 2023 are approximately $40 million and $39.8 million, respectively, for wastewater services and $3.85 million for water services for each fiscal year.

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Table 4
Preliminary Wholesale Water and Wastewater Customer Revenues and Contract Terms
Fiscal Year Ending June 30, 2021

	Total Revenue	%Total Revenue*	Contract End Date	COA%**
Wastewater				
Bucks County Water & Sewer Authority (BCWSA)[(1)]	$9,047,915.70	1.19%	3/31/2038	N/A
BCWSA – Springfield Township[(1)(2)]	2,306,429.25	0.30	6/30/2023	0.79%
BCWSA – Bensalem [(1)]	1,363,834.60	0.18	6/30/2023	N/A
BCWSA Total [(1)]	$12,718,179.55	1.68%		0.79%
Delcora [(3)]	$9,415,281.16	1.24%	4/1/2028	9.44%
Aqua Pennsylvania Wastewater, Inc.[(4)]	4,437,076.44	0.58	6/30/2025	2.43%
Lower Southampton	4,071,888.44	0.54	6/30/2024	0.96
Upper Darby Township	3,121,364.44	0.41	8/8/2023	N/A
Lower Merion Township[(5)]	2,731,477.47	0.36	N/A	N/A
Abington Township	1,576,223.35	0.21	6/30/2023	0.58
Lower Moreland Township	1,030,402.8	0.14	6/30/2025	0.36
Sub-total	$39,101,893.65	5.15%		14.57%
Water				
Aqua Pennsylvania	$4,181,076.78	0.55%	3/1/2026	N/A
Sub-total	$4,181,076.78	0.55%		
Total Wholesale Revenues* **	**$43,282,970.43**	**5.70%**		

Note: The Water Department includes capital charges within operation and maintenance charges for all customers except Bensalem, Lower Merion, and Upper Darby.

*The percentage of Total Revenue is calculated using the yearly revenue received from the municipality or the authority divided by the total yearly revenue of the Water Operating Fund. The total revenue for Fiscal Year 2021 was $758,587,468.

**COA% or Consent Order and Agreement percentage is the Township's share of expenses for the Long-Term Control Plan to mitigate combined sewer overflows.

***Totals may not add due to rounding.

(1) Bucks County Water and Sewer Authority purchased the wastewater collection and disposal system of Springfield Township in December 2015 and purchased the wastewater collection system of Bensalem in September 1999. Aqua PA Wastewater, Inc., an Essential Utilities Company ("Aqua PA Wastewater") has offered to purchase Bucks County Water and Sewer Authority's wastewater assets.
(2) The COA% reflects the total amount for Wyndmoor and Erdenheim combined.
(3) For more information on the wholesale wastewater contract with Delcora, see "THE SYSTEM – The Wastewater System – Delaware County Regional Water Quality Control Authority ("DELCORA")" herein.
(4) Cheltenham Township sold its sewer system to Aqua PA Wastewater in December of 2019. The Water Department's contract with the township was transferred to Aqua PA Wastewater in connection with the sale.
(5) The contract for wastewater services with Lower Merion Township does not contain an end date.

The Water System

General

The Water System's service area includes the City. The Water System has one wholesale water service contract (see Table 4 – Wholesale Water and Wastewater Customer Revenues Fiscal Year Ending June 30, 2021 above). Based on the 2021 U.S. Census Bureau estimate, the Water System served 1,603,797 individuals.

As of June 30, 2021, the Water System served approximately 505,000 active customer accounts using approximately 3,100 miles of mains and approximately 25,000 fire hydrants. Customer accounts have been stable the past several years, but consumption patterns and collections are expected to continue to be negatively affected in Fiscal Year 2022 and Fiscal Year 2023 as a result of the COVID-19 pandemic. See "RATES – Current Base Rates, 2021 Rate Proceeding and 2022 Special Rate Proceeding" and " – Billing and Collections" herein.

The City obtains approximately 56.8% of its water from the Delaware River and the balance from the Schuylkill River. Under the City's water allocation permit issued by the PADEP, which expires in September 2041, the City is authorized to withdraw up to 423 million gallons per day ("MGD") from the Delaware River and up to 258 MGD from the Schuylkill River.

Water treatment is provided by the Samuel S. Baxter Water Treatment Plant ("Baxter Water Treatment Plant") on the Delaware River and by the Belmont and Queen Lane Water Treatment Plants on the Schuylkill River. The combined rated treatment capacity of these plants under the Water Department's Partnership for Safe Water procedures is 546 MGD. The combined maximum source water withdrawal capacity from the two rivers that supply these plants is 680 MGD. The excess source water capacity enables higher than normal withdrawal from either river should conditions limit withdrawals from one. The usable storage capacity for treated and untreated water in the combined plant and distribution system totals 953 million gallons ("MG"). In Fiscal Year 2021, the Water System distributed 82,746 MG of water at an average daily rate of 226.7 MG. In Fiscal Year 2021, the maximum day delivery experienced by the Water System in one day was 256.9 MG.

Baxter Water Treatment Plant Clear Well Basin

The Baxter Water Treatment Plant is the Water Department's largest water treatment facility. Its current clear water basin (the "CWB") contains 50MG of water, which is supplied to the Lardner's Point Pump Station. In February 2017, the Water Department commenced construction to replace the existing CWB with four 5MG basins. Construction is expected to be completed in two phases and take five and a half years to complete. The first phase (construction of the first two basins) is complete and is estimated to cost approximately $115 million. The second phase (construction of the remaining two basins) is expected to commence in Fiscal Year 2023, after the first two basins are placed in service, and is estimated to cost approximately $125 million.

Recently, the PADEP issued a field order to the Water Department with requirements for additional monitoring of the existing CWB basin to continue until the existing CWB is decommissioned. The existing CWB will be decommissioned after completion of construction and placement into service of the first two 5MG basins described above. See "THE SYSTEM – The Water System – Environmental Compliance – Drinking Water Regulatory Matters" below for more information regarding required ongoing monitoring and sampling requirements at the existing CWB.

Wholesale Contracts

The Water Department has a wholesale contract for water services with Aqua Pennsylvania, Inc. ("AP") under which the Water Department has agreed to provide wholesale water service through March 1, 2026. For wholesale water customer revenues for Fiscal Year 2021, see Table 4 – Wholesale Water and Wastewater Customer Revenues Fiscal Year Ending June 30, 2021.

Environmental Compliance

General

The Water System is subject to various environmental laws and regulations, and from time to time, receives notices of violations of such environmental laws and regulations. As a result of such violations, the Water Department has incurred minor fines from time to time.

Drinking Water Regulatory Matters

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 (the "EPA") under the federal Safe Drinking Water Act and by the PADEP. The EPA required a second round of source water sampling for the Long Term 2 Enhanced Surface Water Treatment Rule beginning in April 2015 to measure the concentration of *Cryptosporidium* present at the intakes of the three water treatment plants. Observed *Cryptosporidium* concentrations categorize each intake into one of four "BINS." Public water systems placed in "BIN 1" indicate the lowest concentrations of *Cryptosporidium* and require no additional treatment. Public water systems placed in "BIN 2," "BIN 3" and "BIN 4" require increasing levels of treatment, with "BIN 4" requiring the most treatment. The first round of sampling resulted in the Queen Lane Water Treatment Plant being classified in the "BIN 2" category in 2008. The second round of sampling resulted in the Baxter Water Treatment Plant being classified in the "BIN 2" category in 2018. The Water Department currently has a Watershed Control Program Plan in place for the Schuylkill River Watershed to better manage sources of *Cryptosporidium* upstream of the Queen Lane Water Treatment Plant. A similar plan was developed for the Delaware River Watershed to support compliance at the Baxter Water Treatment Plant. The updated Watershed Control Program Plan targets the same priority sources: agricultural operations, wildlife, and wastewater treatment plant effluent through a combination of on-the-ground projects, research, and education and outreach initiatives. The Water Department submitted the updated Watershed Control Program Plan to PADEP in October 2020 and received formal approval in June 2021.

The Water Department continues to prepare for possible future regulations regarding the distribution system using a variety of tools that allow the Water Department to track water through the Water System. The Water Department also is actively involved in monitoring, commenting on, and implementing practices to respond to rules and regulations for water systems enacted by the PADEP and the EPA. The Water Department submitted its Risk and Resilience Assessment certification as required under AWIA in March 2020 and submitted its Emergency Response Plan certification in September 2020.

On August 9, 2021, the PADEP issued a field order to the Water Department to address deteriorated manhole covers found on the roof of the existing CWB at the Baxter Water Treatment Plant. As of the date of this Official Statement, the Water Department has complied with the corrective actions required under the field order and continues to comply with ongoing monitoring and sampling requirements. These ongoing requirements are expected to continue until the two 5MG basins being constructed as part of the first phase of construction are operational at the Baxter Water Treatment Plant. Once the first two basins are complete and placed in service, the existing CWB will be decommissioned. For a discussion of the Baxter Water Treatment Plant, see "THE SYSTEM – The Water System – Baxter Water Treatment Plant Clear Well Basin" above.

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Lead and Copper Rule

Pursuant to the federal Safe Drinking Water Act, the Water Department conducts Lead and Copper Rule ("LCR") monitoring as required by the EPA and PADEP. In February 2016, the EPA re-issued guidance for public water systems regarding LCR tap sampling procedures, and in May 2016, the PADEP endorsed the EPA's guidance. The Water Department follows such guidance.

In connection with LCR monitoring in 2019, to secure more sampling, the Water Department conducted a mail recruitment campaign that reached all residential customers. The Water Department also directly contacted customers that had participated in prior LCR testing and partnered with a community service organization to conduct outreach in underserved areas of the City. The Water Department's efforts resulted in 199 responses, and 99 customers completed testing in 2019. Regulatory action levels are 15 parts-per-billion ("ppb") for lead and 1.3 ppm for copper. Results for ninety percent (90%) of the homes were less than 3 ppb for lead and less than 0.279 ppm for copper, which are below the action levels set by the regulation. The Water Department is on a reduced monitoring schedule due to consistent results below regulatory action levels for lead and copper. Monitoring is conducted every three years. The current round of LCR sampling commenced in the summer of 2022. The Water Department continues its robust communication efforts with customers. During 2022 LCR recruitment effort, the Water Department used information on lead service lines from previous sampling efforts and records collected from the AMI program. 2,632 customers were contacted, including new and past participants. At this time, the Water Department cannot predict the outcome of the 2022 LCR monitoring because the sampling period will continue through September 30, 2022.

On October 13, 2019, the EPA released proposed revisions to the LCR (the "LCRR") and the final LCRR was published in the Federal Register on January 15, 2021. Since then, the EPA has delayed the original LCRR effective date of March 16, 2021 to December 16, 2021 and the original compliance date of January 16, 2024 to October 16, 2024. The LCRR will have a significant effect on the Water Department's operations by requiring substantial new efforts in lead public education and notification; sampling and testing; and development and maintenance of an inventory of service lines. Additionally, EPA is developing Lead and Copper Rule Improvements (LCRI) regulations, which are expected to be promulgated in 2024. The Water Department will continue evaluating the effects of implementing the LCRR requirements on its operations and will take the necessary steps to prepare for full compliance with the rule revisions by the new compliance date of October 16, 2024.

Storage Tank and Spill Prevention Act

Under the Pennsylvania Storage Tank and Spill Prevention Act and regulations adopted thereunder, field-constructed underground storage tanks were required to be registered with the PADEP by February 20, 2019. Such tanks must comply with certain other regulatory requirements by December 22, 2019. The new registration and regulatory requirements apply to five field-constructed underground storage tanks at the Water Department's Belmont and Queen Lane water treatment plants. The Water Department did not register these field-constructed underground storage tanks with PADEP until March 20, 2019 and previously advised PADEP that it would not meet all of the regulatory requirements effective December 22, 2019. As a result, the Water Department entered into a Consent Order and Agreement with PADEP on June 3, 2019, pursuant to which the Water Department agreed to close, upgrade or perform a change-in-service of its underground storage tanks by December 31, 2020. The original Consent Order and Agreement deadline was extended from June 30, 2020 to December 31, 2020 at the Water Department's request. The Belmont water treatment plant completed all the requirements in the Consent Order and Agreement before the original deadline of June 30, 2020. PADEP agreed to further extend the compliance deadline for the Queen Lane water treatment plant to June 30, 2021. Queen Lane reached full compliance with the Consent Order and Agreement by the extended deadline of June 30, 2021.

PFAS

Per- and polyfluoroalkyl substances ("PFAS") are a family of synthetic compounds that are water soluble and persistent in the environment in air, water, and soil. PFAS are used in a variety of manufacturing processes and are used in the production of a wide range of industrial and household applications. The EPA has stated that, based on peer-reviewed studies on laboratory animals and epidemiological evidence in human populations, exposure to certain levels of Perfluorooctanoic acid ("PFOA") and Perfluorooctanesulfonic acid ("PFOS"), two types of PFAS compounds, may result in adverse health effects.

In February 2022, the PADEP published a proposed rule to set maximum contaminant levels (MCLs) in drinking water for PFOA and PFOS. The proposed rule would set an MCL of 14 parts per trillion (ppt) for PFOA and an MCL of 18 ppt for PFOS, which at the time of the proposal were stricter limits compared to the EPA's lifetime Health Advisory Level (HAL) of 70 ppt for PFOS and PFOA combined. On June 15, 2022, the EPA announced a new health advisory, which is not a regulation, significantly lowering the advisory limits for PFPA and PFOS.

The Water Department has been and continues to monitor and sample to detect PFAS levels in drinking water. Given the significant change to the health advisory level recently announced by the EPA, the Water Department is carefully evaluating the new recommendations and how to best address them. The Water Department may experience increased capital expenditures and maintenance costs in order to comply with such regulations.

The Wastewater System

General

The Wastewater System's service area includes the City. The Water Department has ten wholesale wastewater service contracts (see Table 4 – Wholesale Water and Wastewater Customer Revenues Fiscal Year Ending June 30, 2021). Based on the 2020 U.S. Census Bureau estimate, the Wastewater System served 1,603,797 individuals that live in the City and ten wholesale contracts.

As of June 30, 2021, the Wastewater System served approximately 544,000 accounts, including approximately 51,000 stormwater-only accounts (see "THE SYSTEM – The Wastewater System – Stormwater Management Services" below), and ten wholesale contracts with neighboring municipalities and authorities and one corporation. Customer accounts have been stable the past several years and are expected to remain stable in Fiscal Year 2023.

The Wastewater System consists of three water pollution control plants, the Northeast, Southwest and Southeast water pollution control plants (the "WPCPs"), 29 pumping stations, approximately 3,700 miles of sewers, and a privately managed centralized biosolids handling facility. It includes approximately 1,850 miles of combined sewers, 770 miles of sanitary sewers, 750 miles of stormwater sewers, 16 miles of force mains (sanitary and storm) and approximately 330 miles of appurtenant piping. The three WPCPs processed a combined average of 444 MGD of wastewater in Fiscal Year 2021 and have a 522 MGD combined average design capacity and a 1,059 MGD peak capacity.

Stormwater Management Services

The Water Department delivers many of the City's stormwater management services, including maintenance of the City's approximately 750 miles of separate storm sewers, 1,850 miles of combined sewers and 71,500 stormwater 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.

Wastewater & Stormwater Regulations, Permits and Awards

Wastewater

The Clean Water Act requires cities, like Philadelphia, whose separate storm sewer systems serve a population of over 100,000 to obtain a permit from the National Pollutant Discharge Elimination System ("NPDES") for their discharges. The EPA has delegated the NPDES program for the Commonwealth to the PADEP. In addition to the Clean Water Act, the City and its WPCPs are subject to regulation by the PADEP, which exercises regulatory authority over municipal sewage treatment operations, and by the Delaware River Basin Commission ("DRBC"), which exercises regulatory authority over withdrawals from and discharges into the Delaware and Schuylkill Rivers. The City's NPDES permits require reduction of pollution from commercial and residential areas, illicit connections, industrial facilities and construction sites. The NPDES permits also prescribe effluent limits for the City's three wastewater treatment plants and require implementation of combined sewer overflow control measures such as "nine minimum controls" and the City's Long-Term Control Plan Update discussed herein. These control measures manage and treat the excess stormwater and wastewater mix that discharges directly into local waterways during certain precipitation events. See – "Environmental Compliance – Combined Sewer Overflow Program" below.

The City has three NPDES permits, one each for the Northeast, Southeast and Southwest WPCPs. All three of these permits expired on August 31, 2012. The facilities are operating under an administrative extension of the expired permits, as dictated by PADEP policy. The expired NPDES permits will remain in place until new permits are issued. The City submitted applications for renewals to the PADEP in February of 2012, in advance of the expiration date, and has commented on draft forms of the permits received from the PADEP. The PADEP recently notified the Water Department that it intends to resume review of the Water Departments three NPDES renewal applications for the Northeast, Southwest and Southwest WPCPs. The PADEP has requested that the Water Department complete two rounds of specialized influent and effluent sampling at the three WPCPs and further requested that the Water Department submit new permit renewal application forms given that the forms previously submitted are about 10 years old. The Water Department intends to comply with these requests in a timely manner. See " – Environmental Compliance – Combined Sewer Overflow Program" below for a discussion respecting the interplay between the NPDES permits and the Water Department's obligations under its Consent Order and Agreement to mitigate combined sewer overflows.

On April 1, 2022, the Water Department submitted Peak Performance Award applications to the National Association of Clean Water Agencies ("NACWA") pertaining to the performance and permit compliance of all three of the Water Department's water pollution control plants. The awards applied for were: Gold Award for the Northeast WPCP for perfect permit compliance during the previous (2021) calendar year, Platinum 22 Award for the Southeast WPCP for perfect permit compliance for 22 consecutive years through 2021, and Gold Award for the Southwest WPCP for 2021. The Water Department expects to receive these awards during the summer of 2022. In 2021, two of the three WPCPs were recognized by NACWA for excellent performance during the 2020 calendar year. Previously, the Southeast WPCP received the Platinum 21 Award and the Northeast Plant received the Gold Award. NACWA's Peak Performance Awards Program recognizes excellence in wastewater treatment as measured by compliance with NPDES permits. Platinum Awards pay special tribute to facilities that have been awarded five or more consecutive Gold Awards, which recognize 100% compliance for the calendar year. As of April 2021, the Southeast WPCP has achieved 100% compliance for the past 21 years. The Northeast WPCP received one violation in June 2018 (which resulted in the Silver Award) but had achieved perfect compliance for the prior 13 consecutive years as of May 31, 2018 and has achieved perfect compliance again for calendar years 2019 and 2020. The Southwest WPCP was non-compliant in the months of March, April, and August 2020 due, in part, to reduced staffing on account of the COVID-19 pandemic, which produced slower response times to equipment failures and process disruptions. Prior to 2020, the Southwest WPCP had achieved perfect compliance (Platinum 9 Award) for nine consecutive years.

Stormwater

The Clean Water Act requires cities, like Philadelphia, whose separate storm sewer systems serve a population of over 100,000 to obtain an NPDES permit for their discharges, known as a Municipal Separate Sewer Systems (MS4) permit. The City's MS4 permit expired in 2010. The City submitted an application for renewal to the PADEP in 2010 and is in negotiations with the PADEP respecting the permit requirements. The City continues operating under an extension of the expired permit, as dictated by the policies of the PADEP, which will remain in place until a new permit is issued.

The WPCPs are inspected annually by the PADEP. During 2021, no violations were noted at any of the three WPCPs. Thus far in 2022, the Northeast and Southeast WPCPs have been inspected by PADEP and neither plant has had any violations as of the date of inspection.

Wholesale Contracts

Contracts for wastewater treatment service with neighboring municipalities, authorities and Aqua PA Wastewater provide for charges based on operating costs attributable to the volume and strength of the wastewater received from each of these customers. The contracts of wholesale wastewater customers have different expiration dates. As these contracts have been extended or amended, management fees have increased from 10% to 12%. The way customers are billed for capital costs has changed from paying a proportionate share of facility investments to paying depreciation and return on investment on a monthly basis. Wholesale Customers have also been assigned their proportionate share of COA expenditures. See Table 4 for Fiscal Year 2021 revenues, contract end dates, and which customers are currently paying their proportionate share of COA expenditures. Revenues from Wholesale Customers for wastewater service for Fiscal Years 2020 and 2021 were $39,325,697 and $39,101,894, respectively.

The Water Department has implemented certain changes to the existing long-term wholesale contracts presented in Table 4. Such changes include extending the terms of certain contracts, excluding the contracts with Lower Moreland Township and Abington Township, which had already been extended, increasing management fees from 10% to 12%, and requiring wholesale wastewater customers to assume their respective proportionate share of COA Expenditures. The contract end dates shown in Table 4 represent the extended contract dates. As demonstrated in Table 4, the Water Department currently charges six wholesale wastewater customers for their respective share of COA Expenditures.

Delaware County Regional Water Quality Control Authority ("DELCORA")

Aqua PA Wastewater, Inc., an Essential Utilities Company ("Aqua PA Wastewater"), signed an asset purchase agreement to acquire DELCORA's wastewater assets. The pending transaction is subject to approval by the Pennsylvania Public Utility Commission ("PUC"). If approved by PUC, Aqua PA Wastewater and DELCORA have informed the Water Department that they may build infrastructure to divert wastewater flows from the Water Department. Wholesale wastewater revenues from DELCORA for Fiscal Year 2021 were 1.24%; see Table 4 – Wholesale Water and Wastewater Customer Revenues Fiscal Year Ending June 30, 2021 herein. During PUC's review, the Delaware County Council (as the as the sole municipal incorporator of the DELCORA) sought to dissolve DELCORA and take over its assets. On May 14, 2020, the Delaware County Council filed a suit with the trial court to block the sale by DELCORA to Aqua PA Wastewater. On March 31, 2020, PUC remanded the application of Aqua PA Wastewater to the Office of Administrative Law Judge for further proceedings. On April 16, 2021, PUC stayed Aqua PA's application pending a final unappealable decision by the Commonwealth Court respecting the lawsuit filed by the Delaware County Council against DELCORA. On March 3, 2022, the Commonwealth Court held that Delaware County can dissolve DELCORA and remanded the case to the trial court. The Commonwealth Court's order was not appealed, and the Commonwealth Court remitted the record to the trial court on May 3, 2022. No further proceedings before the trial court have been held as of July 26, 2022. On May 27, 2022, the City of Chester formally filed a petition to intervene in the PUC proceeding, stating that the City's automatic and self-effectuating reversionary interest in the City's sewer system, and related property, prevents both the transfer of those assets to Aqua PA Wastewater, and the approval of any transfer or acquisition of those assets until the City consents. While the litigation for intervention continues unresolved, if granted, it could potentially delay the PUC's resolution.

On July 14, 2022, the PUC voted 2-1 to lift the Administrative Law Judge's stay of the PUC proceeding, and the Administrative Law Judge was directed to commence the remand proceeding, which would enable the PUC to render a decision despite ongoing litigation. Further proceedings before the PUC have not been held as of July 26, 2022.

Bucks County Water and Sewer Authority

Aqua PA Wastewater has made an offer to purchase the wastewater assets of the Bucks County Water and Sewer Authority ("BCWSA"). On July 13, 2022, BCSWA voted in favor of granting Aqua PA Wastewater an exclusive right to negotiate for one year with BCWSA regarding the sale of its wastewater assets. The terms of the potential sale have not been reported as of July 19, 2022, other than Aqua PA Wastewater's offer to purchase the assets for $1.1 billion. Negotiations between the parties are in nascent stages and currently there have been no formal discussions with the PUC regarding approval of the potential transaction.

Environmental Compliance

General

The Wastewater System is subject to various environmental laws and regulations, and from time to time, receives notices of violations of such environmental laws and regulations. As a result of such violations, the Water Department has incurred minor fines from time to time.

Combined Sewer Overflow Program

In certain sections of the City, both wastewater and stormwater are collected and conveyed in a single pipe to the sewage treatment plant. During certain precipitation events, this additional stormwater exceeds the capacity of the treatment plant, resulting in what is known as a combined system overflow ("CSO") that discharges directly into local waterways. The administratively extended NPDES permits require the Water Department to implement a program to achieve the elimination of the mass of the pollutants that otherwise would be removed by the capture of 85% by volume of the combined sewage collected in the combined sewer system.

The City entered into a Consent Order and Agreement (the "COA") with the PADEP in June 2011 and an Administrative Order for Compliance on Consent with the EPA in September 2012. The COA requires the Water Department to implement the Long-Term Control Plan Update, also known as the Green City, Clean Waters ("GCCW") program and to provide annual reporting on progress. Under the GCCW program, the City has been investing in green and traditional infrastructure, including wastewater treatment facility enhancements, interceptor pipe lining and collection system improvements, to manage stormwater, mitigate CSOs and enhance the quality of local waterways, all aimed towards meeting water quality standards in the City's CSO receiving streams and rivers.

As required under the COA, by calendar year 2036 (year 25 of the COA), the City's GCCW program seeks to eliminate and remove the mass of pollutants that otherwise would be removed by the capture of 85% of CSOs by volume from the combined sewer system. The COA further requires that the City must continue to operate its combined sewer system to maintain this required standard for at least an additional twenty years. Post-construction monitoring will be required at the conclusion of the 25-year program in order to understand the program's effectiveness in meeting water quality standards. The COA requires interim performance standards at the end of the fifth, tenth, fifteenth and twentieth years in four categories: (1) Total Greened Acres; (2) Overflow Reduction Volume; (3) Miles of Interceptor Lined; and (4) Wastewater Treatment Plant Upgrades in design and construction. The COA also includes significant penalties for non-compliance with the milestones.

Penalties start at $25,000 per month for each violation (for the first 6 months) and increase up to $100,000 monthly for uncured violations of 13 months or more. The COA also requires the submittal of an Evaluation and Adaptation Plan ("EAP") at least once every five years. The EAP includes an assessment of progress, description of program elements for the upcoming 5-year period, and adaptive strategies for any performance standards that have not been met. The Year 5 (2016) EAP was submitted on October 30, 2016, and the City received an extension for the delivery of the Year 10 EAP until May 30, 2022 as discussed below.

On November 9, 2016, the City received a revised request from EPA directing the City to analyze the controls necessary to achieve 85% capture in each of the City's three WPCP drainage districts, which is inconsistent with the metrics contained in its approved COA and existing NPDES permits that require 85% capture based on a city-wide average. The EPA subsequently stayed the obligation to respond to the information request and met with the City in June 2018 to discuss potential options to achieve 85% mass capture in each WPCP drainage district. The information request remains stayed and there has been minimal dialogue on the topic until a recent inquiry on the matter by the PADEP. It is anticipated that if further discussions are necessary, they will be held in connection with the negotiation of the NPDES permits given that the City's obligations under the COA should align with its wastewater permits. See " – Wastewater and Stormwater Regulations and Permits and Awards" above.

The Water Department anticipates that over the next 15 years, compliance with the COA will significantly increase capital and operating expenditures related to its GCCW program. Moreover, any resulting changes to the COA as a result of the EPA's information request could further increase the costs of compliance. Looking ahead to the Ten-Year Performance Standard (hereinafter defined), the City continues to review program cost and delivery in an effort to optimize the program while satisfying the necessary regulatory requirements. As of the most recent projections, the total cost of the 25-year program is approximately $4.5 billion, of which approximately $3.5 billion are capital related costs and $1 billion are operation and maintenance costs.

The City allocated $93 million for COA Expenditures in Fiscal Year 2023. The COA budget for Fiscal Year 2023 is exclusive of any carryforward of unused budget authorization in prior Fiscal Years. See Table 5 – Fiscal Years 2023-2028 6-year Water Capital Improvement Program and COA Budget. From July 1, 2011 through and including June 30, 2021, the Water Department spent approximately $299 million of its capital budget on COA Expenditures. During the same period, the Water Department spent $371 million from its operating budget for COA Expenditures, which excludes stormwater credits. For a discussion of stormwater credits, see Table 12 – Stormwater Incentives and Assistance Program.

The City completed the requirements of the fifth-year performance standard of 744 greened acres and a reduction of annual CSO volume by 660 million gallons in 2016. Under the COA, the City must have completed a total of 2,148 greened acres and a reduction of annual CSO volume by 2,044 million gallons by the extended date of December 31, 2021 (the "Ten-Year Performance Standard"). The City has the option to petition the PADEP for an extension of time to satisfy the requirements of the COA if the wastewater component of a customer's bill were to exceed 2.27% of median household income or in the case of a force majeure event. The City anticipated meeting all required compliance targets for the Ten-Year Performance Standard prior to outbreak of COVID-19. Restrictions related to the COVID-19 pandemic disrupted, and continue to disrupt, both ongoing and planned construction projects; thus, the City expects delays meeting the requirements of the Ten-Year Performance Standard. Citing force majeure, the City requested and on April 6, 2021, the PADEP formally granted, an extension for the City to complete the Ten-Year Performance Standard requirements and other deliverables. The PADEP granted the City an extension until December 31, 2021 to achieve the Ten-Year water quality based effluent limit performance standards, and until May 30, 2022 to deliver the Year 10 EAP. The City has achieved the Ten-Year Performance Standards and formally reported the achievement with the recent submission of the Year 10 EAP to the PADEP on May 26, 2022, as permitted by the extension.

The Water Department's Stormwater Management Incentives Program ("SMIP") and Green Acre Retrofit Program ("GARP") typically provide 100% funding for the private sector to build, own, operate and maintain green stormwater infrastructure on private property. Once the project is complete, the recipient receives up to an 80% reduction on stormwater charges. Since the program's inception, the Water Department has achieved 391 acres as of June 30, 2018, 577 acres as of June 30, 2019, 613 acres as of June 30, 2020 and 806* acres as of December 31, 2021. These acres are part of the Water Department's totaled greened acres discussed above. See Table 12 – Stormwater Incentives and Assistance Program.

Delays in completing greened acres and reducing CSOs can occur at any time and no assurance can be given that any performance standard under the COA will be met timely.

Clean Streams Law

The Wastewater and Stormwater Systems are subject to various environmental laws and regulations, and from time to time, receives notices of violations of such environmental laws and regulations. As a result of such violations, the Water Department has incurred minor fines from time to time.

Clean Air Act

The federal Clean Air Act sets forth requirements for the regulation of certain air emissions. The PADEP, pursuant to the Clean Air Act's mandates, issued regulations for the control of Volatile Organic Compounds ("VOC") and Nitrogen Oxide ("NOx") emissions from major stationary sources. The Northeast and Southwest WPCPS and the Biosolids Recycling Center were found to be major sources of VOC and NOx emissions, while the Southeast WPCP is a minor source. From time to time, the Water Department has incurred minor fines for violation of the Clean Air Act.

Polychlorinated Biphenyls (PCBs)

Pursuant to Section 303(d) of the Clean Water Act, on December 15, 2003, zones 2, 3, 4, and 5 of the Delaware River estuary were declared impaired because of the levels found in the water of an organic chemical known as polychlorinated biphenyls ("PCBs"). As a result, the DRBC developed, and EPA approved, Total Maximum Daily Load ("TMDL") analyses in 2003 (DRBC zones 2-5) and 2006 (DRBC zone 6) defining the levels of PCBs that can be discharged from all sources while meeting water quality standards. The TMDLs set forth a plan to reduce loadings of PCBs into the river. The current understanding is that the river exceeds its allowable loadings by 1,000 times its allowance. Loadings come from virtually every source, e.g., sediments, air, runoff from land, contaminated sites and the PCBs that are contained in the influent of the Water Department's three WPCPs. The Water Department's NPDES permits require implementation of a pollutant minimization plan, which involves tracking down sources of PCBs and referring them to the appropriate agency for remediation. This involves additional staff to track the sources of PCBs and to devise programs to reduce the loadings. The level and extent of clean up that will be required by each source category in the future is currently being evaluated by the DRBC, the EPA and the states comprising the DRBC.

Biosolids Treatment and Utilization

The City is required by federal and state law administered by the EPA and the PADEP to treat and dispose of biosolids captured during wastewater treatment at the City's WPCPs. Under the Biosolids Service Contract, Philadelphia Biosolids treats biosolids from the City's three WPCPs and produces and disposes of Class A pellets to be used as fertilizer and potentially fuel. For more information on the Biosolids Service Contract, see "OUTSTANDING INDEBTEDNESS AND OTHER LONG-TERM AGREEMENTS – Other Obligations – Contract for Biosolids Treatment with Philadelphia Biosolids Services, LLC" herein.

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* This reflects an estimate of greened acres and should not be considered compliance certified. Certification will not occur until submittal of the Water Department's annual report to the PADEP. Greened acres are subject to change as projects move through construction closeout and compliance review and accounting processes.

PFAS

Due to the omnipresence of PFAS in the environment, wastewater systems can be pathways for PFAS. There is a growing concern that PFAS in wastewater system could potentially be discharged in the effluent or the groundwater thereby threatening water quality. Currently, state and federal regulatory agencies have not promulgated regulations establishing maximum effluent limits for PFAS in wastewater systems only health advisories. However, in 2021 the PADEP announced that it had included discharge limits for two PFAS compounds in the National Pollutant Discharge Elimination System (NPDES) permits issued to a federal facility located in Horsham, Pennsylvania. No assurance can be provided that future regulatory or permit actions will not be taken with respect to the permits applicable to the City's wastewater system. Compliance with any such future regulations or permit requirements could result in an increase in capital expenditures and maintenance costs.

CAPITAL IMPROVEMENT PROGRAM

The Charter requires City Council to adopt annually, on or prior to May 31, a one-year capital budget for the ensuing Fiscal Year and a six-year budget showing the capital expenditures planned for that year and each of the five ensuing Fiscal Years known as the "City Capital Improvement Program." The Water Capital Improvement Program is included in the City Capital Improvement Program. The City Capital Improvement Program is prepared annually by the City Planning Commission to present the capital expenditures planned for each of the five ensuing Fiscal Years, including the estimated total cost of each project and the estimated sources of funding (local, state, federal, and private) for each project. The City Capital Improvement Program is reviewed by the Mayor and transmitted to City Council for adoption with his recommendation. The capital budget ordinance, authorizing in detail the capital expenditures to be made or incurred in the ensuing Fiscal Year from City Council appropriated funds, is adopted by City Council concurrently with the City Capital Improvement Program. The one-year capital budget must be in full conformity with the City Capital Improvement Program applicable to the Fiscal Year that it covers. City Council approved the City Capital Improvement Program for Fiscal Years 2023 through 2028 on June 23, 2022. The Water Capital Improvement Program for Fiscal Year 2023 to Fiscal Year 2028 is approximately $4.0 billion, excluding carryforward of $160.5 million of unused budget authorization for prior Fiscal Years. In Fiscal Years 2019, 2020, and 2021 the Water Department's actual capital expenditures totaled $315 million, $275 million, and $267 million respectively. As of June 30, 2022, capital expenditures for Fiscal Year 2022 totaled $237 million.

The emphasis of the Water Capital Improvement Program is on: (i) renewal and replacement of the water conveyance and sewage collection systems, (ii) improvements to water and wastewater treatment plants and (iii) CSO mitigation projects consistent with the Water Department's COA.

Table 5 summarizes the 6-year Water Capital Improvement Program and COA Budget for Fiscal Years 2023 through 2028. A list of the Water Department's top ten active and bid capital projects in terms of estimated cost and expected financing sources also are presented in Tables 6 and 7, respectively. The Water Department may change the elements of the Water Capital Improvement Program at any time, including the proposed financing vehicles and/or schedules associated therewith.

Due to the effects of the COVID-19 pandemic, certain non-critical capital projects have been and will continue to be postponed or will have their budgets reduced. See "INTRODUCTORY STATEMENT – COVID-19 Response" herein. See also "CAPITAL IMPROVEMENT PROGRAM – Table 6 – Top Ten Active Capital Projects by Estimated Cost" and "– Water Main Replacement" and " – Sewer Replacement and Renewal Program" herein.

Table 5
Fiscal Years 2023-2028
6-year Water Capital Improvement Program and COA Budget*

Capital Budget Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total FY 2023-2028
Collector System/Flood Relief	$87,860,000	$93,860,000	$98,860,000	$104,860,000	$109,860,000	$115,860,000	$611,160,000
Collector System (*CSO COA)*	83,000,000	83,000,000	83,000,000	156,000,000	156,000,000	156,000,000	717,000,000
Conveyance System	128,060,000	125,060,000	320,060,000	127,060,000	135,060,000	125,060,000	960,360,000
Engineering Administration & Material Support	26,321,000	26,321,000	26,321,000	26,321,000	26,321,000	26,321,000	157,926,000
Water Facilities	195,000,000	145,000,000	95,000,000	275,000,000	135,000,000	70,000,000	915,000,000
Wastewater Facilities	50,000,000	135,000,000	50,000,000	170,000,000	50,000,000	50,000,000	505,000,000
Wastewater Treatment Facilities (*CSO COA)*	10,000,000	46,000,000	23,000,000	10,000,000	10,000,000	10,000,000	109,000,000
Total	**$580,241,000**	**$654,241,000**	**$696,241,000**	**$869,241,000**	**$622,241,000**	**$553,241,000**	**$3,975,446,000**

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total FY 2023-2028
Subtotal Non-CSO COA	$487,241,000	$525,241,000	$590,241,000	$703,241,000	$456,241,000	$387,241,000	$3,149,446,000
Subtotal CSO COA**	93,000,000	129,000,000	106,000,000	166,000,000	166,000,000	166,000,000	826,000,000
Total	**$580,241,000**	**$654,241,000**	**$696,241,000**	**$869,241,000**	**$622,241,000**	**$553,241,000**	**$3,975,446,000**

* Excludes carryforward of unused budget authorization for prior Fiscal Years in the amount of $160.5 million.
** COA Expenditures represent 20.8% of the Water Capital Improvement Program budget for Fiscal Years 2023 through 2028.

The following table presents the Water Department's Top Ten active and bid capital projects in terms of estimated cost. Such projects are included in the Water Capital Improvement Program and are constructed and paid over a number of Fiscal Years.

Table 6
Philadelphia Water Department
Top Ten Active Capital Projects by Estimated Cost
As of June 30, 2022

No.	Project Title	Status	Estimated Cost	Fiscal Year Commencement
1	Clear Water Basin at Baxter Water Treatment Plant	Construction Started	$125,600,000	2017
2	Pretreament Facility at Northeast Water Pollution Control Plant	Notice to Proceed	111,000,000	2022
3	Advanced Metering Infrastructure (AMI)	Ongoing	90,000,000	2019
4	Torresdale Pumping Station Betterment	Construction Started	85,900,000	2021
5	Water Main Replacements*	Ongoing Replacement	115,000,000	Annual Replacements
6	Sewer Main Replacements*	Ongoing Replacement	62,000,000	Annual Replacements
7	Dissolved Air Floatation System	Construction Started	23,100,000	2018
8	Final Sedimentation Tank Improvements at Southeast Water Pollution Control Plant	Construction Started	17,200,000	2017
9	Return Sludge Line Final Sedimentation Tank 2	Notice to Proceed	16,200,000	2020
10	Germantown Sewer Project– Northern Liberties Phase 5	Construction Started	13,800,000	2017
	TOTAL		**$659,800,000**	

*Reflects budget for Fiscal Year 2023.

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Capital Improvement Program Financing Sources

The Water Department expects to finance the Water Capital Improvement Program using proceeds of revenue bonds, pay-as-you-go financing, and possibly alternative sources of funding, including loans or grants. See "– Pennvest Loans", " – Commercial Paper Program" and " – WIFIA" herein. The Rate Board set a target of twenty percent pay-as-you-go financing to fund the Water Capital Improvement Program. The majority of the remaining portion of the costs of the Water Capital Improvement Program is expected to be funded with the proceeds of debt as indicated below. The City expects most of such debt to be in the form of new money revenue bonds issued in several transactions, as necessary.

The Water Department anticipates additional borrowings for Fiscal Years 2024 through 2027 as follows:

Table 7
Anticipated Future Borrowings for Water Capital Improvement Program

Fiscal Year	Estimated Principal Amount
2024	$430,000,000
2025	520,000,000
2026	610,000,000
2027	540,000,000

City Council has preauthorized by supplemental ordinance a portion of the debt that will finance a majority of the projects contained in the Water Capital Improvement Program. The Water Department may change the financing elements of the Water Capital Improvement Program, including the financing vehicles utilized and the timing thereof, at any time and from time to time.

The Water Department also considers alternative sources of financing from time to time, in addition to the anticipated borrowings described above.

Pennvest Loans

The Board of Directors of the Pennsylvania Infrastructure Investment Authority ("Pennvest") has approved several draw-down loans to the City totaling $375,002,270 for various capital projects. The interest rates on the loans range from 1% to 1.74% for terms of approximately 20 years.

Commercial Paper Program

The City has authorized its Water and Wastewater Revenue Commercial Paper Notes in an amount not to exceed $400,000,000 (the "Commercial Paper Notes"). The City will use the proceeds of the Commercial Paper Notes to: (i) finance capital expenditures for the System; (ii) make deposits to the Sinking Fund to provide for payments of accrued interest or to establish a debt service reserve or reserves; (iii) pay obligations to the banks that issued letters of credit supporting the Commercial Paper Notes, resulting from draws on such letters of credit; (iv) pay or defease outstanding Commercial Paper Notes; and (v) pay the costs of issuance of the Commercial Paper Notes. The letters of credit that support the Commercial Paper Notes expire on July 28, 2026 (for the Series A Notes in an amount not to exceed $125,000,000), July 29, 2024 (for the Series B Notes in an amount not to exceed $125,000,000) and July 28, 2027 (for the Series C Notes in an amount not to exceed $150,000,000). As of the date of this Official Statement, $4,000,000 aggregate principal amount of Commercial Paper Notes are Outstanding.

WIFIA

The City submitted a letter of interest in July 2021 for an award of funds from a federal credit program administered by the EPA for eligible water and wastewater infrastructure projects promulgated under the Water Infrastructure Finance and Innovation Act ("WIFIA"). The City was invited to submit an application and did so on May 27, 2022, requesting $290 million to finance certain projects that are part of the larger Water Revitalization Plan discussed below. See "MANAGEMENT INITIATIVES – Water Master Planning" herein. Assuming the award of the funds and that the requisite funding is received timely, the Water Department expects to commence a water main replacement project, which is one of the projects included in the WIFIA application, during Fiscal Year 2023.

Capital Planning Initiatives

The Water Department's Operations, Planning and Environmental Services, and Engineering and Construction Divisions develop capital programs to better anticipate future needs for infrastructure maintenance and upgrades and to manage long-term capital expenditures. Included in these efforts are a sewer assessment program, a geographic information-based system records viewer, a capital facilities assessment program, and a standardized planning process for all large capital projects.

The Water Department has enhanced its planning process for capital projects that have an initial estimated design and construction cost of $2 million or more. As part of such initiative, the Water Department will focus on and document the following three project planning steps: Project Need Identification, Project Alternatives Identification, and Project Alternatives Evaluation. A prioritization system is utilized to capture the primary driving factors associated with a wide range of project types. The desired timing of capital projects also is documented through this process. The improved planning process helps inform the Water Department's future critical strategic planning efforts, in addition to improving communication and coordination among units within the Water Department. Below is a discussion of a few of the Water Department's current capital planning initiatives. See also "MANAGEMENT INITIATIVES – Water Master Planning" for information on the Water Department's 25-year Master Planning process.

Linear Asset Management Program

The Linear Asset Management Program ("LAMP") evaluates the Water Department's water and sewer assets. LAMP leverages several information systems, existing programs and statistical tools to evaluate non-capital options for extending an asset's useful life and assess the risk of pipeline failure for the water distribution system and the sewer collector system, the costs of replacement, ancillary damages and operations and maintenance history. With this information, long-term plans for water pipeline and sewer asset renewal are developed on an ongoing basis. Under LAMP, the Water Department has commenced replacement of additional miles of failure-prone leadite joint piping, a cohort that has the highest statistical likelihood of failure. The Water Departments uses LAMP to inform its water main and sewer replacement and renewal programs.

Water Main Replacement

The Water Department's five-year average breaks per 100 miles is 24.1 per year. The Water Department assesses its water main break rate against the optimal level of 15 breaks per 100 miles/year as defined by the Distribution System Optimization Program under the American Waterworks Association (the "AWWA") Partnership for Safe Water. The Water Department closely monitors water main conditions to determine that adequate capital investment is made, to predict long-term water main replacement needs and refine the criteria for replacement selection. Over the last 25 years, the Water Department has replaced on average 18.4 miles of water mains per year. In Fiscal Years 2021 and 2022, the Water Department budgeted $93 million and $30.7 million for water main replacement in order to accelerate its water main replacement program with a new goal of replacing a total of 36 miles of water mains in Fiscal Year 2021, 38 miles in Fiscal Year 2022, and 40 miles in Fiscal Year 2023. The Fiscal Year 2022 budget was decreased to account for the inability to bid projects in Fiscal Year 2021 due to the COVID-19 pandemic.

The program has been impacted by the COVID-19 pandemic, resulting in a significant decrease in miles of water mains replaced in Fiscal Year 2021. For Fiscal Year 2022 through 2024, the Water Department intends to continue to target an increase of 2 miles of water main replacement per year until it reaches a total of 42 miles of water main replacement in Fiscal Year 2024. For Fiscal Years 2024 and thereafter the Water Department intends to continue to target the replacement of 42 miles of water mains annually.

Sewer Replacement and Renewal Program

Over the last 25 years, the Water Department has reconstructed and/or rehabilitated, on average, approximately 8 miles of sewer annually. The Water Capital Improvement Program currently includes reconstructing or relining of ten miles of sewers per year based upon results of the Sewer Infrastructure Assessment Program and other reports, including data from LAMP. Some sewers are scheduled for reconstruction as a result of programmed water main replacement. As infrastructure is studied further, it is likely that annual sewer renewal will increase. The budget for Fiscal Year 2021 and 2022, respectively, was $57 million and $44.7 million. However, the program has been impacted by the COVID-19 pandemic, resulting in a significant decrease in miles reconstructed or replaced in Fiscal Year 2021. The Fiscal Year 2022 budget for sewer reconstruction was decreased to account for the Water Department's inability to bid sewer projects in Fiscal Year 2021 due to the COVID-19 pandemic. For Fiscal Year 2023 through Fiscal Year 2025, the Water Department's budget for sewer reconstruction is $62 million in Fiscal Year 2023, $68 million in Fiscal Year 2024, and $73 million in Fiscal Year 2025, which is expected to yield sewer reconstruction or rehabilitation of 11 miles in Fiscal Year 2023, 12 miles in Fiscal Year 2024, and 13 miles in Fiscal Year 2025. The sewer reconstruction goal will increase by one mile per year until it reaches 20 miles per year. The annual budget for sewer reconstruction is expected to increase annually to accommodate the mileage increase.

Sewer Infrastructure Assessment Program

The Water Department has incorporated a sewer assessment program to evaluate the condition of its sewer system. Data collected from the program is used to determine necessary repairs and capital and operating costs of such repairs. The program has helped to identify sewers in immediate need of repair, and it is anticipated that over time it will result in a reduction of costly and disruptive emergency sewer repairs. The sewer assessment program also is used to schedule repairs for sewers that have reached the end of their useful life. Such sewers will be reconstructed as part of the Water Capital Improvement Program.

HISTORICAL AND PROJECTED FINANCIAL INFORMATION

Historical Comparative Statement of Net Position

The Water Department's financial statements are prepared in accordance with accounting principles promulgated by the Governmental Accounting Standards Board ("GASB"). The statement of net position presents the financial position of the Water Department. It presents information on the Water Department's assets, deferred outflows of resources, and liabilities with the difference between the three reported as net position. A three-year condensed summary of the Water Department's net position as of June 30 for Fiscal Years 2019 through 2021, as presented in the audited financial statements for such years, is presented on the following page.

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Table 8
Condensed Statement of Net Position as of June 30, 2021
(Thousands of Dollars)

	FY 2021	FY 2020	FY 2019
Assets:			
Current Assets	$340,427	$ 309,155	$ 284,260
Capital Assets	2,917,034	2,783,277	2,655,300
Restricted Assets	778,914	810,973	749,096
Total Assets	4,036,375	3,903,405	3,688,656
Deferred Outflows of Resources	80,267	78,669	72,125
Total Assets and Deferred Outflows	4,116,642	3,982,074	3,760,781
Liabilities:			
Current Liabilities	216,629	235,685	240,323
Bonds Payable	2,411,862	2,272,456	2,070,390
Other Non-Current Liabilities	540,140	631,083	609,514
Total Liabilities	3,168,631	3,139,224	2,920,227
Deferred Inflows of Resources	72,875	16,087	18,470
Total Liabilities and Deferred Inflows	3,241,506	3,155,311	2,938,697
Net Position:			
Net Investment in Capital Assets	643,531	655,874	649,536
Restricted	527,697	541,346	545,506
Unrestricted	(296,090)	(370,457)	(372,958)
Total Net Position, as Restated	$875,138	$ 826,763	$ 822,084

The following is a discussion of the more significant changes in assets and deferred outflows of resources, liabilities and deferred inflows of resources, and net position in Fiscal Year 2021:

- Total current assets increased by $31.3 million to $340.4 million, or 10.1%, due mainly to increases in Cash and Cash Equivalents in the Water Operating Fund of $38.1 million. The increase was partially offset by a decrease in Accounts Receivable of $10.4 million. Accounts Receivable decreased in Fiscal Year 2021 mainly due an increase in fiscal year charge offs of $6.2M, or 58% greater than Fiscal Year 2020 charge offs.

- Restricted assets decreased by $32.1 million to $778.9 million, or 4.0% in Fiscal Year 2021, due to decreases in the Water Capital Fund of $14.2 million, which were impacted by reduced transfers to the Water Capital Fund from current revenues and lower proceeds from bond sales. The Rate Stabilization Fund also decreased by $24.6 million due to the year-end transfer to the Operating Fund. These decreases were partially offset by an increase to Sinking Funds and Reserves of $12.8 million due to the year-end balance in the Capitalized Interest Account.

- Total current liabilities decreased by $19.1 million to $216.6 million, or 8.1%. This was mainly due to a decrease in Accrued Expenses of $15.1 million. Accrued Expenses decreased due to the decrease in Accrued Interest Payable on the Department's Outstanding Bonds. The decrease is due to bonds that were refunded in Fiscal Year 2021.

- Other noncurrent liabilities decreased by $90.9 million to $540.1 million, or 14.4%, primarily due to a decrease in net pension liability which was partially offset by an increase in net OPEB liability.

- Net Pension Liability decreased by $107.9 million, or 24.5%, in Fiscal Year 2021 to $333.1 million. This was due to investment gains to the Pension Fund in 2021 and the fully recognized investment loss of 2016 being fully recognized in Fiscal Year 2020.

- Deferred inflows of resources increased by $56.8 million in Fiscal Year 2021 to $72.9 million primarily due to deferred inflows of resources related to net pension liability (see above).

- The Water Fund's net position increased by $48.4 million to $875.1 million, or 5.9%, as a result of Fiscal Year 2021 operations and a prior period adjustment.

- Net investment in capital assets decreased by $12.3 million, or 1.9%, to $643.5 million mainly due to a decrease in unspent bond proceeds offset by increases in bonds payable and deferred outflows and inflows related to unamortized gains and losses of refunded debt.

- Unrestricted net position deficit decreased by $74.4 million, or 20.1%, to a deficit of $296.1 million. The unrestricted component of net position represents the net amount of total assets, deferred outflows of resources, total liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or restricted components of net position.

Historical Operating Results (Legally Enacted Basis)

For purposes of rate setting, calculating compliance with the Rate Covenant 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 other governments 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, which are recorded when paid. A reserve is maintained for encumbrances at the close of the Fiscal Year intended to pay expenses incurred in such Fiscal Year.

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Table 9
Philadelphia Water Department Historical Operating Results
(Thousands of Dollars)

		FY 2021	FY 2020	FY 2019
1.	**Operating Revenues:**			
2.	Sales to General Customers	$632,207	$631,378	$639,028
3.	Wholesale Wastewater Revenues	39,102	39,326	39,515
4.	Services to General and Aviation Fund	29,990	35,156	35,245
5.	Private Fire Connections	3,937	3,690	3,598
6.	Industrial Sewer Surcharge	5,024	4,957	4,699
7.	Other Operating Revenue	8,673	6,596	8,130
8.	Operating Grants	669	860	698
9.	**Total Operating Revenues**	**$719,602**	**$721,963**	**$730,913**
10.	**Non-Operating Revenues:**			
11.	Interest Earnings on Investments [(1)]	$(82)	$3,257	$3,725
12.	Other Non-Operating Revenues	10,931	21,458	6,908
13.	**Total Non-Operating Revenues**	**$10,849**	**$24,715**	**$10,633**
14.	**Total Revenues** [(2)]	**$730,451**	**$746,678**	**$741,546**
15.	**Operating Expenses** [(3)]	**$545,089**	**$543,677**	**$522,415**
16.	Less: Liquidated Encumbrances (commitments cancelled, which reduce Operating Expenses) [(4)]	23,993	26,861	30,421
17.	**Net Operating Expenses**	**$521,096**	**$516,816**	**$491,994**
18.	**Adjustment: Debt Service and Net Operating Expenses due to timing differences**	**--**	**--**	**--**
19.	**Excess of Operating Revenues over Net Operating Expenses (Ln 9 - Ln 17)**	**$198,506**	**$205,147**	**$238,919**
20.	**Excess of Total Revenues over Net Operating Expenses (Ln 14 - Ln 17)**	**$209,355**	**$229,862**	**$249,552**
21.	**Interest Expenses:**			
22.	Revenue Bonds	$98,341	$100,822	$88,314
23.	**Total Interest Expenses**	**$98,341**	**$100,822**	**$88,314**
24.	**Excess of Total Revenues over Net Operating Expenses and Interest Expense (Ln 20 – Ln 23)**	**$111,014**	**$129,040**	**$161,238**
25.	Add: Debt Service Payments to Sinking Fund, Revenue Bond Payments, LOC expenses and Net Operating Expenses due to timing differences	(134)	(198)	(39)
26.	Deduct: Principal Paid on Bonded Indebtedness During Fiscal Year	87,837	105,372	102,555
27.	Deduct: Transfer to Escrow Account to Redeem Bonds	--	--	--
28.	**Net Unapplied Revenues (Ln 24 + Ln 25 - Ln 26 - Ln 27)**	**$23,043**	**$23,470**	**$58,644**
29.	Deduct: Funds Transferred to Residual Fund (Further Transfer to Capital Acct)	$22,210	$30,000	$38,086
30.	Deduct: Funds Transferred to Capital Account (Required Transfer of 1% NPPE)	27,833	26,553	24,879
31.	Transfer (TO)/FROM the Rate Stabilization Fund	$27,000	$33,083	$4,321
	Coverage Ratios:			
32.	Senior Debt Service Coverage: Net Revenues [(5)]/Senior Debt Service (Ln 14 - Ln 17 + Ln 31)/ (Ln 23 + Ln 26)	1.27	1.28	1.33
33.	90% Test Coverage: Net Revenues [(5)] less Rate Stabilization Fund transfers in/ Senior Debt Service (Ln 14 - Ln 17)/ (Ln 23 + Ln 26)	1.12	1.11	1.31
34.	Total Payments Coverage: Net Revenues [(5)]/Total Payments (Ln 14 - Ln 17 + Ln 31)/ (Ln 23 + Ln 26+ Ln 30)	1.10	1.13	1.18

[(1)] Only includes interest earnings credited to the Revenue Fund pursuant to the General Ordinance.
[(2)] Calculated to include Project Revenues, as defined in the General Ordinance, plus interest earnings from line 11.
[(3)] Operating Expenses excludes, pursuant to the General Ordinance, depreciation, amortization, interest and sinking fund charges.
[(4)] Commitments cancelled represent the liquidation of encumbrances and offset operating expenses. An encumbrance is an expense that is anticipated to be charged to the Water Fund.
[(5)] As defined in the General Ordinance.

As discussed above, the Water Department is required to comply with the Rate Covenant under the General Ordinance. For a discussion of the Rate Covenant, see "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Rate Covenant" herein. All Water Fund expenditures are included in the Rate Covenant calculation under the General Ordinance. See "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Historical Operating Results (Legally Enacted Basis)" above. Historically, the Water Department has used the Rate Stabilization Fund to manage compliance with the Rate Covenant each year. See Note 1 to the financial statement of the Water Fund contained in APPENDIX I. See also Table 11 – Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates contained herein.

In Fiscal Year 2019, the Water Department complied with the Rate Covenant, with a Senior Debt Service coverage ratio of 1.33, a 90% Test coverage ratio of 1.31, and a Total Payments coverage ratio of 1.18, after taking into account a withdrawal from the Rate Stabilization Fund of $4,321,000. In Fiscal Year 2020, the Water Department complied with the Rate Covenant, with a Senior Debt Service coverage ratio of 1.28, a 90% Test coverage ratio of 1.11, and a Total Payments coverage ratio of 1.13, after accounting for a withdrawal from the Rate Stabilization Fund of $33,083,000. In Fiscal Year 2021, the Water Department complied with the Rate Covenant, with a Senior Debt Service coverage ratio of 1.27, a 90% Test coverage ratio of 1.12, and a Total Payments coverage ratio of 1.10, after accounting for a withdrawal from the Rate Stabilization Fund of $27,000,000. In light of the COVID-19 pandemic, the Water Department intends to continue to target Senior Debt Service coverage ratios of 1.20 times in Fiscal Year 2023. See also Table 11 – Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates and "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – The Water Department's Budget" herein for a discussion of the anticipated uses of the Rate Stabilization Fund.

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Table 10
Philadelphia Water Department
Rate Covenant Compliance
(Thousands of Dollars)

	FY2021	FY2020	FY2019
Senior Debt Service coverage ratio:			
Net Revenues	$236,355	$262,945	$253,873
/Senior Debt Service	186,178	206,195	190,869
= Coverage 1[(1)]	1.27x	1.28x	1.33x
90% Test coverage ratio:			
Net Revenues less Transfer From Rate Stabilization Fund	$209,355	$229,862	$249,552
/Revenue Bonds Debt Service	186,178	206,195	190,869
= Coverage 2[(2)]	1.12x	1.11x	1.31x
Total Payments coverage ratio:			
Net Revenues	$236,355	$262,945	$253,873
/Total Payments	214,011	232,748	215,748
= Coverage 3[(3)]	1.10x	1.13x	1.18x

The rate covenant contained in the General Ordinance requires the City to establish rates and charges for the use of the Water and Wastewater Systems to yield Net Revenues, as defined therein, in each fiscal year sufficient to meet the three coverage tests:

(1) **Senior Debt Service Coverage:** Net Revenues must equal at least 120% of the Debt Service Requirements payable in such fiscal year (excluding debt service due on any Subordinated Bonds).

(2) **90% Test Coverage:** Net Revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such fiscal year) must equal at least equal to 90% of the Debt Service Requirements (excluding debt service on any Subordinated Bonds) payable in such fiscal year.

(3) **Total Payments Coverage:** Net Revenues must equal at least 100% of: (i) the Debt Service Requirements (including Debt Service Requirements in respect of Subordinated Bonds) payable in such fiscal year; (ii) amounts required to be deposited into the Debt Reserve Account during such fiscal year; (iii) debt service on all General Obligations Bonds issued for the Water and Wastewater Systems payable in such fiscal year; (iv) debt service 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 rates, rents, fees, and charges at least annually.

The Water Department's Budget

At least 90 days before the end of the Fiscal Year, the operating budget for the next Fiscal Year is prepared by the Mayor and submitted to City Council for adoption. The budget, as adopted, must be balanced and provide for discharging any estimated deficit from the current Fiscal Year and make appropriations for all items to be funded with City revenues. At least 30 days before the end of the Fiscal Year, City Council must adopt by ordinance an operating budget.

The City submitted the Fiscal Year 2023 operating budget to City Council on or about March 31, 2022 and it was approved on June 23, 2022. The budget for the Water Fund for Fiscal Year 2023 is $883,550,000, inclusive of the budgeted transfer from the Rate Stabilization Fund in the amount of approximately $28 million. See also Table 11 – Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates. When analyzing the operating budget and transfer from the Rate Stabilization Fund, the financial tables take into account past spending practices and assume that the City's expenditures may be less than budgeted during the forecast period. However, as required by the Charter, the City calculates its operating budget and transfer from the Rate Stabilization Fund to attain a balanced budget. For more information on the City's budget procedure, see APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Discussion of Financial Operations – Budget Procedure." The Water Department expects to continue to utilize the Rate Stabilization Fund to manage through the effects of the COVID-19 pandemic on revenues, see also Table 11 – Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates contained herein.

Pension Obligations of the Water Department

As of the date of this Official Statement, the Water Fund has made its scheduled payments for the Municipal Pension Fund (defined herein) and its allocable share of the City's Pension Bonds (as defined in APPENDIX III) for Fiscal Year 2021. The City maintains a single employer defined-benefit pension program (the "Municipal Pension Fund"), which provides benefits to police officers, firefighters, non-uniformed employees, and non-represented appointed and elected officials, including employees of the Water Department. Contributions are made by the City to the Municipal Pension Fund from (i) the City's General Fund, (ii) funds that are received by the City from the Commonwealth for deposit into the Municipal Pension Fund, and (iii) various City inter-fund transfers, representing amounts contributed, or reimbursed, to the City's General Fund for pension payments for employees of the Water Fund, Aviation Fund, and certain other City funds or agencies. An additional source of expected funding is that portion of the 1% sales tax rate increase that is required under Pennsylvania law to be deposited to the Municipal Pension Fund. See APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Revenues of the City – Sales and Use Tax" and APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Pension System."

Payments from the Water Fund to the City's General Fund for the Municipal Pension Fund for Fiscal Year 2021 and Fiscal Year 2020 were approximately $81.2 million and $71.6 million, respectively. The estimated payment for Fiscal Year 2022 was $56.1 million, of which $55.9 million has been paid, and the budgeted payment for Fiscal Year 2023 is $56.4 million.

During Fiscal Year 2021, the Office of the Director of Finance performed an analysis of pension cost allocations among the City's various funds. As a result of such preliminary analysis, the Water Fund's contribution to the Municipal Pension Fund (i) was reduced by approximately $20 million in Fiscal Year 2022 and (ii) is expected to change in future years based on pension performance, discount rates, and other factors. The changes in the way pension costs are allocated to the various City funds are not expected to impact the total amount contributed to the Municipal Pension Fund because the contribution from the City's General Fund will increase in an amount equal to the reduction in contributions from the other City funds.

See APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Pension System – Annual Contributions – Table 29."

In Fiscal Years 2020 and 2021, contributions from the Water Fund to the City's General Fund for the Municipal Pension Fund were, respectively, approximately 10% and 10.94% of total payments to the Municipal Pension Fund, exclusive of the Water Fund's allocable share of Pension Bonds. Due to the revised pension cost allocations discussed above and restructuring of Pension Bond obligations, the Water Department expects payments due to the City's General Fund for the Municipal Pension Fund in Fiscal Years 2022 and 2023 will be, respectively, approximately 7.70% of total payments to the Municipal Pension Fund, exclusive of the Water Fund's allocable share of Pension Bonds.

Payments from the Water Fund to the City's General Fund for the Water Fund's allocable share of principal and interest payments on the City's Pension Bonds for Fiscal Years 2020 and 2021 were approximately $15.7 million and $4.5 million, respectively, based on allocable share of 7.85% of total payments. The Water

Department expects to make total payments of $8.2 million and $10.6 million in Fiscal Years 2022 and 2023, respectively, assuming an allocable share of 7.85%. See APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Pension System – Annual Contributions – Table 30."

Projected Revenues, Expenses and Debt Service

Table 11 – Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates presents a statement of projected revenues and revenue requirements for the operation of the Water and Wastewater Systems for Fiscal Years Ending June 30, 2022 through June 30, 2027, consistent with the requirements of the General Ordinance, and has been prepared by Black & Veatch Management Consulting, LLC (the "Consulting Engineer") based on the record in the 2022 Special Rate Proceeding. See "RATES – Current Base Rates, 2021 Rate Proceeding and 2022 Special Rate Proceeding" herein. Actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that actually occur and are unknown at this time and/or which are beyond the control of the Consulting Engineer. See also "CERTAIN INVESTMENT CONSIDERATIONS – System Revenues, Expenditures, Financing and Capital Assets" herein.

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Table 11
Projected Revenue and Revenue Requirements Base and TAP-R Surcharge Rates
Fiscal Years Ending June 30 (Thousands of Dollars)

Line No.	Description			2022	2023	2024	2025	2026	2027
	OPERATING REVENUE								
1	Water Service - Existing Rates			271,292	275,321	277,475	275,358	273,110	270,842
2	Wastewater Service - Existing Rates			443,120	447,896	450,450	448,074	445,636	443,201
3	Total Service Revenue - Existing Rates			714,412	723,217	727,926	723,433	718,746	714,043
	Additional Service Revenue Required								
	Year	Percent Increase	Months						
4	FY 2023	5.89%	10		34,799	42,926	42,649	42,359	42,070
5	FY 2024	10.41%	10			65,606	79,735	79,222	78,707
6	FY 2025	8.95%	10				61,915	75,225	74,736
7	FY 2026	8.52%	10					63,787	77,495
8	FY 2027	8.53%	10						68,862
9	Total Additional Service Revenue Required			-	34,799	108,533	184,299	260,594	341,870
10	Total Water & Wastewater Service Revenue			714,412	758,016	836,458	907,732	979,339	1,055,912
	Other Income(a)								
11	Other Operating Revenue			24,468	16,642	16,594	16,522	16,450	16,378
12	Debt Reserve Fund Interest Income			-	-	-	-	-	-
13	Operating Fund Interest Income			1,280	1,251	1,429	1,513	1,547	1,622
14	Rate Stabilization Interest Income			1,256	1,226	1,204	1,270	1,330	1,366
15	Total Revenues			741,415	777,135	855,686	927,037	998,667	1,075,278
	OPERATING EXPENSES								
16	Total Operating Expenses			(527,472)	(550,149)	(577,614)	(595,306)	(613,867)	(633,058)
	NET REVENUES								
17	Transfer From/(To) Rate Stabilization Fund			(1,366)	9,031	(3,417)	(9,126)	(1,924)	(3,993)
18	NET REVENUES AFTER OPERATIONS			212,578	236,017	274,655	322,605	382,876	438,227
	DEBT SERVICE								
	Senior Debt Service								
	Revenue Bonds								
19	Outstanding Bonds (b)			(166,384)	(172,558)	(159,772)	(159,907)	(160,906)	(160,940)
20	PENNVEST Parity Bonds			(10,725)	(11,175)	(12,609)	(16,995)	(24,263)	(29,448)
21	Projected Future Bonds			-	(12,833)	(38,794)	(71,174)	(109,267)	(146,638)
22	Commercial Paper			(25)	(95)	(97)	(82)	(83)	(71)
23	Total Senior Debt Service			(177,134)	(196,662)	(211,272)	(248,158)	(294,520)	(337,097)
24	TOTAL SENIOR DEBT SERVICE COVERAGE (L18/L23)			1.20 x	1.20 x	1.30 x	1.30 x	1.30 x	1.30 x
25	Subordinate Debt Service			-	-	-	-	-	-
26	Transfer to Escrow			-	-	-	-	-	-
27	Total Debt Service on Bonds			(177,134)	(196,662)	(211,272)	(248,158)	(294,520)	(337,097)
28	CAPITAL ACCOUNT DEPOSIT			(29,447)	(31,155)	(32,962)	(34,874)	(36,896)	(39,036)
29	TOTAL COVERAGE (L18/(L23+L25+L28))			1.02 x	1.03 x	1.12 x	1.13 x	1.15 x	1.16 x
	RESIDUAL FUND								
30	Beginning of Year Balance (c)			16,330	15,090	15,090	15,127	15,065	15,106
31	Interest Income			156	150	150	150	150	150
	Plus:								
32	End of Year Revenue Fund Balance			5,997	8,200	30,421	39,574	51,460	62,093
33	Deposit for Transfer to City General Fund (d)			1,882	1,902	2,113	2,448	2,880	3,351
	Less:								
34	Transfer to Construction Fund			(7,300)	(7,900)	(29,100)	(35,400)	(44,300)	(57,100)
35	Transfer to City General Fund			(1,882)	(1,902)	(2,113)	(2,448)	(2,880)	(3,351)
36	Transfer to Debt Service Reserve Fund			(94)	(450)	(1,435)	(4,386)	(7,268)	(5,185)
37	End of Year Balance			15,090	15,090	15,127	15,065	15,106	15,064
	RATE STABILIZATION FUND								
38	Beginning of Year Balance (c)			124,661	126,027	116,996	120,413	129,539	131,463
39	Deposit From/(To) Revenue Fund			1,366	(9,031)	3,417	9,126	1,924	3,993
40	End of Year Balance			126,027	116,996	120,413	129,539	131,463	135,457

a) Includes other operating and nonoperating income, including interest income on funds and accounts transferable to the Revenue Fund and reflects projected contra revenue credits for Affordability Program Discounts (TAP Costs). Includes Debt Service Reserve Fund Release in FY 2022.

b) Projected debt service amounts include debt service for the Series 2021C Bonds which issued in FY 2022.

c) FY 2022 beginning balance is based on FY 2021 results.

d) Transfer of interest earnings from the Bond Reserve Account to the Residual Fund as shown in Line 33 to satisfy the requirements for the transfer to the City General Fund shown on Line 35.

Note – the FY 2023 Revenue Adjustment reflects the City of Philadelphia Water, Sewer and Storm Water Rate Board's determinations in the 2022 Special Rate Proceeding and the 2022 Annual Rate Adjustment Proceeding, both dated June 15, 2022. The FY 2023 revenue projection includes $13.1 million from TAP-R rates.

RATES

Philadelphia Water, Sewer and Stormwater Rate Board

The Rate Board initially was formed following the Rate Ordinance's effective date of January 20, 2014. The Rate Board promulgated regulations governing the rate review process in December 2015 and completed its first rate proceeding in June 2016. The Rate Board is solely responsible for the setting of rates, pursuant to the Rate Ordinance.

The Rate Board consists of five members serving staggered terms. The members are appointed by the Mayor and confirmed by City Council; but the Mayor has sole discretion to remove members for cause, including conflicts of interest and neglect of duty. The Rate Ordinance requires that Board members be City residents with a minimum of five years professional experience in one or more of the following fields: (1) public or business administration, (2) finance, (3) utilities, (4) engineering or (5) water resources management. At least one member must have experience as a consumer advocate in utility rate cases, and one member must be a commercial and/or industrial ratepayer with knowledge and experience related to stormwater management and rates. Brief biographical descriptions of the members of the Rate Board can be found at https://www.phila.gov/departments/water-sewer-storm-water-rate-board/about/. Such website and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for any purpose, including for purposes of Rule 15c2-12 promulgated by the SEC pursuant to the Securities Exchange Act of 1934.

Members who resign or are removed may be replaced by a mayoral appointee confirmed by City Council, and such successor may serve for the remaining term of the replaced member. Members are not compensated for their services but are entitled to reasonable expenses consistent with their duties. The Rate Board receives an appropriation sufficient to allow it to carry out its responsibilities.

Certain Rate Setting Standards

Charter. The Charter mandates that the standards pursuant to which rates and charges are fixed shall be such as to yield to the City at least an amount equal to operating expenses and interest and sinking fund charges on any debt incurred or about to be incurred for water supply, sewage and sewage disposal purposes. In computing operating expenses, proportionate charges for all services performed for the Water Department by all officers, departments, boards or commissions of the City also are included.

Rate Ordinance. While any Water and Wastewater Bonds are outstanding, the Rate Board also will be required to set rates and charges in amounts sufficient for the City to comply with the provisions of the General Ordinance. The Rate Ordinance subjects the Rate Board to certain standards when making a rate determination in addition to those set forth in the General Ordinance. The Rate Ordinance also requires the Water Department to develop a comprehensive plan, pursuant to which the Water Department forecasts capital and operating costs and expenses and corresponding revenue requirements.

2018 Rate Determination. Under its rate determination dated as of July 12, 2018 (the "2018 Rate Determination"), the Rate Board adopted a target of $150 million in the Rate Stabilization Fund and the Residual Fund and concluded that a 1.30x Senior Debt Service Coverage Ratio is a reasonable target for the future. As part of the 2022 Special Rate Proceeding discussed below, the Rate Board reaffirmed that the thresholds set forth above are targets for the future and not applicable at this time. There is no requirement in the General Ordinance or the Act to maintain such amount and no assurance can be given that it will be maintained.

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Current Base Rates, 2021 Rate Proceeding and 2022 Special Rate Proceeding

The Water Department is currently operating under the rates established in the 2021 Rate Proceeding, as adjusted by the 2022 Special Rate Proceeding discussed below.

2021 Rate Proceeding. The Water Department initiated a general rate increase proceeding (the "2021 Rate Proceeding") for Fiscal Years 2022 and 2023 by filing an advance notice with the Rate Board and City Council on January 15, 2021 and then filing its formal notice on February 16, 2021 with the Rate Board and Department of Records. The Water Department and Public Advocate negotiated a partial settlement of the 2021 Rate Proceeding (the "Partial Settlement"), which is detailed in a Joint Settlement Petition. The hearing officer issued her report recommending the approval of the Partial Settlement on May 18, 2021. The Rate Board delivered its decision on June 16, 2021 approving the Partial Settlement set forth in the Joint Settlement Petition. The Partial Settlement is a compromise that lowered the original rate request, primarily due to the reduction in pension costs allocated to the Water Fund that took effect in Fiscal Year 2022, as discussed above in "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Pension Obligations of the Water Department." The Partial Settlement authorized $57 million in total additional revenues, approximately $10 million for Fiscal Year 2022 and approximately $47 million for Fiscal Year 2023. The base rate increases of approximately $10 million for Fiscal Year 2022 and $13 million for Fiscal Year 2023 were not subject to reconciliation or adjustment and were adopted without any changes. However, the Fiscal Year 2023 base rate increase of approximately $34 million (the "FY 2023 Base Rate Incremental Increase") was approved subject to reconciliation and adjustment as part of the terms of the Partial Settlement. A downward adjustment in an amount not to exceed the FY 2023 Base Rate Incremental Increase (the "Potential Adjustments") would be considered as part of a special rate proceeding if the Water Department (i) directly received federal stimulus funding to offset operating expenses and/or (ii) experienced certain improvements in financial performance for Fiscal Year 2021. These Potential Adjustments were addressed in the 2022 Special Rate Proceeding described below.

2022 Special Rate Proceeding. The Water Department initiated the 2022 Special Rate Proceeding to determine whether adoption of one or both of the Potential Adjustments was warranted. The Water Department filed its Advance Notice on January 21, 2022 with City Council and the Rate Board, and a formal notice was filed with the Department of Records and Rate Board on February 25, 2022. Discovery requests were submitted and responses provided during the ensuing period. Public input and technical hearings were held on March 23, 2022 and April 28, 2022, respectively. Briefs were filed on May 10, 2022. The Hearing Officer's Report was delivered on May 24, 2022 recommending a reduction of no more than $3 million in the FY 2023 Base Rate Incremental Increase. Exceptions to the Hearing Officer's Report were filed on June 2, 2022. The Rate Board rendered its Rate Determination on June 15, 2022 (the "Rate Determination"). In the Rate Determination, the Rate Board reduced the FY 2023 Base Rate Incremental Increase by $3 million for an incremental increase of approximately $31 million. The Rate Board also directed the Water Department to file revised rates and charges to become effective on September 1, 2022 consistent with its decision in the 2022 Special Rate Proceeding and the TAP reconciliation proceeding described below. The Water Department tentatively plans to file for new base rates for Fiscal Year 2024 and Fiscal Year 2025. On July 14, 2022, one of the pro se participants filed a notice of an appeal of the Rate Board's Special Rate Proceeding with the Court of Common Pleas of Philadelphia.

General Rates, Special Rates and the TAP Program

Water rates for general service customers of the Water Department consist of a service charge related to the size of the meter, plus a schedule of quantity charges for water use. Sewer rates for general service customers are similar. To more fairly reflect the burden on the System, stormwater charges are calculated based on a customer's property size and its relative imperviousness. A uniform stormwater charge based on the average size and imperviousness of residential properties is billed to residential customers. Charges to non-residential and condominium customers are based on each property's specific size and impervious area.

Special rates with partial discounts are established pursuant to the Water Department's Rates and Charges for the following customers: (1) public and private schools which provide instruction up to or below the twelfth grade; (2) institutions of "purely public charity;" (3) places used for religious worship; (4) residences of eligible senior citizens; (5) universities and colleges; and (6) public housing properties of the Philadelphia Housing Authority. In addition, the Rate Board approved discounts of 100% on stormwater rates for eligible community gardens in 2016 and an exemption from water, sewer and stormwater rates for unoccupied properties of the Philadelphia Land Bank in 2018. Some real estate also is exempt from stormwater charges, including, cemeteries, residential sideyards, City-owned or City-controlled vacant lots or improvements, portions of Fairmount Park, streets, medians, sidewalks, and rights-of-way. Water and sewer charges, including stormwater charges, terminate when any vacant or unoccupied premises are acquired by the City and when property is acquired by the Philadelphia Housing Development Corporation or the Philadelphia Redevelopment Authority under provisions of the Philadelphia Code pertaining to vacant properties.

In addition to the special rates referenced above, the Water Department offers additional assistance and incentive programs to customers, which constitute either an Operating Expense of the Water Department or contra-revenue in the form of credits or reductions to customers' bills.

The Tiered Assistance Program ("TAP") program was launched on July 1, 2017 and assists low-income households at or below 150% of the federal poverty level ("FPL") and those experiencing a special hardship, as discussed herein. Under the TAP program bills are tied to household income and do not fluctuate based on actual consumption. Under the TAP program, monthly bills for water, sewer, and stormwater usage and service charges are as follows:

Income	Fixed Charge %*	
50% of FPL or lower	at 2% of the household income	$12.00 minimum bill
Above 50% and at or below 100%	At 2.5% of the household income	
Above 100% and at or below 150% FPL	3% of the household income	
Above 150% FPL, with proof of hardship	4% of the household income	A special hardship can be increase in household size, loss of a job lasting more than 4 months, serious illness lasting more than 9 months, death of primary wage earner, domestic violence, other circumstances that threaten household's access to necessities of life

*Any actual charges above the fixed amount are forgiven.

Certain financial information regarding some of the programs discussed above is set forth in Table 12 – Stormwater Incentives and Assistance Program on the following page.

Table 12
Stormwater Incentives and Assistance Program
Fiscal Year Ending June 30, 2021

Program	Program Type	FY 2021	FY 2020	FY 2019
SMIP[1] and GARP [2][3]	Operating Expense	$ 8,419,131	$18,216,460	$ 30,433,976
Phase in Program (CAP)[4]	Bill Reduction[6]	1,405,875	1,722,703	2,003,238
Stormwater Credits[4]	Bill Reduction[6]	19,699,865	18,740,626	17,988,320
Community Gardens	Bill Reduction[6]	437	1,478	9,966
Tiered Assistance Program (TAP)[5]	Bill Reduction[6]	9,464,471	8,934,216	8,992,124
Charity Discount & School Discount	Bill Reduction[6]	6,464,986	7,295,493	10,393,514
Senior Citizen Discount	Bill Reduction[6]	4,251,353	4,317,094	4,300,459
Total		**$49,706,118**	**$59,228,070**	**$74,121,597**

(1) Stormwater Management Incentives Program.
(2) Grant and Greened Acres Retrofit Program.
(3) SMIP and GARP were partially funded with grants.
(4) Amounts are credits against certain customers' bills.
(5) TAP is a low-income assistance program that commenced in July of 2017. It reduces customers' bills and results in a reduction in revenue for the Water Department.
(6) Bill reduction program type reduces customers' bills and result in a reduction in revenue for the Water Department.

Appeal of 2018 Rate Determination

On July 12, 2018 the Rate Board approved overall rate increases of 1.33% and 1.20% to take effect in Fiscal Years 2019 and 2020, respectively, in the 2018 Rate Determination. As proposed by the Water Department, the initial rate change became effective on September 1, 2018 for Fiscal Year 2019, and the second became effective on September 1, 2019 for Fiscal Year 2020. The Water Department has estimated that the rate changes and targets for financial metrics approved by the Rate Board resulted in total revenue increases of approximately $7,884,000 in Fiscal Year 2019 and $14,467,000 in Fiscal Year 2020.

On August 9, 2018, the Public Advocate filed an appeal of the Rate Board's 2018 Rate Determination with the Court of Common Pleas of Philadelphia County. The appeal of the 2018 Rate Determination is captioned Public Advocate v. Philadelphia Water, Sewer and Storm Water Rate Board, and appears on the Court of Common Pleas Civil Docket as Case ID 180800527 (August Term 2018, No. 00527). On August 28, 2018, the Public Advocate filed a motion asking the Court to stay the new rates and charges, which was denied. The Court issued a scheduling order and consolidated the briefing on the motion and the merits. The Public Advocate and the City submitted their briefs and oral argument occurred on April 25, 2019. The Public Advocate asserted that the Rate Board violated the Public Advocate's due process rights because it: (1) failed to avoid even the appearance or lack of impartiality due to the participation of the City Treasurer as a member of the Rate Board; (2) failed to require a legally-sufficient report of hearing officer, to which the Public Advocate could supply meaningful exceptions; and (3) incorporated and relied upon calculations submitted by the Water Department after the close of the record. On June 24, 2019, the Court of Common Pleas issued an order denying the appeal. On July 15, 2019, the Public Advocate filed a Notice of Appeal of the order of the Court of Common Pleas in Commonwealth Court. Briefs were filed by the Public Advocate and the City between February and May of 2020. Oral argument before the Commonwealth Court occurred on November 9, 2020 and again on February 10, 2021, with the court sitting *en banc*. On September 24, 2021, the Commonwealth Court delivered its nonprecedential decision remanding two issues for further consideration to the Court of Common Pleas respecting the City Treasurer's non-recusal and the legal sufficiency of the report of the hearing officer. The Commonwealth Court also affirmed the decision of the Court of Common Pleas that the ratemaking procedures employed by the City generally provided the Public Advocate with sufficient rights of participation in the rate process and reversed the Court of Common Pleas' conclusion that the 2018 Rate Determination was not appealable. Finally, the Commonwealth Court affirmed the Court of Common Pleas' conclusion that the Public Advocate had ample opportunity to challenge new rate calculations. On April 5, 2022, the Supreme Court denied the Public Advocate's petition and the Water Department's cross petition for allocator; therefore, Commonwealth Court's decision stands. The Court of Common Pleas is to re-review two issues: (1) the City Treasurer's non-recusal; and (2) the sufficiency of the Hearing Officer Report. On June 28, 2022, the Rate Board received a settlement proposal from the Public Advocate, which is currently under review by the Rate Board. The City continues to evaluate its litigation strategy amidst ongoing developments.

Annual Rate Adjustment – TAP Rate Reconciliation

In a rate proceeding that occurred in July of 2018, the Rate Board approved a TAP Rate Rider Surcharge and reconciliation process, which permits annual increases or decreases of certain rates to recover lost revenues related to the TAP Program to prevent either over or under recovery. The Water Department commenced its 2022 annual rate adjustment proceeding by filing an Advance Notice of the proposed adjustments to rates and charges and a Preliminary Proposed Reconciliation Statement with the Rate Board and City Council on January 21, 2022. The Water Department submitted its Formal Notice of the proposed adjustments to rates and charges and Final Preliminary Proposed Reconciliation Statement to the Department of Records and the Rate Board on or about February 25, 2022. Discovery, public input and technical hearings ensued during the period from February to April of 2022. A Joint Petition for Settlement (the "Joint Petition") was entered into by the Water Department and Public Advocate on April 22, 2022, memorializing a compromise that was reached as to the main issue in controversy: the average number of TAP participants projected for the period beginning September 1, 2022. The Hearing Officer recommended the approval of the Joint Petition on May 12, 2022. The Rate Board delivered its decision on June 15, 2022, finding the rates and charges proposed in the Joint Petition to be just and reasonable with estimated increased TAP-R revenues of approximately $3.7 million in Fiscal Year 2023.

TAP Rate reconciliation proceedings are conducted annually by the Water Department. The period from the filing of the Advance Notice of proposed adjustments to rates and charges to the effective date of new rates is approximately 90 days.

Residential Monthly Water and Sewer Rate Charges

Table 13 below shows monthly water and sewer rate charges for Fiscal Years 2020 through 2023 and is based, in each case, on a typical residential customer with a 5/8-inch meter using 500 cubic feet per month.

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Table 13
Typical Residential
Monthly Water and Sewer and Stormwater Rate Charges

	Effective Date	Water	Sewer	Stormwater	Service Charge	Total	Percentage Change
5/8" Meter Residential 500 Cu. Ft. Monthly	9/1/2022	$25.00	$18.10	$18.05	$12.47	$73.62	6.5%
	9/1/2021	23.34	16.85	16.86	12.10	69.15	3.6
	10/1/2020	22.69	16.02	15.80	12.22	66.73	-0.4
	9/1/2019	22.76	16.21	15.80	12.22	66.99	1.0

Billing and Collections

Under the Charter, the Water Revenue Bureau is directly responsible for the billing, metering and collection of revenues for the Water Fund. Since February 2003, oversight of the Water Revenue Bureau has been under the City's Revenue Commissioner, who reports directly to the Finance Director. The Water Revenue Bureau uses outside collection agencies to collect delinquent accounts.

The Water Department's overall cumulative collection factor was approximately 94% for Fiscal Year 2021 and Fiscal Year 2022. Collections also are expected to be negatively affected by the moratorium on residential account shut offs that effectively remained in effect until the first residential account shut offs occurred the week of July 25, 2022. See "INTRODUCTORY STATEMENT – COVID-19 Response" herein.

The City continues to pursue a multifaceted strategy for improving collections while decreasing delinquencies, key compliance strategies of which include revocation of commercial licenses and sequestration. Although these efforts have concentrated primarily on general fund revenues, certain improvements in processes and equipment may affect Water Fund revenues. The financial projections provided herein do not include any additional revenue or acceleration of revenue as a result of these initiatives. See also "OUTSTANDING INDEBTEDNESS AND OTHER LONG-TERM AGREEMENTS – Other Obligations – Contract for Advanced Meter Reading Infrastructure."

MANAGEMENT INITIATIVES

The Water Department has implemented several initiatives designed to increase the efficiency of its operations and reduce costs.

Water Accountability

The Water Department has been successful in developing and implementing programs to recover uncaptured revenue through reduction in the loss of finished water from the distribution system. The Water Department's non-revenue water was 91.8 MGD for Fiscal Year 2019, 94.6 MGD for Fiscal Year 2020 and 102.6 MGD for Fiscal Year 2021. The Water Department accounts for all finished water as either consumption or losses. Losses are accounted for in two ways: (i) apparent losses are calculated losses, due to customer meter inaccuracies, billing errors or unauthorized consumption that cause water utilities to lose a portion of consumption-based revenue, and (ii) real losses are physical losses, largely leakage, that cause excess production costs for water utilities.

The Water Department operates a Customer Meter Management Program and a Revenue Protection Program, which have increased billings by approximately $4.5 million in Fiscal Year 2019, $2.6 million in Fiscal Year 2020 and $2 million in Fiscal Year 2021. See also "OUTSTANDING INDEBTEDNESS AND OTHER LONG TERM AGREEMENTS – Other Obligations – Contract for Advanced Meter Reading Infrastructure" for more information on the program.

The Water Department conducts a variety of activities to proactively contain leakage losses, including (i) the Leak Detection Program, (ii) the district metered area and (iii) the hydrant tracking program. The Water Department was one of the first water utilities in the United States to employ such techniques to mitigate leakage and lessen the occurrence of water main breaks. Through the Leak Detection Program, the Water Department also contracts for in-line leak detection in active large-diameter transmission water piping. This service has added another highly effective tool to minimize lost water. The small pilot district metered area has achieved up to 90% reduction in the leakage rate through installed instrumentation to control leakage by advanced pressure management. Finally, the hydrant tracking program has resulted in hydrant availability remaining significantly above 99% through initiatives such as routine inspection, repair and painting.

Wastewater Master Planning

The Philadelphia Water Department is developing an updated Wastewater Master Plan that outlines a comprehensive, integrated, and actionable 25-year Capital Improvement Program for the Water Department's wastewater facilities, including wastewater plants, pumping stations, and other vertical assets. The plan intends to inform all aspects of the Water Department's wastewater facilities, including future capacity needs, existing and alternative treatment technologies, regulatory requirements, the regulatory requirements contained in the COA, and land-use planning. The plan is anticipated to be completed in calendar year 2023, with an implementation program to follow.

Water Master Planning

The Water Facilities Planning Program developed a 25-year Water Revitalization Plan that outlines a program to upgrade the City's drinking water treatment and supply facilities. The improvements identified in the plan are required to address aging infrastructure to increase the reliability of the Water System and ensure sustainable delivery of safe, clean and affordable drinking water. The Water Revitalization Plan focuses on six key categories: water quality, operability, capital availability, water quantity, service pressure and public perception. The plan was completed in early calendar year 2019 and projects the capital improvement needs at water treatment, pumping and storage facilities over a 25-year period, which will assist the Water Department in developing the Water Capital Improvement Program and prioritizing capital projects. The Water Revitalization Plan has identified approximately 400 projects to rehabilitate existing facilities and construct several new facilities. The estimated cost of these projects over the next 25 years is $2.5 billion. See also " – Security of Water Department Facilities and Water Supply and AWIA" below.

Security of Water Department Facilities and Water Supply and AWIA

The Water Department draws and conducts nearly one thousand tests on water samples from various locations each day. Online water quality monitors provide continuous testing during all stages of the treatment process. The City also has implemented a surveillance and response system, a source water protection program and the Delaware Valley Early Warning System for the Schuylkill and Delaware Rivers and surrounding areas. To further ensure the safety of the City's drinking water, the Water Department utilizes the surveillance and response system to monitor water quality using online instrumentation that allows real-time tracking of water conditions at strategic locations throughout the City's water distribution system. Additional upgrades are planned to enhance security at the three water treatment plants and the pumping stations.

The Water Department has performed a vulnerability analysis of its entire potable water system and has extensive water quality monitoring, protection and security plans in place. America's Water Infrastructure Act of 2018 ("AWIA") requires the Water Department to certify completion of a Risk and Resilience Assessment and to review or update, as applicable, its Emergency Response Plan. The Risk and Resilience Assessment has been completed, and its major findings were presented to the Water Department's senior management at the end of February 2020. Overarching themes from the Risk and Resilience Assessment include that the Water Department should (i) proceed with the Water Revitalization Plan, (ii) continue to strengthen efforts around cybersecurity, and (iii) remain an active partner in river basin planning efforts with respect to water supply and drought mitigation. The Water Department submitted its Emergency Response Plan certification in September 2020.

Watershed Protection

The Water Department's multi-faceted approach to watershed protection includes leveraging regional and national partnerships, applying the latest science and advanced technologies, and developing watershed management strategies that guide watershed protection efforts and infrastructure investment planning. To gain an understanding of emerging risks to Philadelphia's water supply, the Water Department has implemented a Source Water Protection program to identify contaminants of emerging concern, track the state of the science in the water industry, and assess the risk to Philadelphia's drinking water supply. The Water Department may collaborate with peer utilities and/or design and implement special water quality monitoring and modeling programs to gather additional information to inform planning initiatives. To mitigate potential impacts to Philadelphia's drinking water from accidental or intentional contamination events in the water supply, the Water Department operates a private web-based communication system that is capable of quickly notifying downstream users of water quality events via phone and email. See also "THE SYSTEM – Environmental Compliance" for a discussion of the System's environmental compliance.

Information Technology Systems and Continuity Planning

The Water Department is increasingly dependent on the continuous and reliable operation of information technology systems and relies on such systems with respect to customer service, billing and accounting and, in some cases, the monitoring and operation of treatment, storage and pumping facilities. In addition, the Water Department relies on these systems to track utility assets and to manage maintenance and construction projects, materials and supplies.

The Water Department continues evaluating various technology systems, installing firewalls, creating cybersecurity policies and developing a cybersecurity program. The Water Department also is developing continuity plans for other emergency situations, including power outages caused by breached computer systems. To mitigate against such emergencies, operators stationed at treatment facilities monitor the control systems 24 hours a day, 7 days a week. In the event of any failure of, or tampering with, the computer systems or other cybersecurity breach, the impact to treatment plant control systems could be recognized and remediated quickly by onsite personnel, including by using standalone backup control panels and field panels to control processes at the treatment plants. See "MANAGEMENT INITIATIVES – Security of Water Department Facilities and Water Supply and AWIA"; see also "CERTAIN INVESTMENT CONSIDERATIONS – Cybersecurity" below and APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Cybersecurity."

Climate Change Initiatives and CCAP

Climate change poses significant challenges to water, wastewater and stormwater utilities across the nation. The impacts of climate change in Philadelphia include, but are not limited to, sea level rise and storm surge, increasing precipitation, higher air temperatures, and increasing severity of storms. These effects are currently happening and will continue to grow in magnitude in the coming century.

While there is uncertainty regarding the specific magnitude, timing and long-term effects of climate change, as well as the nature of future climate change-based regulations, recent extreme storm events like Tropical Storm Ida have highlighted the need to prioritize climate resiliency planning efforts. The Water Department already has many systems and programs in place to monitor, understand and respond to the effects of climate change. In 2014, the Water Department formed its Climate Change Adaptation Program ("CCAP"), which seeks to characterize and reduce the risks and associated expenses that the Water Department will face from the impact of climate change by identifying and implementing effective and feasible adaptation strategies across the Water Department's drinking water, wastewater and stormwater systems. CCAP stays informed on the latest science, regularly engages with climate experts and carries out in-depth assessments to support the development of cost-effective adaptation strategies that leverage existing programs and processes. A primary goal of CCAP is to ensure that climate change information is embedded within all levels of infrastructure planning, design and operations, which has led CCAP to develop Climate-Resilient Planning and Design Guidance ("Guidance") to inform individual projects and long-term planning initiatives. The Guidance includes resilient design flood elevations and actionable information and tools to evaluate the risks associated with sea level rise, storm surge, increasing precipitation and higher air temperatures on the Water Department's infrastructure systems. In 2022, the Water Department adopted a Department-wide policy requiring use of the Guidance in the planning, design and construction of all Water Department projects to the extent feasible, including the renewal and replacement of existing assets and the construction of new assets. To the extent relevant, the Guidance must also be applied to the operation and maintenance of the Water Department infrastructure systems and facilities, including drinking water treatment plants and water pollution control plants. Mainstreaming the use of climate information in the Water Department's planning and design processes will help ensure that the Water Department's long-lived investments remain operationally and economically viable, despite the impacts of climate change.

In addition to disseminating and utilizing climate risk information to inform planning processes, design standards, operational strategies and infrastructure investments, CCAP is pursuing a number of other initiatives including: performing comprehensive, onsite risk assessments at treatment facilities and developing adaptation strategies to protect existing infrastructure; regularly coordinating with the Water and Wastewater Master Planning Programs to ensure that climate projections are considered in planning processes; regularly working with other City agencies, local and regional stakeholders, peer utilities and industry experts to address climate-related risks and further enhance adaptation planning efforts.

CCAP aims to help address the System's climate-related risks to enable the Water Department to maintain current levels of service under changing climatic conditions. However, despite the Water Department's planning efforts, the precise effects of climate change continue to be indeterminate. See "CERTAIN INVESTMENT CONSIDERATIONS – Climate Change" below.

For further discussion of climate change and its potential effects on the City, see "APPENDIX III – GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – The Government of the City of Philadelphia – Climate Change."

CERTAIN INVESTMENT CONSIDERATIONS

Introduction

The purchase of the Bonds involves numerous investment risks, some of which are referred to in this Official Statement. No representation is made that the risks described or referred to in this Official Statement constitute all of the risks associated with investing in the Bonds. Accordingly, prior to making a decision to invest in the Bonds, each prospective purchaser thereof should make an independent evaluation of all of the information presented in this Official Statement, including the Appendices, and should review other pertinent information.

COVID-19

The City has taken various emergency measures and other actions to respond to the spread of COVID-19 in the City. The City and the Water Department continue to closely monitor and assess the effects of the COVID-19 pandemic and its impact on finances and operations. For more information on the City's and the Water Department's responses to COVID-19 and the related financial and operational effects, see "INTRODUCTION – COVID-19 Response", "CAPITAL IMPROVEMENT PROGRAM – Table 6 – Top Ten Active Capital Projects by Estimated Cost" and " – Water Main Replacement" and " – Sewer Replacement and Renewal Program", "HISTORICAL AND PROJECTED FINANCIAL INFORMATION – Historical Operating

Results (Legally Enacted Basis)" and " – The Water Department's Budget", "RATES – Current Base Rates, 2021 Rate Proceeding and 2022 Special Rate Proceeding" and " – Billing and Collections" and APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – OVERVIEW – Fiscal Health of the City – COVID-19."

System Revenues, Expenditures, Financing and Capital Assets

Actual operation, maintenance and repair expenses of the System may be greater or less than currently projected. Factors such as damages to facilities and infrastructure, changes in technology, regulatory standards, and increased costs of material, energy, labor and administration can substantially affect the expenses of the Water Department. Although the City has covenanted to set rates and charges in amounts sufficient to pay debt service on all Water and Wastewater Revenue Bonds, including the Bonds, in accordance with the provisions of the General Ordinance, there can be no assurance that amounts will be so sufficient or that sufficient amounts will be collected. Furthermore, increases in rates and charges could result in a decrease in demand for usage and result in a decrease in revenues.

Operation of the System requires significant capital expenditures that are partially dependent on the City's ability to secure appropriate financing. Disruptions in the capital and credit markets may limit the City's access to capital. Without sufficient capital, or if the cost of borrowing increases, it may materially and adversely affect the business, financial condition, and results of operations of the Water Department or its ability to timely undertake its capital improvement program.

Water and wastewater operations entail specific risks and may impose significant costs. Wastewater collection and treatment and septage pumping and sludge hauling involve various unique risks. If collection or treatment systems fail or do not operate properly, or if there is a spill, untreated or partially treated wastewater could discharge onto property or into nearby streams and rivers, causing various damages and injuries, including environmental damage. These risks are most acute during periods of substantial rainfall or flooding, which are the main causes of CSO and system failure. Any failure of water and wastewater treatment plants, networks of water and wastewater pipes, or water reservoirs could result in losses and damages that may adversely affect the business, financial condition, and results of operations of the Water Department.

General Economic Conditions

General economic conditions may affect the Water Department's financial condition and results of operations. A general economic downturn may lead to a reduction in discretionary and recreational water use. General economic turmoil also may lead to an investment market downturn, which may result in asset market values (including pension plan assets) suffering a decline and significant volatility. For instance, a decline in the City's pension plans' asset market values could increase required cash contributions to these plans from the Water Fund and increased pension expenses in subsequent years.

Environmental Regulations

The City is subject to state and federal environmental laws and regulations applicable to the System. These laws and regulations are subject to change, and the City may be required to expend substantial funds to meet the requirements of such changing laws and regulations in the future. Failure to comply with these laws and regulations may result in the imposition of administrative, civil and criminal penalties, or the imposition of an injunction requiring the City to take or refrain from taking certain actions. In addition, the City may be required to remediate contamination on properties owned or operated by the City or on properties owned by others but contaminated as a result of City operations.

Water and wastewater services are governed by various federal and state environmental protection and health and safety laws and regulations, including the federal Safe Drinking Water Act, the Clean Water Act and similar state laws, and federal and state regulations issued under these laws by the EPA and PADEP. These laws and regulations establish, among other things, criteria and standards for drinking water and for discharges into the waters of the United States and nearby states. Pursuant to these laws, the Water Department is required to obtain various environmental permits for operations. Violations or noncompliance could result in fines or other sanctions by regulators and/or such violations or noncompliance could result in civil suits. Environmental laws and regulations are complex and change frequently. These laws, and the enforcement thereof, have tended to become more stringent over time. While the Water Department has budgeted for future capital and operating expenditures to comply with these laws and permitting requirements, it is possible that new or stricter standards could be imposed that will require additional capital expenditures or raise operating costs. For a discussion of environmental regulations and the System's environmental compliance, see also "THE SYSTEM – Environmental Compliance."

Weather and Seasonal Fluctuations

The Water Department's operations are affected by weather conditions and are subject to seasonal fluctuations, which could adversely affect demand for services and revenues and earnings.

The Water Department depends on an adequate water supply to meet the present and future demands of customers. Drought conditions could interfere with sources of water supply and could reduce demand due to the implementation of the Water Department's drought emergency restrictions, which could adversely affect the Water Department's ability to supply water in sufficient quantities to existing and future customers. An interruption in water supply could have a material adverse effect on the operations and financial condition of the Water Department.

Climate Change

Despite the Water Department's planning efforts, due to uncertainty in the specific timing, magnitude and long-term effects of climate change, the full extent of future climate change impacts on the System and its operations are indeterminate. No assurance can be given that the System will not encounter negative environmental and infrastructural consequences as a result of climate change and that such events will not have a material adverse effect on the operations or financial condition of the Water Department. See "MANAGEMENT INITIATIVES – Climate Change Initiatives and CCAP" herein for a discussion of the measures currently undertaken by the Water Department to address climate change.

Security of the System

Damage to the System resulting from information technology breaches, vandalism, sabotage, or terrorist activities may adversely affect the operations and financial condition of the System. There can be no assurance that the City's security, emergency preparedness and response plans will be adequate to prevent or mitigate such damage, or that the costs of maintaining such security measures will not be greater than currently anticipated. See "MANAGEMENT INITIATIVES – Security of Water Department Facilities and Water Supply and AWIA" and also "– Information Technology Systems and Continuity Planning" for efforts the Water Department has taken to secure the System.

Cybersecurity

Information technology systems are vulnerable to a range of cybersecurity-related risks. These risks include, without limitation, data breaches and system compromises resulting from, ransomware attacks, attacks from hackers, email phishing campaigns, computer viruses, physical or electronic break-ins, insider threats, system misconfigurations, and other methods of compromise that have become increasingly sophisticated. Such events or issues could lead to the disclosure of personally identifiable information or other confidential or proprietary information, could have an adverse effect on the ability of the Water Department to operate, and could result in significant exposure and substantial costs to the Water Department. The City carries cybersecurity insurance consistent with market practice for similarly sized municipalities. The City's Office of Innovation and Technology follows industry best practices, develops City-wide security policies, provides regular security training to all City employee users, and uses security tools to mitigate, prevent, deter, and respond to incidents if and when they occur. See APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Cybersecurity" for more information regarding the City's cyber-security tools and practices.

No assurance can be given that the Water Department will not be exposed to cyber threats or attacks or that such incidents will not have a material adverse effect on the operations and financial condition of the Water Department.

Limited Recourse on Default

The rights of Bondholders are limited in the event the City defaults on its obligation to pay debt service on the Bonds. 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. See "REMEDIES OF BONDHOLDERS" and APPENDIX II-A – "SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS – Summary of Operative Provisions of the General Ordinance – Remedies to be Enforced Only Against Project Revenues" herein.

Bankruptcy

The rights of the owners of the Bonds are subject to the limitations on legal remedies against the City, including applicable bankruptcy, moratorium, insolvency or other laws affecting creditor's rights or remedies and are subject to general principles of equity (regardless of whether such enforceability is considered in equity or at law), to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against governmental entities in the Commonwealth of Pennsylvania. Bankruptcy proceedings, or the exercise of powers by the federal or state government, if initiated, could subject the owners of the Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise, and consequently may entail risks of delay, limitation, or modification of their rights or the modification of City covenants affecting the System or Project Revenues.

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 ("PICA") has outstanding any bonds issued pursuant to the PICA Act ("PICA Bonds"). In order to file for bankruptcy under Chapter 9 after the PICA Bonds have been repaid in full, the City must obtain the written approval of the Governor of the Commonwealth. As of June 30, 2022, the principal amount of PICA Bonds outstanding was $10,870,000. The final maturity date of the PICA Bonds is June 15, 2023. The PICA Tax secures the PICA Bonds. Pursuant to the PICA Act, when no PICA Bonds are outstanding, the PICA Tax will expire. Over the years, the City has expressed a desire to retain the financial oversight and reporting requirements of the PICA Act beyond the expiration of the PICA Bonds. House Bill 1935, proposing to amend the PICA Act to, among other things, extend PICA's term of existence, has passed both houses of the General Assembly and has been signed by the Governor. For more information, see APPENDIX III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – The Government of the City of Philadelphia – Local Government Agencies – Non-Mayoral-Appointed or Nominated Agencies – PICA."

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 the 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 primarily used or intended to be used primarily to provide transportation, utility or other services, including the proceeds of borrowings 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 would remain subject to the lien created by the General Ordinance in favor of the Bondholders but would be subject to the payment of Operating Expenses of the System, which are priority payments. A bankruptcy court's interpretation of 'necessary operating expenses' under the Federal Bankruptcy Code could differ from the definition of Operating Expenses of the System under the General Ordinance. The Federal Bankruptcy Code also provides that a pre-bankruptcy 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. Although Project Revenues appear to satisfy this definition, no assurance can be given that a court would hold that Project Revenues are special revenues. If Project Revenues were determined not to be "special revenues," then there is a risk that Project Revenues collected after the commencement of the bankruptcy case would not be subject to the lien of the General Ordinance, such that the recovery by holders of the Bonds could be negatively affected.

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, the City may be able to defer the application of Bond proceeds, Project Revenues or the pledged Water and Wastewater Funds to payment of the Bondholders during the pendency of the bankruptcy case, but the lien on such funds and revenues would remain, and would continue to encumber such funds and revenues (subject again to payment of 'necessary operating expenses' and Operating Expenses of the System, to the extent these differ from 'necessary operating expenses' as determined by a bankruptcy court under the Federal Bankruptcy Code). Even if a bankruptcy court had the power to compel immediate payment, the court, in the exercise of its equitable powers, could decline to require the City to use Bond proceeds, Project Revenues and the Water and Wastewater Funds to pay Bondholders during the pendency of the case.

The debtor may file a plan for the adjustment of its debts that 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 that 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 under certain circumstances, 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.

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Water Conservation

Decreased customer water consumption as a result of water conservation efforts may adversely affect demand for water services and may reduce revenues and earnings. There may be declines in water usage per customer as a result of an increase in conservation awareness, and the structural impact of an increased use of more efficient plumbing fixtures and appliances. Difficulty obtaining future rate increases to offset decreased customer water consumption to cover investments and expenses, may adversely affect the business, financial condition, and results of operations of the Water Department.

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, although 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 for amounts on deposit in the Sinking Fund, including the Debt Reserve Account. While the City has covenanted not to direct the Fiscal Agent to transfer Project Revenues other than as permitted under the General Ordinance, no requisition procedure or other similar procedure will be established for the expenditure of monies by the City from the Water and Wastewater Funds (other than the Sinking Fund, including the Debt Reserve Account), 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 such monies. For more information on the limitations of the pledge, see "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Limitations on Effectiveness of Pledge of Project Revenues and Water and Wastewater Funds."

Debt Covenants

The City is obligated to comply with the Rate Covenant and other debt covenants under certain agreements, including its insurance contracts. Failure to comply with such covenants, which if not cured or waived, could result in the City's being required to repay or finance the related borrowings before their due date, limit future borrowings, cause cross default issues, and increase borrowing costs. If forced to repay or refinance (on less favorable terms) these borrowings, the Water Department's business, financial condition, and results of operations could be adversely affected by increased costs and rates.

LITIGATION AND CLAIMS

Claims against the City relating to the Water Department are paid out of the Water and Wastewater Funds and only secondarily out of the City's General Fund, in the event cash balances in the Water and Wastewater Funds are insufficient at the time of payment of the claim. The General Fund is then reimbursed by the Water and Wastewater Funds for any such advance. The following discussion concerning litigation and claims, which has been prepared based on information supplied by the Law Department of the City and has been reviewed by the Law Department of the City, 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 III – "GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA – Litigation."

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

The Water Department paid \$4.4 million and \$3.0 million in Fiscal Year 2020 and Fiscal Year 2021, respectively. The Fiscal Year 2022 budget was \$7.5 million, and as of June 30, 2022, the Water Department paid \$5.9 million in claims. The Fiscal Year 2023 budget is \$6.0 million.

TAX MATTERS

Federal Tax Matters

In the opinion of Ballard Spahr LLP and Ahmad Zaffarese LLC, Co-Bond Counsel, interest on the Bonds is excludable from gross income for purposes of federal income tax, under existing laws as enacted and construed on the date of initial delivery of the Bonds, assuming the accuracy of the certifications of the City and continuing compliance by the City with the requirements of the Internal Revenue Code of 1986 (the "Code"). Interest on the Bonds is not an item of tax preference for purposes of federal alternative minimum tax imposed on individuals. Co-Bond Counsel expresses no opinion regarding other federal tax consequences relating to ownership or disposition of, or the accrual or receipt of interest on, the Bonds.

Original Issue Premium. Certain of the Bonds may be offered at a premium ("original issue premium") over their principal amount. For federal income tax purposes, original issue premium is amortizable periodically over the term of a Bond through reductions in the bondholder's tax basis for the Bond for determining taxable gain or loss upon sale or redemption prior to maturity. Amortization of premium does not create a deductible expense or loss. Bondholders should consult their tax advisers for an explanation of the amortization rules.

No Other Opinions. Bond Counsel expresses no opinion regarding other federal tax consequences relating to ownership or disposition of, or the accrual or receipt of interest on, the Bonds.

State Tax Matters

In the opinion of Co-Bond Counsel, under the laws of the Commonwealth of Pennsylvania as enacted and construed on the date of initial delivery of the Bonds, interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax. The Bonds and the interest thereon may be subject to state or local taxes in jurisdictions other than the Commonwealth under applicable state or local tax laws. Co-Bond Counsel will express no other opinion regarding other tax consequences with respect to the Bonds, including whether or not interest on the Bonds is subject to taxation under the laws of any jurisdiction other than the Commonwealth of Pennsylvania.

General

The opinions expressed by Co-Bond Counsel are based upon existing legislation and regulations as interpreted by relevant judicial and regulatory authorities as of the date of the initial issuance and delivery of the Bonds, and Co-Bond Counsel will not express any opinion as of any date subsequent thereto or with respect to any proposed or pending legislation, regulatory initiatives or litigation.

The foregoing is only a general summary of certain provisions of the Code as enacted and in effect on the date hereof and does not purport to be complete; holders of the Bonds should consult their own tax advisors as to the effects, if any, of the Code in their particular circumstances.

The proposed form of the opinion of Co-Bond Counsel is attached hereto as APPENDIX V.

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 of Pennsylvania and shall be negotiable instruments.

UNDERWRITING

The Bonds are being purchased by the underwriters listed on the front cover page of the Official Statement (collectively, the "Underwriters") pursuant to a Bond Purchase Agreement between the City and RBC Capital Markets, LLC, on behalf of itself and as representative of the other Underwriters, at a purchase price of $337,252,767.49, which equals the principal amount of the Bonds of $294,810,000.00, plus original issue premium of $43,654,508.05, less an aggregate Underwriters' discount of $1,211,740.56. 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 Bond Purchase Agreement.

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.

Certain of the other Underwriters have entered into distribution agreements with other broker-dealers (that have not been designated by the City as Underwriters) for the distribution of the Bonds to retail investors at the original issue prices. Such agreements generally provide that the relevant Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the City and to persons and entities with relationships with the City, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the City (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the City. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

RATINGS

Fitch, Moody's and S&P have assigned to the Bonds municipal bond ratings "A+", "A1" and "A+", respectively, each with a stable outlook. 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.

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, 7 World Trade Center, 250 Greenwich Street, New York, New York 10007; S&P, 55 Water Street, New York, New York 10041; and Fitch, 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.

The Underwriters have not assumed responsibility to advise the owners of the Bonds of any change in any rating on the Bonds and neither the City nor the Underwriters have undertaken any responsibility to maintain any particular rating on the Bonds. The City has agreed, in the Continuing Disclosure Agreement, to report actual rating changes on the Bonds. See "CONTINUING DISCLOSURE" herein and APPENDIX VI. Any downward change in or withdrawal of a credit rating may have an adverse effect on the marketability or 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 Ballard Spahr LLP and Ahmad Zaffarese LLC, 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 Greenberg Traurig, LLP and Turner Law, P.C., both of Philadelphia, Pennsylvania, Co-Disclosure Counsel. Certain legal matters relating to the information contained in APPENDIX III and APPENDIX IV will be passed upon for the City by Hawkins Delafield & Wood LLP. Certain legal matters will be passed upon for the Underwriters by Eckert Seamans Cherin & Mellott, LLC, of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the City by the City Solicitor.

FINANCIAL ADVISORS

PFM Financial Advisors LLC, of Philadelphia, Pennsylvania and Acacia Financial Group, Inc., of Mount Laurel, New Jersey, have been retained by the City as Co-Financial Advisors in connection with the issuance of the Bonds and, in such capacity, have assisted the City in the preparation of Bond-related documents. The Co-Financial Advisors' fee for services rendered with respect to the sale of the Bonds is contingent upon the issuance and delivery of the Bonds. Although the Co-Financial Advisors have read and participated in the preparation of this Official Statement, they have not independently verified any of the information set forth herein. The information contained in this Official Statement has been obtained primarily from the City's records and from other sources that are believed to be reliable, including financial records of the City, reports of consultants and other entities that may be subject to interpretation. No guarantee is made as to the accuracy or completeness of any such information. No person, therefore, is entitled to rely upon the participation of the Co-Financial Advisors as an implicit or explicit expression of opinion as to the completeness and accuracy of the information contained in this Official Statement.

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 that, among other things, and except as disclosed in this Official Statement, there is no litigation or other legal proceeding pending, or, to the best of his knowledge after customary inquiry, 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 and the General Ordinance set forth herein and in APPENDIX II-A 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 entireties 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.

CONTINUING DISCLOSURE

In order to assist the Underwriters in complying with the requirements of Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended (the "Rule"), the City (i) will enter into a Continuing Disclosure Agreement with Digital Assurance Certification, L.L.C., as dissemination agent, for the benefit of the holders of the Bonds, to be dated the date of original delivery and payment for the Bonds, the form of which is annexed hereto as APPENDIX VI, and (ii) has provided the disclosure in the following paragraph.

To assist the City in complying with its continuing disclosure undertakings, the City reviews and updates its disclosure policies and procedures as necessary on an ongoing basis.

CERTAIN RELATIONSHIPS

Ballard Spahr LLP and Ahmad Zaffarese LLC, Co-Bond Counsel, and Turner Law, P.C. and Greenberg Traurig, LLP, Co-Disclosure Counsel, represent some of the Underwriters of the Bonds, from time to time, in matters unrelated to the issuance of the Bonds. Eckert Seamans Cherin & Mellott, LLC, counsel to the Underwriters, represents the City from time to time in matters unrelated to the Bonds. Black & Veatch Management Consulting, LLC, the Consulting Engineer, provides ongoing consulting services to the Water Department.

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This Official Statement has been duly executed and delivered by the following officer on behalf of the City of Philadelphia, Pennsylvania.

THE CITY OF PHILADELPHIA, PENNSYLVANIA

By: /s/ Rob Dubow
Rob Dubow, Director of Finance

APPENDIX I

FINANCIAL STATEMENTS OF THE WATER FUND DERIVED FROM THE CITY'S AUDITED ANNUAL COMPREHENSIVE FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2021

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City of Philadelphia
Philadelphia Water Department
Financial Statements
Fiscal Years Ended June 30, 2021 and 2020

CITY OF PHILADELPHIA WATER DEPARTMENT

YEAR ENDED JUNE 30, 2021 AND 2020

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The City of Philadelphia Water Department Management Discussion and Analysis

The Philadelphia Water Department is one of the City's ten operating departments and its activities are accounted for under a dedicated Water Fund established pursuant to the Philadelphia Home Rule Charter. Pursuant to the Charter, the Water Department has the power and duty to operate, maintain, repair, and improve the City's water system (the "Water System"), the City's wastewater system (the "Wastewater System") and, together, the "Water and Wastewater Systems" (or the "Combined System").

The Water Department's primary mission is to plan for, operate, and maintain both the infrastructure and the organization necessary to purvey high-quality drinking water, to provide an adequate and reliable water supply for all household, commercial, and community needs, and to sustain and enhance the region's watersheds and quality of life by managing wastewater effectively.

The Water Department serves the City of Philadelphia and also provides wastewater services to ten bulk customers and water services to one bulk water customer. The Water Department operates three drinking water plants which have the capacity to treat and deliver about 546 million gallons per day of top quality drinking water that meets or exceeds all federal, state, and local regulations. Additionally, it operates three water pollution control plants that have the capacity to treat over 1 billion gallons of wastewater per day at a level that meets or exceeds federal and state standards.

The operations and activities of the Water Department are accounted for with a separate set of balancing accounts that comprise the assets, deferred outflows of resources, liabilities, deferred inflows of resources, net position, revenues, and expenses. The activity of the Water Department is grouped in the financial statements into the broad category referred to as an enterprise fund (the "Water Fund"). The Water Fund is comprised of the funds and accounts established by the City under its Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended (the "General Ordinance").

2021 Financial Highlights

The Water Fund met its required coverage ratios for the year with a Senior Coverage ratio of 1.27, 90% Test Coverage ratio of 1.12, and a Total Payments Coverage ratio of 1.10[1]. At the end of the current fiscal year, the Water Fund's net position totaled $875 million resulting from an excess of its assets and deferred outflows of resources over its liabilities and deferred inflows of resources; its unrestricted net position showed a deficit of $296 million. This deficiency will have to be funded from resources generated in future years.

The Water Fund's net position showed a $48 million increase during the current fiscal year compared with the prior fiscal year increase of $5 million.

[1] Senior Coverage : Net Revenues must equal at least 120% of the Debt Service Requirements payable in such fiscal year (excluding debt service due on any Subordinated Bonds).
90% Test Coverage: Net Revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such fiscal year) must equal at least equal to 90% of the Debt Service Requirements (excluding debt service on any Subordinated Bonds) payable in such fiscal year.
Total Payments Coverage: Net Revenues must equal at least 100% of: (i) the Debt Service Requirements (including Debt Service Requirements in respect of Subordinated Bonds) payable in such fiscal year; (ii) amounts required to be deposited into the Debt Reserve Account during such fiscal year; (iii) debt service on all General Obligations Bonds issued for the Water and Wastewater Systems payable in such fiscal year; (iv) debt service 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 rates, rents, fees, and charges at least annually.

Overview of the Financial Statements

This section serves as an introduction to the Basic Financial Statements. It represents management's examination and analysis of the Water Fund's financial condition and performance.

The Financial Statements report information about the Water Fund using the Full Accrual Accounting method as used by similar business activities in the private sector. The Water Fund's basic financial statements include the Statements of Fund Net Position, Statements of Revenues, Expenses, and Changes in Net Position, Statements of Cash Flows, and Notes to the Financial Statements.

The financial statements are prepared in accordance with accounting principles promulgated by the Governmental Accounting Standards Board ("GASB").

> **Statement of Fund Net Position:** The statement of net position presents the financial position of the Water Fund. It presents information on the assets, deferred outflows of resources, liabilities, and deferred inflows of resources with the difference between them reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Water Fund is improving or deteriorating.
>
> **Statement of Revenues, Expenses, and Changes in Net Position:** The statement of revenues, expenses, and changes in net position presents information showing how the net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Revenues are recognized when earned, not when they are received. Expenses are recognized when incurred, not when they are paid. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future fiscal periods (e.g., salaries and wages payable).
>
> **Statement of Cash Flows:** The statement of cash flows presents information on the effects changes in assets, liabilities, and operations have on cash during the course of the fiscal year.

The Water Fund's financial statements can be found following the Management Discussion and Analysis. The notes provide additional information that is essential to a full understanding of the data provided in the Water Fund financial statements. In addition to the basic financial statements and accompanying notes, government accounting standards require presentation of required supplementary information ("RSI"). Following the RSI, the Fund has presented other supplementary information ("OSI").

Please see the Annual Comprehensive Financial Report of the City of Philadelphia for complete financial information for the City and its component units, which can be found at https://emma.msrb.org/.

Financial Analysis

Net Position

A three year condensed summary of the Water Fund's net position as of June 30 of each year follows:

Condensed Statements of Net Position
(Thousands of Dollars)
June 30

	2021	2020	2019
Assets:			
Current Assets	$ 340,427	$ 309,155	$ 284,260
Capital Assets	2,917,035	2,783,276	2,655,300
Restricted Assets	778,914	810,973	749,096
Total Assets	4,036,376	3,903,404	3,688,656
Deferred Outflows of Resources	80,267	78,669	72,125
Total Assets and Deferred Outflows	4,116,643	3,982,073	3,760,781
Liabilities:			
Current Liabilities	216,629	235,684	240,323
Bonds Payable Net	2,411,861	2,272,455	2,070,390
Other Non-Current Liabilities	540,140	631,083	609,514
Total Liabilities	3,168,630	3,139,222	2,920,227
Deferred Inflows of Resources	72,875	16,088	18,470
Total Liabilities and Deferred Inflows	3,241,505	3,155,310	2,938,697
Net Position:			
Net Investment in Capital Assets	643,531	655,874	649,536
Restricted	527,697	541,346	545,506
Unrestricted	(296,090)	(370,457)	(372,958)
Total Net Position, as Restated	$ 875,138	$ 826,763	$ 822,084

The Water Fund's net position at June 30, 2021 was approximately $875.1 million, a $48.4 million or 5.9% increase from June 30, 2020. Total assets and deferred outflows of resources increased by $134.6 million, or 3.4% to $4.1 billion, and total liabilities and deferred inflows of resources increased $86.2 million, or 2.7%, to $3.2 billion.

The following is a discussion of the more significant changes in assets and deferred outflows of resources, liabilities and deferred inflows of resources, and net position in fiscal year 2021:

- Total current assets increased by $31.3 million to $340.4 million, or 10.1%, due mainly to increases in Cash and Cash Equivalents in the Water Operating Fund of $38.1 million. The increase was partially offset by a decrease in Accounts Receivable of $10.4 million. Accounts Receivable decreased in FY 2021 mainly due an increase in fiscal year charge offs of $6.2M, or 58% greater than FY 2020 charge offs.

- Restricted assets decreased by $32.1 million to $778.9 million, or 4.0% in FY 2021, due to decreases in the Water Capital Fund of $14.2 million, which were impacted by reduced transfers to Water Capital Fund from current revenues and lower proceeds from bond sales. The Rate Stabilization Fund also decreased by $24.6 million due to the year-end transfer to the Operating Fund. These decreases were partially offset by an increase to Sinking Funds and Reserves of $12.8 million due to the year-end balance in the Capitalized Interest account.

- Total current liabilities decreased by $19.1 million to $216.6 million, or 8.1%. This was mainly due to a decrease in Accrued Expenses of $15.1 million. Accrued Expenses decreased due to the decrease in Accrued Interest Payable on the Department's bonds. The decrease is due to the bonds that were refunded in FY 2021.

- Other noncurrent liabilities decreased by $90.9 million to $540.1 million, or 14.4%, primarily due to a decrease in net pension liability which was partially offset by an increase in net OPEB liability.

- Net Pension Liability decreased by $107.9 million, or 24.5%, in FY 2021 to $333.1 million. This was due to Pension Fund 2021 investment gains and the fully recognized investments loss of 2016 being fully recognized in FY 2020.

- Deferred inflows of resources increased by $56.8 million in FY 2021 to $72.9 million primarily due to deferred inflows of resources related to net pension liability (see above).

- The Water Fund's net position increased by $48.4 million to $875.1 million, or 5.9% as a result of fiscal year 2021 operations and a prior period adjustment.

- Net investment in capital assets decreased by $12.3 million, or 1.9%, to $643.5 million mainly due to a decrease in unspent bond proceeds offset by increases in bonds payable and deferred outflows and inflows related to unamortized gains and losses of refunded debt.

- Unrestricted net position deficit decreased by $74.4 million, or 20.1%, to a deficit of $296.1 million. The unrestricted component of net position represents the net amount of total assets, deferred outflows of resources, total liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or restricted components of net position.

Changes in Net Position

A condensed summary of the Water Fund's Statement of Revenues, Expenses, and Changes in Net Position for the years ended June 30 is presented as follows:

Condensed Statements of Revenues, Expenses, and Changes in Net Position
(Thousands of Dollars)
Year Ended June 30

	2021	2020	2019
Operating Revenues:			
Charges for Goods and Services	$ 703,048	$ 719,662	$ 732,373
Miscellaneous Operating Revenues	12,776	12,796	13,001
Operating Grants	2,748	860	698
Total Operating Revenues	718,572	733,318	746,072
Operating Expenses:			
Operating Expenses excluding Depreciation and Amortization	411,065	466,172	455,611
Depreciation and Amortization	134,748	125,835	124,315
Total Operating Expenses	545,813	592,007	579,926
Operating Income	172,759	141,311	166,146
Nonoperating Revenues (Expenses):			
Federal, State, & Local Grants	-	550	-
Interest Income	1,095	23,167	24,054
Debt Service – Interest	(70,560)	(87,106)	(74,742)
Other Expenses	(20,071)	(32,237)	(31,110)
Total Nonoperating Expenses	(89,536)	(95,626)	(81,798)
Increase in Net Position before Transfers and Contributions	83,223	45,685	84,348
Transfers Out	(37,160)	(34,682)	(39,917)
Capital Contributions	8,236	304	481
Change in Net Position	54,299	11,307	44,912
Net Position – Beginning of Period, Before Restatement	826,763	822,084	786,641
Reclassification of Expense *	(5,924)	(6,628)	(9,469)
Net Position – Beginning of Period, as Restated	820,839	815,456	777,172
Net Position – End of Period	$ 875,138	$ 826,763	$822,084

*For more information on the restatement, see Note III. 11. to the financial statements.

- Total operating revenues decreased by ($14.7) million to $718.6 million mainly due to lower collected revenues of ($16.6 million) or 2.3% , which was partly offset by a $2.1 million reimbursement from the Coronavirus Relief Fund grant.
- Total operating expenses decreased by $46.2 million to $545.8 million mainly due to decreases in employee benefits costs of $21.2 million related to a decrease in pension expense in FY 2021 and a decrease in purchase of services of $29.3 million. Further details are noted below.
    - Employee Benefits in FY 2021 were reduced due to lower pension expense resulting from the Pension Fund 2021 investment gains and the fully recognized investment loss of 2016 being fully recognized in FY 2020.
    - Purchases of services decreased by $29.3 million due to lower expenditures related to the delayed contracts for the Greened Acre Retrofit Program and increased expenses for Philadelphia Municipal Authority (PMA) lease payments of $8.6 million. The PMA lease payments are included in the Transfers out.
    - Materials and Supplies decreased in FY 2021 by $3.2 million to $35.2 million driven by lower expenditures which were partly offset by increased chemical costs.
    - Depreciation Expense increased by $7.1 million in FY 2021 to $134.8 million. The amount of assets placed into service in FY 2021 increased partly due to the prior period adjustment which recognized projects that were substantially complete in prior periods. Please refer to Note III. 11 for more information related to the prior period adjustment.
- Nonoperating revenues and expenses decreased by $6.1 million to $89.5 million. Further details explaining the decrease in nonoperating revenues and expenses are below:
    - Interest income decreased by $22.1 million in FY 2021 due to low interest rates.
    - Debt Service Interest decreased by $16.5 million to $70.6 million in FY 2021 due to less interest being paid due to the bonds that were refunded in FY 2021.
    - Other Revenues (Expenses) decreased by $12.2 million to ($20.1 million) in FY 2021 which is due mainly to $19 million reduction in fixed asset retirement and expensed work orders partly offset by $3 million prior year capital reimbursement in FY 2020 from an operating expenditure that was incorrectly paid from the capital fund and additional $3.0 million transferred to the Sinking Fund.
    - Transfers Out decreased by $2.5 million in FY 2021 to ($37.2 million). This was due to decrease in the transfer out of the operating fund of $5.6 million which was offset by an increase in the transfer out of the capital fund of $0.7 million. Both transfers were for payments to the Philadelphia Municipal Authority (PMA). The transfer out of the residual fund increased by $2.4 million. This represented a decrease in the Scoop payment for FY 2021 due to lower interest earnings.
    - Capital Contributions increased by $7.9 million to $8.2 million in FY 2021. This was due to an increase in donated assets such as extensions to water and sewer lines become part of the Water and Wastewater System. Per GASB 72, donated assets are measured at fair value.

Capital Assets and Debt Administration

Capital Assets

Investment in capital assets, net of accumulated depreciation, amounted to $2.9 billion as of June 30, 2021. This represented an increase of $133.8 million, or 4.8% over the previous year's total of $2.8 billion. Capital assets consist primarily of land, infrastructure, construction in progress, buildings, and equipment. Infrastructure consists of water and wastewater transmission and distribution lines. The following is a summary of capital assets as of June 30:

Capital Assets
(Thousands of Dollars)
June 30

	2021	2020	2019
Land	$ 5,969	$ 5,969	$ 5,919
Construction in Progress	620,765	772,229	666,130
Infrastructure	2,823,414	2,738,473	2,677,405
Buildings and Equipment	2,096,466	1,778,098	1,753,974
Accumulated Depreciation	(2,629,579)	(2,511,493)	(2,448,128)
Total Capital Assets, net	$ 2,917,035	$ 2,783,276	$ 2,655,300

The capital assets of 2021 and 2019 were restated for reclassifications. For more information on the 2021 restatement, see Note III. 11. to the financial statements.

Debt and Noncurrent Liabilities

As of June 30, 2021, the Water Fund had $3.0 billion of debt and noncurrent liabilities outstanding. This was an increase of $48.5 million from the prior fiscal year. The following is a summary of the debt and noncurrent liabilities outstanding as of June 30:

Debt and Noncurrent Liabilities
(Thousands of Dollars)
June 30

	2021	2020	2019
Revenue Bonds – Net	$ 2,411,861	$ 2,272,455	$ 2,070,390
Other Noncurrent Liabilities	49,872	44,861	41,938
Net OPEB Liability	157,204	145,279	137,036
Net Pension Obligation	333,064	440,944	430,540
Total Noncurrent Liabilities	$ 2,952,001	$ 2,903,539	$ 2,679,904

The following details bonds payable as of June 30, 2021 and 2020:

Bonds Payable
(Thousands of Dollars)
June 30

	2021	2020
Long Term Bonds Outstanding	$ 2,279,749	$ 2,149,469
Current Portion	(89,042)	(87,860)
	2,190,707	2,061,609
Unamortized Bond Premium	221,154	210,846
Bonds Payable, Net of Current Portion	$ 2,411,861	$ 2,272,455

More detailed information concerning long-term debt activity and capital asset activity is disclosed in Note III. 6. and Note III. 5., respectively, of the financial statements.

Budgetary Highlights

Please see the supplementary Budgetary Comparison Schedule located in the Required Supplementary Information section.

Requests for Information

This financial report is designed to provide a general overview of the City of Philadelphia Water Department's finances for all interested parties. Questions concerning any of the information provided in this report, or requests for additional information, should be addressed to the Philadelphia Water Department, Finance Division, Attention Deputy Commissioner of Finance, 5th Floor, 1101 Market Street, Jefferson Center, Philadelphia, Pennsylvania 19107.

CITY OF PHILADELPHIA WATER DEPARTMENT
STATEMENTS OF FUND NET POSITION, JUNE 30, 2021 AND 2020
(Thousands of Dollars)

	2021	2020
ASSETS		
Current Assets:		
Cash on Deposit and on Hand	$ 30	$ 30
Equity in Treasurer's Account	170,589	132,453
Accounts Receivable	163,727	174,112
Allowance for Doubtful Accounts	(14,833)	(15,282)
Inventories	20,086	17,135
Other Assets	828	707
Total Current Assets	340,427	309,155
Noncurrent Assets:		
Restricted Assets:		
Equity in Treasurer's Account	572,247	613,872
Sinking Funds and Reserves	206,024	194,951
Receivables	643	2,151
Total Restricted Assets	778,914	810,974
Capital Assets:		
Land	5,969	5,969
Infrastructure	2,823,414	2,738,473
Construction in Progress	620,765	772,229
Buildings and Equipment	2,096,466	1,778,098
Less: Accumulated Depreciation	(2,629,579)	(2,511,493)
Total Capital Assets, Net	2,917,035	2,783,276
Total Noncurrent Assets	3,695,949	3,594,250
Total Assets	**4,036,376**	**3,903,405**
DEFERRED OUTFLOWS OF RESOURCES:		
Deferred Outflow - Net Pension Liability	4,974	26,036
Deferred Outflow - Net OPEB Liability	19,661	14,645
Deferred Outflow - Unamortized Loss - Refunded Debt	55,632	37,988
Total Deferred Outflows	**80,267**	**78,669**
LIABILITIES		
Current Liabilities:		
Vouchers Payable	8,569	6,061
Accounts Payable	11,335	16,865
Due to Other Funds	2,922	7,479
Salaries & Wages Payable	5,216	4,552
Construction Contracts Payable	57,224	54,820
Due to Other Components Units	2,882	5,838
Payable to Other Government Units	364	-
Accrued Expenses	21,495	36,551
Funds Held in Escrow	1,637	1,667
Unearned Revenue	13,528	11,853
Bonds Payable - Current	89,042	87,860
Other Current Liabilities	2,415	2,138
Total Current Liabilities	216,629	235,684
Net OPEB Liability	157,204	145,279
Net Pension Liability	333,064	440,944
Noncurrent Liabilities:		
Bonds Payable	2,190,707	2,061,609
Unamortized Premium/(Discount)	221,154	210,846
Other Noncurrent Liabilities	49,872	44,861
Total Noncurrent Liabilities	2,461,733	2,317,316
Total Liabilities	**3,168,630**	**3,139,223**
DEFERRED INFLOWS OF RESOURCES:		
Deferred Inflows - Net Pension Liability	57,591	633
Deferred Inflows - Net OPEB Liability	10,541	13,014
Deferred Inflows - Gain on Refunding	4,743	2,441
Total Deferred Inflows	**72,875**	**16,088**
NET POSITION		
Net Investment in Capital Assets	643,531	655,874
Restricted For:		
Capital Projects	196,410	193,970
Debt Service	206,170	195,498
Rate Stabilization	125,117	151,878
Unrestricted	(296,090)	(370,457)
Total Net Position	**$ 875,138**	**$ 826,763**

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

CITY OF PHILADELPHIA WATER DEPARTMENT
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
FOR FISCAL YEARS ENDED JUNE 30, 2021 AND 2020
(Thousands of Dollars)

	2021	2020
Operating Revenues:		
Charges for Goods and Services	$ 703,048	$ 719,662
Operating Grants	2,748	860
Miscellaneous Operating Revenues	12,776	12,796
Total Operating Revenues	718,572	733,318
Operating Expenses:		
Personal Services	151,540	152,939
Purchase of Services	95,875	125,163
Materials and Supplies	35,235	38,465
Employee Benefits	125,182	146,417
Indemnities and Taxes	3,233	3,189
Depreciation	134,748	125,834
Total Operating Expenses	545,813	592,007
Operating Income (Loss)	172,759	141,311
Non-Operating Revenues (Expenses):		
Federal, State, & Local Grants	-	550
Interest Income	1,095	23,167
Debt Service - Interest	(70,560)	(87,106)
Other Revenue (Expenses)	(20,071)	(32,237)
Total Non-Operating Revenue (Expenses)	(89,536)	(95,626)
Income (Loss) Before Contributions & Transfers	83,223	45,685
Transfers In/(Out)	(37,160)	(34,682)
Capital Contributions	8,236	304
Change in Net Position	54,299	11,307
Net Position - July 1	826,763	822,084
Reclassification of Expense	(5,924)	(6,628)
Net Position Adjusted - July 1	820,839	815,456
Net Position - June 30	**$ 875,138**	**$ 826,763**

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

CITY OF PHILADELPHIA WATER DEPARTMENT
STATEMENTS OF CASH FLOWS
FOR FISCAL YEARS ENDED JUNE 30, 2021 AND 2020
(Thousands of Dollars)

	2021	2020
Cash Flows from Operating Activities		
Receipts from Customers	$ 727,405	$ 730,217
Payments to Suppliers	(145,662)	(161,125)
Payments to Employees	(295,781)	(297,772)
Claims Paid	(3,233)	(3,189)
Net Cash Provided (Used)	**282,729**	**268,131**
Cash Flows from Non-Capital Financing Activities		
Operating Grants Received	2,748	1,410
Operating Subsidies and Transfers to Other Funds	(34,574)	(17,688)
Net Cash Provided (Used)	**(31,826)**	**(16,278)**
Cash Flows from Capital & Related Financing Activities		
Proceeds from Debt Issuance	200,000	300,004
Acquisition and Construction of Capital Assets	(269,988)	(274,033)
Interest Paid on Debt Instruments	(98,341)	(100,823)
Principal Paid on Debt Instruments	(87,837)	(105,372)
Other Receipts (Payments)	356	285
Net Cash Provided (Used)	**(255,810)**	**(179,939)**
Cash Flows from Investing Activities		
Interest and Dividends on Investments	1,420	16,613
Net Cash Provided (Used)	1,420	16,613
Net Increase (Decrease) in Cash & Cash Equivalents	(3,487)	88,527
Cash and Cash Equivalents, July 1	746,355	657,828
Cash and Cash Equivalents, June 30	**$ 742,866**	**$ 746,355**
Reconciliation of Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities:		
Operating Income (Loss)	$ 172,759	$ 141,311
Adjustments to Reconcile Operating Income to Net Cash Provided (Used) by Operating Activities:		
Depreciation Expense	134,748	125,834
Change in Assets and Liabilities:		
Receivables, Net	7,158	(4,214)
Inventories	(2,950)	(1,348)
Accounts and Other Payables	(10,525)	5,775
Accrued Expenses	(20,136)	(341)
Unearned Revenue	1,675	1,114
Net Cash Provided by operating activities	**$ 282,729**	**$ 268,131**

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

PHILADELPHIA WATER DEPARTMENT
NOTES TO THE FINANCIAL STATEMENTS
JUNE 30, 2021 AND 2020

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Philadelphia Water Department have been prepared in conformity with U.S. generally accepted accounting principles ("GAAP") as applied to governmental units. The Governmental Accounting Standards Board ("GASB") is the accepted standard setting body for establishing governmental accounting and financial reporting principles. The more significant of the Water Department's accounting policies are described below.

1. REPORTING ENTITY

The City of Philadelphia was founded in 1682 and was merged with the county in 1854. Since 1951, the City has been governed largely under the Philadelphia Home Rule Charter. However, in some matters, including the issuance of short-term and long-term debt, the City is governed by the laws of the Commonwealth of Pennsylvania.

The operations and activities of the Water Department are accounted for with a separate set of balancing accounts that comprise the assets, deferred outflows of resources, liabilities, deferred inflows of resources, net position, revenues, and expenses. The activity of the Water Department is grouped in the financial statements into the broad category referred to as an enterprise fund (the "Water Fund"). The Water Fund is comprised of the funds and accounts established by the City under its Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended (the "General Ordinance").

2. FINANCIAL STATEMENTS

The Water Fund's financial statements (i.e., the Statement of Fund Net Position, Statement of Revenues, Expenses and Changes in Net Position, and Statement of Cash Flows) report information of all activities related to the operation of the City's water delivery and sewage systems.

The Statement of Revenues, Expenses and Changes in Net Position demonstrates the degree to which direct operating expenses are offset by operating revenues.

3. BASIS OF ACCOUNTING, MEASUREMENT FOCUS AND FINANCIAL STATEMENTS

The Water Fund, reported by the City as a major proprietary fund, accounts for the activities related to the operation of the City's water delivery and sewage systems. The Water Fund's financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred regardless of the timing of related cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements imposed by the provider have been met. Operating revenues and expenses are distinguished from nonoperating items in the Statement of Revenues, Expenses and Changes in Net Position. Operating revenues and expenses generally

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3. BASIS OF ACCOUNTING, MEASUREMENT FOCUS AND FINANCIAL STATEMENTS (continued)

result from providing services and producing and delivering goods in connection with a proprietary fund's ongoing operations. The principal operating revenues of the Water Fund are charges for water and sewer service. When calculating user fees charged to customers, the Water Department includes a component for the repayment of principal on the Water Department's outstanding debt.

The Water Fund distinguishes operating revenues and expenses from nonoperating items. Operating expenses include cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources as they are needed.

The Water Fund's activities are used to account for operations (1) that are financed and operated in a manner similar to private business enterprises – where the intent of the government body is that costs (expenses, including depreciation) of providing goods and services to the general public on a continuous basis be recovered primarily through user charges or (2) where the government body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management's control of accountability, and other purposes.

The activities of the Water Fund are segregated as follows:

- The Revenue Fund is used to account for the operations of the water and wastewater systems.

- The Revenue Bond Sinking Fund is used to account for the payment of interest of the outstanding revenue bonds.

- The Debt Reserve Fund account of the Sinking Fund is 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 with 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

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3. BASIS OF ACCOUNTING, MEASUREMENT FOCUS AND FINANCIAL STATEMENTS (continued)

Bonds. The moneys and investments in the Debt Reserve Account are held and maintained in an amount equal at all times to the Debt Reserve Requirement. If at any time the moneys in the Debt Reserve 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 obligations arising in connection with Qualified 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 into the Debt Service Account. With respect to any issue of Water and Wastewater Revenue Bonds, 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 relating to such issue.

The Debt Reserve Account Amendment authorizes (i) the Director of Finance to apply moneys currently on deposit in the Debt Reserve Account to purchase a surety bond or insurance policy complying with the terms of the General Ordinance (described below), (ii) the transfer of the resulting excess moneys in the Debt Reserve Fund to the Revenue Fund and from there, upon compliance with the provisions of the General Ordinance to a new account in the Residual Fund called the Special Water Infrastructure Account and (iii) the application of the moneys deposited in the Special Water Infrastructure Account to the cost of certain renewals, replacements and improvements to the water and wastewater systems described in the Debt Reserve Account Amendment.

- The Rate Stabilization Fund was created with the sale of the Series 1993 Revenue Bonds on August 20, 1993. The purpose of the Fund is to maintain assets to be drawn down to offset future deficits (and corresponding rate increase requirements) in the Water Fund.

  During Fiscal 2021, the Fund had the following activity:

Balance at July 1, 2020	$ 151,877,669
Transfer to Revenue Fund	(27,000,260)
Interest Earnings	239,133
Balance at June 30, 2021	$ 125,116,542

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3. BASIS OF ACCOUNTING, MEASUREMENT FOCUS AND FINANCIAL STATEMENTS (continued)

During Fiscal 2020, the Fund had the following activity:

Balance at July 1, 2019	$	180,449,365
Transfer to Revenue Fund		(33,083,049)
Interest Earnings		4,511,353
Balance at June 30, 2020	$	151,877,669

- The Residual Fund was created with the sale of the Series 1993 Revenue Bonds on August 20, 1993. The Residual Fund is the last Fund into which Project Revenues are transferred from the Revenue Fund. Money in the Residual Fund may be used to pay Operating Expenses or debt service, or other purpose to support the System. In addition, money in the Residual Fund is used to transfer the annual payment to the City's General Fund an amount equal to the lesser of (i) the interest earnings for the Fiscal Year on the Debt Reserve Account and Subordinated Bond Fund (less amounts subject to rebate) and (ii) $4.994 million.

During Fiscal 2021, the Fund had the following activity:

Balance at July 1, 2020	$	16,298,350
Transfer from Debt Service Reserve		2,586,100
Transfer to General Fund		(2,586,100)
Transfer from General Fund		22,210,000
Transfer to Capital Fund		(22,210,000)
Investment Earnings		22,313
Balance at June 30, 2021	$	16,320,663

During Fiscal 2020, the Fund had the following activity:

Balance at July 1, 2019	$	15,881,248
Transfer from Debt Service Reserve		4,994,000
Transfer to General Fund		(4,994,000)
Investment Earnings		417,102
Balance at June 30, 2020	$	16,298,350

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

4. DEPOSITS AND INVESTMENTS

The Water Fund's deposits and investments are held in segregated operating and capital accounts due to either legal requirements or operational needs. Sinking funds and reserves are maintained in segregated investment accounts to comply with reserve and other requirements of the bond covenants.

All highly liquid investments (except for Repurchase Agreements) with a maturity of three months or less when purchased are considered to be cash equivalents.

The Water Fund reports investments at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on national or international exchanges are valued at the last reported sales price. The fair value of real estate investments is based on independent appraisals. Investments which do not have an established market are reported at estimated fair value.

Statutes authorize the City to invest in obligations of the Treasury, agencies, and instruments of the United States, repurchase agreements, collateralized certificates of deposit, bank acceptance or mortgage obligations, certain corporate bonds, and money market funds. The Pension Trust Fund is also authorized to invest in corporate bonds rated AA or better by Moody's Bond Ratings, common stocks, and real estate.

5. INVENTORIES

The materials and supplies inventories are valued at moving average cost.

6. CAPITAL ASSETS

Capital assets, which include property, plant, equipment, and infrastructure assets, are defined by the City as assets with an initial individual cost of more than $5,000 and an estimated useful life in excess of three years. Capital assets are recorded at cost. The City typically does not include interest incurred as a result of financing asset acquisition or construction. Assets acquired by gift or bequest are recorded at their acquisition price at the date of the gift. Upon sale or retirement, the cost of the assets and the related accumulated depreciation, if any, are removed from the accounts. Maintenance and repair costs are charged to operations.

The Water Fund uses "substantially complete" as the determining basis for transferring Construction in Process to one or more of the major asset classes.

The Water Fund cost of construction includes all direct contract costs plus overhead costs. Overhead costs include direct and indirect engineering costs and interest incurred during the construction period for projects financed with bond proceeds. Interest is capitalized on proprietary fund assets acquired with tax-exempt debt. The amount of interest to be capitalized is calculated by offsetting interest expense incurred from the

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

6. CAPITAL ASSETS (continued)

date of the borrowing until completion of the project with interest on invested proceeds over the same period. Capitalization of interest during construction for Fiscal Year 2021 was $8.3 million and for Fiscal Year 2020 was $6.7 million.

Depreciation on the capital assets is provided on the straight-line method over their estimated useful lives: buildings - 20 to 40 years; equipment and storage facilities - 3 to 25 years; and transmission and distribution lines - 50 years.

7. BONDS AND RELATED PREMIUMS, DISCOUNTS, AND ISSUANCE COSTS

Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable bond premium or discount. In FY13, GASB Statement No. 65 was implemented resulting in bond issuance costs being recognized as an expense and reported in the period incurred.

8. INSURANCE

The City, except for the Airport and certain other properties, is self-insured for most fire and casualty losses to its structures and equipment and provides statutory workers' compensation and unemployment benefits to its employees. The City is self-insured for medical benefits provided to employees in the City administered health plan.

9. RECEIVABLES AND PAYABLES

Activities between funds that are representative of lending/borrowing arrangements outstanding at the end of the fiscal year are referred to as due to/from other funds.

Accounts receivable included in current assets consists of billed and unbilled fees, which have been earned but not collected as of June 30, 2021 and 2020. Credit balance receivables have been included in unearned revenue in the Statement of Fund Net Position. The allowance for doubtful accounts is management's estimate of the amount of accounts receivable which will be deemed to be uncollectible and is based upon specific identification. Unpaid accounts are referred to the City's Law Department if deemed uncollectible. Accounts are written off when recommended by the Law Department.

As of June 30, 2021 and 2020, the allowance for doubtful accounts was $14,832,810 and $15,281,690, respectively.

10. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES AND NET POSITION

In accordance with GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, the Water Fund reports

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

10. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES AND NET POSITION (continued)

deferred outflows of resources in the Statement of Fund Net Position in a separate section following Assets. Similarly, the Water Fund reports deferred inflows of resources in the Statement of Net Position in a separate section following Liabilities.

Deferred outflows of resources represents consumption of net position that applies to a future period(s) and will not be recognized as an expense until that time. Deferred inflows of resources represents an acquisition of net position that applies to future periods and will not be recognized as revenue until that time.

On the full accrual basis of accounting, the components of the deferred outflows of resources and deferred inflows of resources are as follows:

- Deferred refunding results from the difference in the refunding of debt and its reacquisition price.
- Deferred pension and OPEB transactions are recognized as expenses or revenues in a future period. Deferred outflows and inflows of resources related to pensions are discussed in Note IV. 1. and OPEB is discussed in Note IV.3.

The following items have been reported as deferred outflows or deferred inflows of resources on the Water Fund's Statement of Fund Net Position as of June 30, 2021 and 2020:

	(Thousands of Dollars)	
	2021	2020
Deferred Outflows of Resources		
Deferred Loss on Refunding	$ 55,632	$ 37,988
Related to Net Pension Liability	4,974	26,036
Related to Net OPEB Liability	19,661	14,645
	$ 80,267	$ 78,669
Deferred Inflows of Resources		
Related to Net Pension Liability	$ 57,591	$ 633
Related to Net OPEB Liability	10,541	13,014
Related to Gain on Refunding	4,743	2,441
	$ 72,875	$ 16,088

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

11. COMPENSATED ABSENCES

It is the City's policy to allow employees to accumulate earned but unused vacation and sick leave benefits. Vacation is accrued when earned in the financial statements. Sick leave is accrued in the financial statements based on an estimate of future payouts. The Water Fund's employees' total vacation time accrued under Other Current Liabilities in Fiscal Years 2021 and 2020 was $1.7 million and $1.5 million, respectively. The long-term portion reported in Other Noncurrent Liabilities on the Statement of Fund Net Position was $15.2 and $13.2 million for fiscal years 2021 and 2020, respectively.

The Water Fund's employees' total sick leave time accrued under Other Current Liabilities in Fiscal Years 2021 and 2020 was $726,000 and $675,000, respectively. The long-term portion reported in Other Noncurrent Liabilities on the Statement of Fund Net Position was $6.5 million and $6.1 million for fiscal years 2021 and 2020.

12. CLAIMS AND JUDGMENTS

Pending claims and judgments are recorded as expenses in the financial statements when the City solicitor has deemed that a probable loss to the Water Fund has occurred.

13. UNEARNED REVENUE

GASB Statement No. 65 prohibits the usage of the term "deferred" on any line items other than deferred inflows or outflows of resources. Therefore, the term "Deferred Revenue" has been replaced by "Unearned Revenue". Unearned revenues in the Water Fund's financial statements represents revenue received in advance of being earned. Unearned revenues relate principally to overpaid water and sewer bills.

14. NEW ACCOUNTING PRONOUNCEMENTS

NEW ACCOUNTING PRONOUNCEMENTS – ADOPTED:

In January 2017, **GASB issued Statement No. 84**, **Fiduciary Activities**. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The adoption of this Statement had no effect on the Water Fund's financial statements.

In August 2018, **GASB issued Statement No. 90, Majority Equity Interests—An Amendment of GASB Statements No. 14 and No. 61).** The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. The adoption of this Statement had no effect on the Water Fund's financial statements.

I. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)</u>

14. <u>NEW ACCOUNTING PRONOUNCEMENTS (continued)</u>

In March 2020, **GASB issued Statement No. 97, <u>Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans-an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32</u>**. The primary objectives of this Statement are to (1) increase consistency and comparability related to the reporting of fiduciary component units in circumstances in which a potential component unit does not have a governing board and the primary government performs the duties that a governing board typically would perform; (2) mitigate costs associated with the reporting of certain defined contribution pension plans, defined contribution other postemployment benefit (OPEB) plans, and employee benefit plans other than pension plans or OPEB plans (other employee benefit plans) as fiduciary component units in fiduciary fund financial statements; and (3) enhance the relevance, consistency, and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan and for benefits provided through those plans. This Statement also requires that the financial burden criterion in paragraph 7 of Statement No. 84, Fiduciary Activities, be applicable to only defined benefit pension plans and defined benefit OPEB plans that are administered through trusts that meet the criteria in paragraph 3 of Statement No. 67, Financial Reporting for Pension Plans, or paragraph 3 of Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, respectively. The requirements of this Statement that (1) exempt primary governments that perform the duties that a governing board typically performs from treating the absence of a governing board the same as the appointment of a voting majority of a governing board in determining whether they are financially accountable for defined contribution pension plans, defined contribution OPEB plans, or other employee benefit plans and (2) limit the applicability of the financial burden criterion in paragraph 7 of Statement 84 to defined benefit pension plans and defined benefit OPEB plans that are administered through trusts that meet the criteria in paragraph 3 of Statement 67 or paragraph 3 of Statement 74, respectively, are effective immediately. The adoption of this Statement had no effect on the Water Fund's financial statements.

In October 2021, **GASB issued Statement No. 98, <u>The Annual Comprehensive Financial Report.</u>** This Statement establishes the term annual comprehensive financial report and its acronym ACFR. That new term and acronym replace instances of comprehensive annual financial report and its acronym in U.S. generally accepted accounting principles for state and local governments. The Water Fund has adopted this Statement.

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

14. NEW ACCOUNTING PRONOUNCEMENTS (continued)

NEW ACCOUNTING PRONOUNCEMENTS - TO BE ADOPTED:

In June 2017, **GASB issued Statement No. 87**, **Leases**. This Statement establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. Per GASB Statement No. 95; implementation of GASB Statement No. 87 has been postponed by 18 months, making the effective date for reporting periods beginning after June 15, 2021. The Water Fund has not completed the process of evaluating the impact of adopting this Statement.

In June 2018, **GASB issued Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period.** The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and to simplify accounting for interest cost incurred before the end of a construction period. The Water Fund has not completed the process of evaluating the impact of adopting this Statement.

In May 2019, **GASB issued Statement No. 91, Conduit Debt Obligations.** The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures.

In January 2020, **GASB issued Statement No. 92, Omnibus 2020.** The objective of this Statement is to enhance the comparability in accounting and financial reporting and improve the consistency of authoritative literature by focusing on practice issues that have been identified during the implementation of various GASB Statements.

In March 2020, **GASB issued Statement No. 93, Replacement of Interbank Offered Rates.** This Statement establishes accounting and financial reporting requirements related to the replacement of Interbank Offered Rates in hedging derivative instruments and leases. It also identifies appropriate benchmark interest rates for hedging derivative instruments.

In March 2020, **GASB issued Statement No. 94, Public-Private and Public-Public Partnerships and Availability Payment Arrangements**. The primary objective of this Statement is to improve financial reporting by addressing issues related to public-private and public-public partnership arrangements (PPPs). A PPP is an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial assets, such as infrastructure or other capital asset, for a period of time in an exchange or exchange-like transaction. This Statement also

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

14. NEW ACCOUNTING PRONOUNCEMENTS (continued)

provides guidance for accounting and financial and reporting for availability payment arrangements (APAs). As defined in this Statement, an APA is an arrangement in which a government compensates an operator for services that may include designing, constructing, financing, maintaining, or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction.

In May 2020, **GASB issued Statement No. 96, Subscription-Based Information Technology Arrangements.** This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset – an intangible asset – and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. To the extent relevant, the standards for SBITAs are based on the standards established in Statement No. 87, Leases, as amended. A SBITA is defined as a contract that conveys control of the right to use another party's information technology (IT) software, alone or in combination with tangible capital assets, as specified in the contract for a period of time in an exchange or exchange-like transaction.

In June 2020, **GASB issued Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans – an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32.** The primary objectives of this Statement are to (1) increase consistency and comparability related to the reporting of fiduciary component units in circumstances in which a potential component unit does not have a governing board and the primary government performs the duties that a governing board typically would perform; (2) mitigate costs associated with the reporting of certain defined contribution pension plans, defined contribution other postemployment benefit (OPEB) plans, and employee benefit plans other than pension plans or OPEB plans (other employee benefit plans) as fiduciary component units in fiduciary fund financial statements; and (3) enhance the relevance, consistency, and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan and for benefits provided through those plans. The adoption of this statement had no effect on previously reported amounts.

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

14. NEW ACCOUNTING PRONOUNCEMENTS (continued)

The new standards must be adopted as follows:

GASB Statement No. 87 – Effective July 1, 2021 for financial statements for fiscal year ending June 30, 2022.
GASB Statement No. 89 – Effective July 21, 2021 for financial statements for fiscal year ending June 30, 2022.
GASB Statement No. 91 – Effective July 1, 2022 for financial statements for fiscal year ending June 30, 2023.
GASB Statement No. 92 – Effective July 1, 2021 for financial statements for fiscal year ending June 30, 2022.
GASB Statement No. 93 – Effective July 1, 2021 for financial statements for fiscal year ending June 30, 2022.
GASB Statement No. 94 – Effective July 2, 2022 for financial statements for fiscal year ending June 30, 2023.
GASB Statement No. 96 – Effective July 1, 2022 for financial statements for fiscal year ending June 30, 2023.
GASB Statement No. 97 – Effective July 1, 2021 for financial statements for fiscal year ending June 30, 2022.

The effect of these Statements has not yet been determined.

15. RESTRICTED ASSETS

Restricted assets represent revenues set aside for liquidation of specific obligations as described in Note IV. 11.

16. RECLASSIFICATIONS

Certain items from 2020 have been reclassified to conform to the 2021 presentation.

17. PAYMENT TO THE CITY

In accordance with an agreement between the Finance Director and the Water Department, the Finance Director may transfer to the City's General Fund up to a limit of $4,994,000 in any fiscal year in "excess interest earnings" as defined under the General Ordinance. In Fiscal Years 2021 and 2020, excess interest earnings of $2,586,100 and $4,994,000, respectively, were transferred from the Residual Fund to the General Fund of the City.

18. TRANSFERS FOR LONG TERM CONTRACTS

In addition to the transfer of funds to the General Fund of the City, the Water Fund had operating expenses of $32,168,735 and $26,615,141 and capital expenses of $2,405,609 and $3,073,057 in Fiscal Years 2021 and 2020, respectively, payable to the Philadelphia Municipal Authority ("PMA") under the long-term contracts described in Note IV. 10. A, B, C and D.

I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

19. ACCOUNTING ESTIMATES

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position and disclosures at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

The City's budgetary process accounts for certain transactions on a basis other than U.S. generally accepted accounting principles (GAAP). In accordance with the Philadelphia Home Rule Charter, the City has formally established budgetary accounting control for its operating and capital improvement funds.

II. LEGAL COMPLIANCE

1. BUDGETARY INFORMATION

One of the City's operating funds is the Water Fund which is subject to an annual operating budget adopted by the City Council. Included in the Water Fund is the Water Residual Fund. These budgets appropriate funds for all City departments, boards, and commissions by major class of expenditure within each department. Major classes are defined as: personal services; purchase of services; materials and supplies; equipment; contributions, indemnities, and taxes; debt service; payments to other funds; and advances and other miscellaneous payments. The appropriation amounts for each fund are supported by revenue estimates and take into account the elimination of accumulated deficits and the re-appropriation of accumulated surpluses to the extent necessary. All transfers between major classes (except for materials and supplies and equipment, which are appropriated together) must have council approval. Appropriations that are not expended or encumbered at year end are lapsed. Comparisons of budget to actual activity at the legal level of compliance are located in the Water Fund's *Budgetary Comparison Schedule (Legally Enacted Basis) – Water Operating Fund*, in the Required Supplementary Information section.

During the year, classification adjustments and supplementary appropriations were necessary for City funds. Therefore, budgeted appropriation amounts presented are as originally passed and as amended by the City Council. As part of the amendment process, budget estimates of City related revenues are adjusted and submitted to City Council for review. Changes in revenue estimates are submitted in support of testimony with regard to the appropriation adjustments and do not need City Council approval. Revenue estimates are presented as originally passed and as amended.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS

1. DEPOSITS AND INVESTMENTS

Deposits

State statutes require banks to collateralize City deposits at amounts equal to or in excess of the City's balance. Such collateral is to be held by the Federal Reserve Bank or the trust department of a commercial bank other than the pledging bank. At year end, the Water Fund's total bank balances were $355.8 million and $177.8 million for 2021 and 2020, respectively.

Investments

The City has established a comprehensive investment policy that covers the Water Fund. All City investments must be in compliance with applicable provisions of the City Code and City bond resolutions, as well as the City's Investment Policy. The City's Investment Policy is meant to supplement the applicable provisions of the City Code and City bond resolutions and is reviewed and adopted by the City's Investment Committee. The City's Investment Committee consists of the Director of Finance, the City Treasurer, and a representative from the Water Department, Aviation Division, and the Philadelphia Gas Works.

As of June 30, 2021, the fair values of the Water Fund's investments consist of the following:

	(Thousands of Dollars)		
Classifications		**Fair Value**	**Percent of Total**
U.S. Government Securities	$	168,738	32.94%
U.S. Government Agency Securities		259,184	50.60%
Corporate Bonds		32,502	6.35%
Other Bonds and Investments		51,820	10.12%
	$	512,244	100.00%

As of June 30, 2020, the fair values of the Water Fund's investments consist of the following:

	(Thousands of Dollars)		
Classifications		**Fair Value**	**Percent of Total**
U.S. Government Securities	$	281,628	39.68%
U.S. Government Agency Securities		293,835	41.40%
Corporate Bonds		64,665	9.11%
Other Bonds and Investments		69,555	9.80%
	$	709,683	100.00%

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

1. DEPOSITS AND INVESTMENTS (continued)

Water Fund Investments - Credit Risk

The City's policy to limit credit risks is to limit the types of allowable investment, as well as the maximum percent of the portfolio for each type of investment.

The Water Fund's investment in U.S. Government Securities (32.9%) or U.S. Government Agency obligations (50.6%) are allowable investments up to 100% of the portfolio. The U.S. Government Agency obligations must be rated AAA by Standard & Poor's Corp. (S&P) or Aaa by Moody's Investor Services. All U.S. Government Securities meet the criteria.

The Water Fund's investment in corporate bonds (6.4%) is limited to 25% of the portfolio, and had a S&P rating of AAA to AA or Moody's rating of Aa2 or better. All corporate investments meet the criteria.

Short Term Investment Pools are rated AAA by S&P and Aaa by Moody's Investor Services. The Short Term Investment Pools' amortized cost-based net asset value per share/unit is the same as the value of the pool shares. Cash accounts are swept nightly and idle cash invested in money market funds (short term investment pools).

The City limits its foreign currency risk by investing in certificates of deposit and banker's acceptances issued or endorsed by non-domestic banks that are denominated in U.S. dollars providing that the banking institution has assets of not less than $100 million and has a Thompson's Bank Watch Service "Peer Group Rating" not lower than II. At the end of the fiscal year, the City did not have any investments of that nature.

To minimize custodial credit risk, the City's policy is to select custodian banks that are members of the Federal Reserve System to hold its investments. Delivery of the applicable investment documents to the City's custodian is required for all investments.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)
1. DEPOSITS AND INVESTMENTS (continued)

As of June 30, 2021, the fixed income investments of the Water Fund had the following ratings by Moody's or S&P:

Classifications	Credit Quality Rating	Percent of Investment Type
U.S. Government Securities	Aaa	100%
U.S. Government Agency Securities	Aaa	100%
Corporate Bonds	Aaa	31%
Corporate Bonds	Aa3	9%
Corporate Bonds	Aa2	35%
Corporate Bonds	Aa1	25%
Other Bonds and Investments	Aaa	67%
Other Bonds and Investments	Aa2	33%

As of June 30, 2020, the fixed income investments of the Water Fund had the following ratings by Moody's or S&P:

Classifications	Credit Quality Rating	Percent of Investment Type
U.S. Government Securities	Aaa	100%
U.S. Government Agency Securities	Aaa	79%
U.S. Government Agency Securities	N/A	21%
Corporate Bonds	Aaa	17%
Corporate Bonds	Aa1	41%
Corporate Bonds	Aa2	25%
Corporate Bonds	Aa3	8%
Corporate Bonds	N/A	9%
Other Bonds and Investments	Aa1	13%
Other Bonds and Investments	Aa2	51%
Other Bonds and Investments	Aaa	36%

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

1. DEPOSITS AND INVESTMENTS (continued)

Interest Rate Risk

The City's investment portfolio is managed to accomplish preservation of principal, maintenance of liquidity, and maximize the return on investments. To limit its exposure to fair value losses from rising interest rates, the City's investment policy limits fixed income investments to maturities of no longer than two years, except in Sinking Fund Reserve portfolios.

As of June 30, 2021, the maturities of the Water Fund's fixed income investments were as follows:

	(Thousands of Dollars) Less Than 1 Year	Between 1-2 Years
U.S. Government Securities	$ 87,148	$ 81,590
U.S. Government Agency Securities	217,572	41,612
Corporate Bonds	26,675	5,827
Other Bonds and Investments	36,877	14,943
Total	$ 368,272	$ 143,972

As of June 30, 2020, the maturities of the Water Fund's investments were as follows:

	(Thousands of Dollars) Less Than 1 Year	Between 1-2 Years
U.S. Government Securities	$ 242,934	$ 38,694
U.S. Government Agency Securities	192,495	101,340
Corporate Bonds	53,576	11,089
Other Bonds and Investments	55,127	14,428
Total	$ 544,132	$ 165,551

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

1. DEPOSITS AND INVESTMENTS (continued)

Fair Value Measurement

The City measures and records its investments using fair value measurement guidelines established by U.S. generally accepted accounting principles. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability.
- Level 3: Unobservable inputs for assets or liabilities.

The Water Fund has the following recurring fair value measurements as of June 30, 2021:

- U.S. Government Securities of $168.7 million are valued using quoted prices for identical securities traded in active markets (Level 1).
- U.S. Agency Securities of $259.2 million are valued using quoted prices from identical securities that are traded in active markets when sufficient activity exists (Level 2).
- Corporate Bonds of $32.5 million and other bonds and investments of $51.8 million are valued using quoted prices for similar securities in active markets and via matrix pricing models (Level 2).

Municipal Pension Fund

See Footnote IV. 1. E. PENSION PLANS Cash Deposits, Investments and Securities Lending

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

2. SECURITIES LENDING

A. GOVERNMENTAL FUNDS

The City Treasurer is prohibited from lending or selling City-owned securities with an agreement to buy them back after a stated period of time (City of Philadelphia – Investment Policy Section VI. Investment Restrictions).

B. PENSION TRUST FUNDS

The Board of Directors of the Municipal Pension Fund has authorized management of the Fund to participate in securities lending transactions.

See Footnote IV. 1. E. PENSION PLANS Cash Deposits, Investments and Securities Lending.

3. AMOUNTS HELD BY FISCAL AGENT

Under Section 4.02 of the General Bond Ordinance, which authorizes the issuance of Water and Wastewater Revenue Bonds, the City pledges and assigns to the Fiscal Agent, for the security and payment of all Water and Wastewater Revenue Bonds issued under the General Ordinance, a lien on and security interest in all Project Revenues and amounts on deposit in or standing to the credit of the: 1) Revenue Fund; 2) Sinking Fund et.al.; 3) Subordinated Bond Fund; 4) Rate Stabilization Fund; 5) Residual Fund; and 6) Construction Fund and all of the accounts established therein. The Fiscal Agent shall hold and apply the security interest so granted in trust for the holders of Water and Wastewater Revenue Bonds, excluding Subordinate Bonds, without preference, priority, or distinction; provided however, that the pledge of General Bond Ordinance may also be for the benefit of a credit facility and qualified swap, or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price and interest on any series of Water and Wastewater Revenue Bonds (other than subordinated bonds), on an equal and ratable basis with Water and Wastewater Revenue Bonds, to the extent provided by any Supplemental Ordinance or Determination. The purpose for the debt secured by the pledge can be found in Note III. 6. to the financial statements.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

3. AMOUNTS HELD BY FISCAL AGENT (continued)

The following chart displays information related to the pledge as of June 30, 2021:

	Water and Wastewater Revenue Bonds
Pledged Revenue Required for Principal and Interest Payments	$3,873.0 million
Term of Pledge	2055
Percentage of Revenue Pledged	100%
Current Year Pledged Revenue	$730 million
Current Year Principal and Interest Paid	$192.6 million
Current Year Transfers to Escrow	$0

The following chart displays information related to the pledge as of June 30, 2020:

	Water and Wastewater Revenue Bonds
Pledged Revenue Required for Principal and Interest Payments	$3,844.0 million
Term of Pledge	2055
Percentage of Revenue Pledged	100%
Current Year Pledged Revenue	$746 million
Current Year Principal and Interest Paid	$187.9 million
Current Year Transfers to Escrow	$0

4. INTERFUND RECEIVABLES AND PAYABLES

Interfund receivable and payable balances among Water and City Funds at year-end are the result of the time lag between the dates that interfund goods and services are provided, the date the transactions are recorded in the accounting system and the date payments between funds are made. All balances are expected to be settled during the subsequent year.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

4. INTERFUND RECEIVABLES AND PAYABLES (continued)

Interfund receivable and payable balances at June 30, 2021 are as follows:

(Amounts in Thousands of USD)

		Interfund Receivables due to:			
		Nonmajor Governmental			
	General	Special Revenue	Pension Fund	Other Funds	Total
Interfund Payables Due From:					
General	$ -	$ 873	$ 55,204	$ 699	$ 56,776
Grants Revenue fund	-	74	-	-	74
Water and Sewer Fund	-	2,922	-	-	2,922
Nonmajor Special Revenue Funds	7,551	-	-	-	7,551
Total	$ 7,551	$ 3,869	$ 55,204	$ 699	$ 67,323

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

5. CAPITAL ASSET ACTIVITY

Capital asset activity for the years ended June 30, 2021 and 2020 was as follows:

(Amounts in thousands)

	Beginning Balance*	Additions	Dispositions	Ending Balance
Fiscal Year Ended June 30, 2021				
Capital Assets Not Being Depreciated				
Land	$ 5,969	$ -	$ -	$ 5,969
Construction in Progress	473,509	259,559	(112,303)	620,765
Total Capital Assets Not Being Depreciated	$ 479,478	$ 259,559	$ (112,303)	$ 626,734
Capital Assets Being Depreciated				
Buildings and related improvements	1,951,869	62,416	(34,123)	1,980,162
Intangible Assets	24,164	2,423	-	26,587
Equipment	113,297	14,358	(11,351)	116,304
Infrastructure	2,737,936	60,126	(1,235)	2,796,827
Total Capital Assets Being Depreciated	$ 4,827,266	$ 139,323	$ (46,709)	$ 4,919,880
Less Accumulated Depreciation For:				
Buildings and related improvements	(1,057,993)	(60,678)	25,571	(1,093,100)
Intangible Assets	(15,314)	(1,518)	-	(16,832)
Equipment	(80,155)	(12,360)	8,451	(84,064)
Infrastructure	(1,375,929)	(60,192)	538	(1,435,583)
Total Accumulated Depreciation	(2,529,391)	(134,748)	34,560	(2,629,579)
Total Capital Assets, Being Depreciated, Net	2,297,875	4,575	(12,149)	2,290,301
Total Capital Assets	$ 2,777,353	$ 264,134	$ (124,452)	$ 2,917,035

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

5. CAPITAL ASSET ACTIVITY (continued)

(Amounts in thousands)

	Beginning Balance	Additions	Dispositions	Ending Balance
Fiscal Year Ended June 30, 2020				
Capital Assets Not Being Depreciated				
Land	$ 5,919	$ 50	$ -	$ 5,969
Construction in Progress	666,130	263,873	(157,774)	772,229
Total Capital Assets Not Being Depreciated	$ 672,049	$ 263,923	$ (157,774)	$ 778,198
Capital Assets Being Depreciated				
Buildings and related improvements	1,631,789	88,700	(55,688)	1,664,801
Intangible Assets	21,770	2,394	-	24,164
Equipment	122,185	11,636	(20,524)	113,297
Infrastructure	2,655,635	59,164	(490)	2,714,309
Total Capital Assets Being Depreciated	$ 4,431,379	$ 161,894	$ (76,702)	$ 4,516,571
Less Accumulated Depreciation For:				
Buildings and related improvements	(1,028,347)	(53,519)	41,045	(1,040,821)
Intangible Assets	(13,942)	(1,372)	-	(15,314)
Equipment	(89,050)	(11,593)	20,488	(80,155)
Infrastructure	(1,316,789)	(59,351)	937	(1,375,203)
Total Accumulated Depreciation	(2,448,128)	(125,835)	62,470	(2,511,493)
Total Capital Assets, Being Depreciated, Net	1,983,251	36,059	(14,232)	2,005,078
Total Capital Assets	$ 2,655,300	$ 299,982	$ (172,006)	$ 2,783,276

*Fiscal year 2021 beginning balances have been restated; see Note III. 11. for additional information.

Impaired Assets

Government Accounting Standards Board (GASB) Statement 42 requires the disclosure of the impairment of any major capital assets. Over the years, there have been a number of the Water Fund's assets that were either damaged or destroyed, were abandoned, or became functionally obsolete.

No asset impairments occurred during fiscal years 2021 and 2020.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE

(1) Governmental Debt Payable

A summary of changes in long-term debt obligations as of June 30, 2021 follows:

(In Thousands)

	Beginning Balance	Additions	Reductions	Ending Balance	Amounts Due Within One Year
Water and Sewer Revenue Bonds	$ 2,149,469	$ 793,015	$ (662,735)	$ 2,279,749	$ 89,042
Unamortized Bond Premium	210,846	27,913	(17,604)	221,155	-
Net Pension Liability	440,944	-	(107,880)	333,064	-
Net OPEB Liability	145,279	11,925	-	157,204	-
Other Liabilities:					
Accrued Worker's Compensation	21,436	2,325	-	23,761	-
Accrued Legal Claims	4,180	195	-	4,375	-
Compensated Absences	21,384	4,906	(2,138)	24,152	2,415
Total	$ 2,993,538	$ 840,279	$ (790,357)	$ 3,043,460	$ 91,457

A summary of changes in long-term debt obligations as of June 30, 2020 follows:

(In Thousands)

	Beginning Balance	Additions*	Reductions	Ending Balance	Amounts Due Within One Year
Water and Sewer Revenue Bonds	$ 2,004,181	$ 250,660	$ (105,372)	$ 2,149,469	$ 87,860
Unamortized Bond Premium	171,581	55,174	(15,909)	210,846	-
Net Pension Liability	430,540	10,494	(90)	440,944	-
Net OPEB Liability	137,036	8,243	-	145,279	-
Other Liabilities:					
Accrued Worker's Compensation	23,524	-	(2,089)	21,435	-
Accrued Legal Claims	5,401	-	(1,221)	4,180	-
Compensated Absences	14,459	9,034	(2,109)	21,384	2,138
Total	$ 2,786,722	$ 333,605	$ (126,790)	$ 2,993,537	$ 89,998

* 2020 Additions amounts have been adjusted for a prior period adjustment; see Note III. 11. for additional information.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE (continued)

An analysis of debt service requirements to maturity on the long-term obligations follows:

(In Millions of USD)

Year Ending June 30:	Principal Requirements	Interest Requirements	Total Debt Service Requirements
2022	$ 89.0	$ 91.7	$ 180.7
2023	84.3	93.2	177.5
2024	67.0	89.5	156.5
2025	70.0	86.6	156.6
2026	74.1	83.4	157.5
2027 - 2031	344.3	374.8	719.1
2032 - 2036	318.1	307.2	625.3
2037 - 2041	378.9	235.5	614.4
2042 - 2046	412.7	152.4	565.1
2047 - 2051	275.1	77.8	352.9
2052 - 2055	166.2	13.9	180.1
	$ 2,279.7	$ 1,606.0	$ 3,885.7

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE (continued)

Pertinent information regarding long-term debt obligations outstanding is presented below:

Date of Issue	Amount of Original Issue	Purpose	Balance Outstanding at: June 30, 2021	Balance Outstanding at: June 30, 2020
1997	$78,500,000	Water and Wastewater Revenue Bonds, Variable Rate Series of 1997B, issued for various capital projects, to fund the Debt Reserve Account, and to pay the costs of issuance related to the Bonds issue at a variable rate.	$ -	$ 41,200,000
2009	31,216,779	Pennsylvania Infrastructure Investment Authority Loan of 2009 (B), issued for various capital projects at rates of 1.193% - 2.107%.	15,792,778	17,023,901
2009	49,157,776	Pennsylvania Infrastructure Investment Authority Loan of 2009 (C), issued for various capital projects at rates of 1.193% - 2.107%.	27,228,852	29,405,657
2009	75,744,096	Pennsylvania Infrastructure Investment Authority Loan of 2009 (D), issued for various capital projects at rates of 1.193% - 2.107%.	42,253,537	45,780,493
2010	28,500,000	Pennsylvania Infrastructure Investment Authority Loan of 2010 (B), issued for various capital projects at rates of 1.193% - 2.107%.	19,633,990	21,024,289
2010	185,000,000	Water and Wastewater Revenue Bonds, Series of 2010C, issued for funding a payment to terminate the Series of 2007 Swap Agreement, fund the required deposit into the Debt Reserve Account of the Sinking Fund, and to pay the costs of issuance related to the Bonds issue at rates of 3.000% - 5.000%.	-	4,275,000
2011	184,855,000	Water and Wastewater Revenue Bonds, Series of 2011A, and Water and Wastewater Revenue Refunding Bonds, Series of 2011B, issued for partially defeasing the Series of 2001A and Series of 2007A Bonds, for various capital projects, for funding of capitalized interest, for financing any required deposit into the Debt Reserve Account of the Sinking Fund, and to pay the cost of issuance related to the Bonds issue at rates of 4.000% - 5.000%.	9,045,000	147,600,000
2012	70,370,000	Water and Wastewater Revenue Refunding Bonds, Series of 2012, issued for defeasing the Series of 2001A and 2001B Bonds and to pay the cost of issuance related to the Bonds issue at rates of 1.000% -5.000%.	-	34,400,000
2013	170,000,000	Water and Wastewater Revenue Bonds, Series of 2013A, issued to finance capital improvements, finance a deposit to the Debt Reserve Account, and to pay the cost of issuance related to the Bonds issue at rates of 3.000% to 5.125%.	47,000,000	128,880,000
2014	123,170,000	Water and Wastewater Revenue Bonds, Series of 2014A, issued to advance refund a portion of the Series of 2005A Bonds, to finance capital improvements, finance a deposit to the Debt Reserve Account, and to pay the cost of issuance related to the bond issue at rates of 3.000% to 5.000%.	50,615,000	97,700,000
2015	417,560,000	Water and Wastewater Revenue Bonds, Series of 2015A and 2015B, issued to finance capital improvements, finance a deposit to the Debt Reserve Account, current refund a portion of the Series of 2005 A Bonds, advance refund a portion of the Series of 2007A Bonds, and pay the cost of issuance related to the Bonds issue at rates of 3.450% to 5.000%.	120,475,000	407,195,000
2016	192,680,000	Water and Wastewater Revenue Refunding Bonds, Series 2016 issued to finance (i) the advance refunding of portions of the City's outstanding (a) Water and Wastewater Revenue Refunding Bonds, Series 2007A, (b) Water and Wastewater Revenue Bonds, Series 2009A, and (c) Water and Wastewater Revenue Bonds, Series 2010C, and (ii) the costs of issuance relating to the Bonds. The Bonds bear rates of 3.00% to 5.00%.	174,010,000	177,985,000

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE (continued)

Date of Issue	Amount of Original Issue	Purpose	Balance Outstanding at: June 30, 2021	June 30, 2020
2017	$ 279,865,000	Water and Wastewater Revenue Bonds, Series 2017A issued to finance (i) capital improvements to the City's Water and Wastewater Systems, (ii) a deposit to the Debt Reserve Account of the Sinking Fund, and (iii) the costs of issuance relating to the Bonds. The Bonds bear interest rates of 5.00% to 5.25%.	$239,865,000	$239,865,000
2017	174,110,000	Water and Wastewater Revenue Refunding Bonds, Series 2017B issued to finance (i) the refunding of portions of the City's outstanding (a) Water and Wastewater Revenue Refunding Bonds, Series 2007b, (b) portions of Water and Wastewater Revenue Bonds, Series 2010c, and (c) portions of Water and Wastewater Revenue Bonds, Series 2012, and (ii) the costs of issuance relating to the Bonds. The Bonds bear rates of 2.000% to 5.000%.	165,225,000	171,205,000
2018	276,935,000	Water and Wastewater Revenue Bonds, Series 2018A issued to provide funds which, together with other available funds of the City, will be used to finance (i) capital improvements to the City's Water and Wastewater Systems and (ii) the costs of issuance relating to the Bonds. The Bonds bear an interest rate of 5.000%.	256,935,000	266,935,000
2019	68,335,000	Waste and Wastewater Revenue Refunding Bonds, Series 2019A issued to finance (i) the refunding of all or a portion of the City's outstanding Water and Wastewater Revenue Bonds, Series 2010C and portions of Water and Wastewater Revenue Refunding Bonds, Series 2011B and Series 2012 and (ii) for the costs of issuance relating to the bonds. The Bonds bear interest rates of 2.826% to 4.289%. The economic gain was $2.9 million.	67,995,000	68,335,000
2019	250,660,000	Water and Wastewater Revenue Bonds, Series 2019B issued to provide funds which, together with other available funds of the City, will be used to finance (i) capital improvements to the City's Water and Wastewater Systems, (ii) a deposit to the Debt Reserve Account of the Sinking Fund, and (iii) the costs of issuance relating to the Bonds. The Bonds bear an interest rate of 5.000%.	250,660,000	250,660,000
2020	127,740,000	Water and Wastewater Revenue Bonds, Series 2020 (Forward Delivery) issued for the purpose of providing funds that will be used to (i) refund all or a portion of the City's outstanding Water and Wastewater Revenue Bonds, Series 2011A, and (ii) pay or reimburse the City for issuance costs of the Bonds. The Bonds shall bear interest at rates ranging from 4.500% to 5.000% through January 1, 2041.	127,740,000	-
2020	201,530,000 Series A + 95,025,000 Series B	Water and Wastewater Revenue Refunding Bonds Tax-Exempt, Series 2020A and Water and Wastewater Revenue Refunding Bonds, Series 2020B (Federally Taxable) issued to finance (i) capital improvements to the City's Water and Wastewater Systems, including capitalized interest, (ii) the current refunding of the City's outstanding Water and Wastewater Revenue Bonds Variable Rate Series 1997B and Series 2010C, (iii) the advance refunding of all or a portion of the City's outstanding Water and Wastewater Revenue Refunding Bonds, Series 2011B, Series 2012, and Series 2013A, (iv) the cost of issuance relating to the Tax-Exempt Bonds, and (v) the cost of issuance related to the Taxable Bonds.	296,555,000	-
2021	80,821,155	Water and Wastewater Revenue Bonds, Series 2021A (PENNVEST Loan) issued to fund rehabilitation of the Torresdale Filtered Water Pump Station - the largest drinking water station in the City of Philadelphia. The bonds bear an interest rate of 1.000% for years 1 through 5, and 1.727% for years 6 through maturity.	-	
2021	368,720,000	Water and Wastewater Revenue Refunding Bonds (Federally Taxable), Series 2021B issued finance (i) the advance refunding of the City's outstanding Water and Wastewater Revenue Bonds, Series 2014A and 2015A, and (ii) the cost of issuance relating to the Bonds. The Bonds bear an interest rates of 5.000% through 2046.	368,720,000	-
		Totals	$ 2,279,749,157	$ 2,149,469,340

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE (continued)

(2) Pennvest Loans

In July 2010, the Water Department received approval from the Pennsylvania Infrastructure Investment Authority ("PENNVEST") for the Green Infrastructure Project (Series 2010B) bringing the total financing from PENNVEST to $214.9 million. The loan is in final amortization as such no further drawdowns will occur. During fiscal 2019, PENNVEST drawdowns totaled $1,500,000 which represented an increase in bond issuances. The funding is through low interest loans evidenced by and payables secured on a parity basis with water and wastewater revenue bonds which bear interest of 1.193% during the construction period and for the first five years of amortization (interest only payments are due during the construction period up to three years) and 2.107% for the remaining fifteen years.

Individual loan information, by series of bonds, as of June 30, 2021 is as follows:

Date	Series	Maximum Loan Amount	Amount Received through 6/30/21	Current Balance Outstanding 6/30/21
October 2009	2009B	$ 42,886,030	$ 31,216,779	$ 15,792,778
October 2009	2009C	57,268,193	49,157,776	27,228,852
March 2010	2009D	84,759,263	75,744,096	42,253,537
July 2020	2010B	30,000,000	30,000,000	19,633,990
	Totals	$214,913,486	$ 186,118,651	$ 104,909,157

Individual loan information, by series of bonds, as of June 30, 2020 is as follows:

Date	Series	Maximum Loan Amount	Amount Received through 6/30/20	Current Balance Outstanding 6/30/20
October 2009	2009B	$ 42,886,030	$ 31,216,779	$ 17,023,901
October 2009	2009C	57,268,193	49,157,776	29,405,657
March 2010	2009D	84,759,263	75,744,096	45,780,493
July 2020	2010B	30,000,000	30,000,000	21,024,289
	Totals	$214,913,486	$ 186,118,651	$ 113,234,340

IV. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

6. DEBT PAYABLE (continued)

(2) Pennvest Loans (continued)

The purposes of the loans are:

a. 2009B – Water Plant Improvements
b. 2009C – Water Main Replacements
c. 2009D – Sewer Projects
d. 2010B – Green Infrastructure Project

(3) Defeased Debt

As of the current fiscal year-end, the Water Fund defeased certain bonds by placing the proceeds of new bonds in irrevocable trusts to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the Water Fund's financial statements. As of June 30, 2021 and 2020, $441.1 and $162.1 million, respectively, of bonds outstanding are considered defeased.

(4) Arbitrage Liability

The City has Water and Wastewater Revenue Bonds subject to federal arbitrage requirements. Federal tax legislation requires that the accumulated net excess of interest income on the proceeds of these issues over interest expense paid on the bonds be paid to the federal government at the end of a five-year period. At June 30, 2021 the Water Fund had a $243 liability and 2020, there was no arbitrage liability.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

7. PENSION SERVICE AGREEMENT

In Fiscal 1999, the Philadelphia Authority for Industrial Development (PAID) issued $1.3 billion in Pension Funding Bonds. These bonds were issued pursuant to the provisions of the Pennsylvania Economic Development Financing Law and the Municipal Pension Plan Funding Standard and Recovery Act (Act 205). The bonds are special and limited obligations of PAID. The City entered into a Service Agreement with PAID agreeing to make yearly payments equal to the debt service on the bonds. PAID assigned its interest in the service agreement to the parties providing the financing and in accordance with GASB Interpretation #2, PAID treats this as conduit debt and does not include conduit debt transactions in its financial statements. The fiscal year 2021 Pension Funding Bonds liability of $631.3 million is reflected in the City's financial statements as another Long-Term Obligation.

8. LEASE COMMITMENTS AND LEASED ASSETS

The Water Fund enters into various operating leases to finance the purchase of photocopier and computer equipment. Leases are defined by the Financial Accounting Standard Board in Statement 13, *Accounting for Leases*. The assets acquired through the leases are shown as equipment within the Capital Asset Note (See Note III. 5.).

9. DEFERRED COMPENSATION PLAN

The City offers its employees a deferred compensation plan in accordance with Internal Revenue Code Section 457. As required by the Code and Pennsylvania laws in effect at June 30, 2014, the assets of the plan are held in trust for the exclusive benefit of the participants and their beneficiaries. In accordance with GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans,* the City does not include the assets or activity of the plan in its financial statements.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

10. NET POSITION POLICIES

GASB requires the classification of net position into three components – net investment in capital assets, restricted, and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings, net of unspent bond proceeds that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included.

Restricted – This component of net position consists of restricted assets and deferred outflows of resources reduced by liabilities and deferred inflows of resources related to those assets. The restrictions would be imposed by external parties including creditors, grantors, contributors, or laws or regulations of other governments and restrictions imposed by law through constitutional provisions or enabling legislation.

Unrestricted – This component of net position consists of the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

To the extent that both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources, as needed.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)

11. PRIOR PERIOD ADJUSTMENTS

For the year ended June 30, 2021, the Water Fund's beginning Net Position decreased by $5.9 million as a result of the following:

The net effect of $12 million for projects that were expensed in fiscal year 2020, but in fiscal year 2021 were deemed active capital projects; therefore, subsequently capitalized as a prior period adjustment.

The net effect of ($17.9 million) for adjustments to depreciation expense in order to capture depreciation in previous periods for assets substantially complete prior to fiscal year 2021.

The net effect of the adjustments is reflected as a decrease in the Water Fund's Net Position as of July 1, 2020 in the June 30, 2021 Statement of Revenue, Expenses and Changes in Net Position.

For the year ended June 30, 2020, the Water Fund's beginning Net Position decreased by $6.6 million as a result of recording a liability for the Fund's share of the City's June 30, 2019 accumulated unpaid sick leave in the amount of $6.6 million.

The effect of the adjustment is reflected as a decrease to the Water Fund's Net Position as of July 1, 2019 in the June 30, 2020 Statement of Revenues, Expenses and Changes in Net Position.

12. INTERFUND TRANSACTIONS

During the course of normal operations, the City has numerous transactions between funds. These transactions are recorded as operating transfers and are reported as transfers in the Water Fund. Some of the more significant transfers are: the PICA administrative fund collects a portion of the wage tax paid by City residents and transfer funds that are not needed for debt service and administrative costs to the general fund. Also, the general fund and the PICA administrative fund make transfers to the debt service funds for principal and interest payments.

III. DETAILED NOTES ON ALL FUNDS AND ACCOUNTS (continued)
12. INTERFUND TRANSACTIONS (continued)

Transfers between fund types during the fiscal year 2021 were:

(Amounts in Thousands of USD)

	Transfers To:				
	Governmental	Nonmajor Governmental			
Transfers From:	General	Special Revenue	Debt Service	Capital Improvement	Total
General Fund	$ -	$ 37,934	$ 175,998	$ 5,760	$ 219,692
Grants Revenue Fund	58,987	1,499	5,060	-	65,546
Nonmajor Special Revenue Funds	509,027	-	21,381	7,867	538,275
Permanent Funds	-	118	-	-	118
Capital Improvements	-	-	-	-	-
Water Fund	2,586	34,574	-	-	37,160
Total	$ 570,600	$ 74,125	$ 202,439	$ 13,627	$ 860,791

IV. OTHER INFORMATION
1. CITY PENSION PLANS
A. PENSION FUND DESCRIPTION

The City maintains two single employer defined benefit plans for its employees and several of its component units. The two plans maintained by the City are the City Plan and the Philadelphia Gas Works (the "PGW") Plan. In addition to the City, the three other quasi-governmental agencies that participate in the City Plan are the Philadelphia Parking Authority (the "PPA"), the Philadelphia Municipal Authority (the "PMA"), and the Philadelphia Housing Development Corporation (the "PHDC").

Effective with Fiscal Year 2015, the City implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27*. This statement revised existing standards for measuring and reporting pension liabilities for pension plans. GASB Statement No. 68 defines a single employer as the primary government and its component units. All three quasi-governmental agencies that participate in the City Plan were determined to be component units of the City. Therefore, the City Plan meets the definition of a single employer plan.

The note disclosures and Required Supplementary Information required by GASB Statement No. 68 are presented in separately issued audited financial statements of the City Plan and PGW plan. Copies of these financial statements may be obtained by contacting the Director of Finance of the City of Philadelphia. The Water Fund's portion of the Plan information is disclosed in the notes to the financial statements.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

A. PENSION FUND DESCRIPTION (continued)

Plan Administration. The Philadelphia Board of Pensions (the "Pension Board") administers the City of Philadelphia Municipal Pension Fund (the "Fund"), a single employer defined benefit pension plan with a small but increasing defined contribution component, which provides pensions for all officers and employees of the City, as well as those of three quasi-governmental agencies (per applicable enabling legislation and contractual agreements). The Board was established by section 2-308 of the 1952 Philadelphia Home Rule Charter. Its actions in administering the Retirement System are governed by Title 22 of the Philadelphia Code.

The Board consists of nine voting members – four elected by the active members within the civil service, and the City's Controller, Solicitor, Managing Director, Personnel Director, and Director of Finance, who serves as the Chair.

Plan Membership. At July 1, 2020, the date of the most recent actuarial valuation, pension plan membership consisted of the following:

Actives	28,892
Terminated Vested	929
Disabled	3,833
Retirees	22,249
Beneficiaries	8,471
DROP	1,642
Total City Members	66,016
Annual Salaries	$ 1,921,217,453
Average Salary per Active Member	$ 66,497
Annual Retirement Allowances	$ 789,023,043
Average Retirement Allowance	$ 22,835

Contributions

Per Title 22 of the Philadelphia Code, members contribute to the Fund at various rates based on bargaining unit, uniform/non-uniform/elected/exempt status, and entry date into the Fund. Beginning July 1, 2019, members contributed at one of the following rates:

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

A. PENSION FUND DESCRIPTION (continued)

Employee Contribution Rates

For the Period of July 1, 2020 to June 30, 2021

	Municipal (1)	Elected (2)	Police	Fire
Plan 67	7.00%	N/A	6.00%	6.00%
Plan 87	3.54%	10.98%	6.84%	6.84%
Plan 87 – 50% of Aggregate Normal Cost (3)	4.23%	N/A	N/A	N/A
Plan 87 – Accelerated Vesting (4)	4.23%	12.88%	N/A	N/A
Plan 87 Prime (5)	4.54%	11.98%	7.84%	7.84%
Plan ‘10	2.37%	N/A	7.34%	7.34%
Plan ’10 – Accelerated Vesting	2.77%	N/A	N/A	N/A
Plan ’16 (6)	4.17%	N/A	N/A	N/A
Plan ’16 – Accelerated Vesting (7)	4.60%	N/A	N/A	N/A

1- For the Municipal Plan 67 members who participate in the Social Security System, employee contributions are 4.75% of compensation up to the social security wage base and 7% above it.
2- The employee contribution rate is based upon the normal cost of $547,930 under Plan 87 Elected, normal cost or $308,63 under Plan 87 Municipal and current annual payroll of $3,325,892.
3- This represents 50% of Aggregate Normal Cost for all members in Plan Y and applies to Deputy Sheriffs hired between 1/1/2012 and 6/20/2018.
4- Member rate for Municipal Plan 87 (Y5) members eligible to vest in 5 years, and Elected Officials (L8) eligible to be vested in 8 years, instead of 10.
5- Plan 87 Prime refers to new hires who have the option to elect Plan 10 but have elected to stay in Plan 87. New hires after 7/1/2017 in Police and Fire Plan 87 Prime pay 8.50%and are not reflected above.
6- All Municipal groups (except elected officials) hired after January participate in Plan 16.
7- Member rate for Municipal Plan 16 members eligible to vest in 7 years instead of 10 years.

Employer contributions are made by the City throughout each fiscal year (which ends June 30) and by three (3) quasi-governmental agencies on a quarterly basis. These contributions, determined by an annual actuarial valuation report (“AVR”), when combined with plan member contributions, are expected to finance the cost of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

A. PENSION FUND DESCRIPTION (continued)

Within the AVR, three contribution amounts are determined based upon three different sets of rules for determining the way the unfunded actuarial liability is funded.

The first method is defined in accordance with Act 205 and defines the Minimum Municipal Obligation ("MMO"), which is the City's minimum required contribution under Pennsylvania state law.

The second method is in accordance with the City's Funding Policy, which predates the Act 205 rules and calls for contributions that are greater than the MMO until the initial unfunded liability determined in 1984 is fully funded.

The third method currently followed by the City, the Revenue Recognition Policy ("RRP"), calls for additional revenue to be contributed each year to the fund in excess of the MMO. There are three sources of additional revenue that will be received by the Fund: 1) a portion of the sales tax according to the State Legislation, 2) additional tiered member contributions based on salary level for all municipal employees, and 3) additional member contributions from the current and future uniform members in Plan 87.

Under all funding methods, there are two components: the normal cost and the amortized unfunded actuarial liability. The actuarial unfunded liability is the amount of the unfunded actuarial liability that is paid each year based upon the given or defined amortization periods. The amortization periods are the same under the MMO and RRP, but different under the City's Funding Policy.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

A. PENSION FUND DESCRIPTION (continued)

City's Funding Policy:

The initial July 1, 1985 unfunded actuarial liability ("UAL") was amortized over 34 years ended June 30, 2020, with payments increasing at 3.3% per year, the assumed payroll growth. Other changes in the actuarial liability are amortized in level-dollar payments as follows:

- Actuarial gains and losses – 20 years beginning July 1, 2009. Prior gains and losses were amortized over 15 years.
- Assumptions changes – 15 years beginning July 1, 2010. Prior to July 1, 2010, assumption changes were amortized over 20 years.
- Plan changes for active members – 10 years.
- Plan changes for inactive members – 1 year.
- Plan changes mandated by the State – 20 years.

In fiscal year 2021, the City and other employers' contributions of $788.5 million was less than the actuarially determined employer contribution (ADEC) of $856.5 million. In the event that the City contributes less than the funding policy, an experience loss will be created which will be amortized in accordance with funding policy over a closed 20-year period.

The Schedule of Employer Contributions (based on the City's Funding Policy) is included as Required Supplemental Information and provides a 10-year presentation of employer contributions.

Minimum Municipal Obligation (MMO):

For the purposes of the MMO under Act 205 reflecting the fresh start amortization schedule, the July 1, 2009 UAL was "fresh started" to be amortized over 30 years ending June 30, 2039. This is a level dollar amortization of the UAL.

In fiscal year 202l, the City and other employers' contributions of $788.5 million exceeded the Minimum Municipal Obligation of $673.9.

The Schedule of Employer Contributions (based on the MMO Funding Policy) is included as Required Supplemental Information and provides a 10-year presentation of the employer contributions.

IV. OTHER INFORMATION (continued)
1. CITY PENSION PLANS (continued)
A. PENSION FUND DESCRIPTION (continued)

Revenue Recognition Policy (RRP)

Revenue Recognition Policy is similar to the MMO except that the assets used to determine the unfunded liability do not include a portion of sales tax revenue, tiered member contributions from the municipal employees, and additional uniform members' contributions. These sources of income are contributed over and above the City's contribution of the MMO and will be in addition to the MMO. Therefore, under this funding method, the additional revenue amounts are separately tracked and accumulated in a notional account which is then subtracted from the assets before calculating the contribution amounts due under the Minimum Municipal Obligation (MMO) methodology. The Fund accumulates these amounts in a notional account and deducts them from the Actuarial Asset Value before the MMO is determined. These amounts are accumulated at the Actuarial Asset Value return rates to preserve the new funding methodology objective.

In fiscal year 2021 the City and other employers' contributions of $788.5 million exceeded the contribution under the Revenue Recognition Policy of $713.0 million.

The Schedule of Employer Contributions (based on the RRP Funding Policy) is included as Required Supplementary Information in the City's financial statements and provides a 10-year presentation of the employer contributions.

B. BENEFITS

The Fund provides retirement, disability, and death benefits according to the provisions of Title 22 of the Philadelphia Code. These provisions prescribe retirement benefit calculations, vesting thresholds, and minimum retirement ages that vary based on bargaining unit, uniform/non-uniform status, and entry date into the System.

Non-uniform employees may retire at either age 55 with up to 80% of average final compensation ("AFC") or age 60 with up to either 100% or 25% of AFC, depending on entry date into the Fund. Uniform employees may retire at either age 45 with up to 100% of AFC or age 50 with up to either 100% or 35% of AFC, depending on entry date into the Fund. Survivorship selections may result in an actuarial reduction to the calculated benefit.

Members may qualify for service-connected disability benefits regardless of length of service. Service-connected disability benefits are equal to 70% of a member's final rate of pay and are payable immediately without an actuarial reduction. These applications require approval by the Board. Eligibility to apply for non-service-connected disability benefits varies by bargaining unit and uniform/non-uniform

IV. OTHER INFORMATION (continued)
1. CITY PENSION PLANS (continued)
B. BENEFITS (continued)

status. Non-service-connected disability benefits are determined in the same manner as retirement benefits, and are payable immediately.

Service-connected death benefits are payable to:

I. surviving spouse/life partner at 60% of final rate of pay plus up to 2 children under age 18 at 10% each of final rate of pay (maximum payout: 80%);

II. if no surviving spouse/life partner, up to 3 children under age 18 at 25% each of final rate of pay (maximum payout 75%); or

III. if no surviving spouse/life partner or children under age 18, up to 2 surviving parents at 15% each of final rate of pay (maximum payout 30%).

Non-service-connected deaths are payable as a lump sum payment, unless the deceased was either vested or had reached minimum retirement age for their plan, in which case the beneficiary(ies) may instead select a lifetime monthly benefit, payable immediately with an actuarial reduction.

A Pension Adjustment Fund (“PAF”) is funded with 50% of the excess earnings that are between 1% and 6% above the actuarial assumed earnings rate. Each year within sixty days of the end of the fiscal year, by majority vote of its members, the Board of Directors of the Fund (the “Board”) shall consider whether sufficient funds have accumulated in the PAF to support an enhanced benefit distribution (which may include, but is not limited to, a lump sum bonus payment, monthly pension payment increases, ad-hoc cost-of-living adjustments, continuous cost-of-living adjustments, or some other form of increase in benefits as determined by the Board) to retirees, their beneficiaries and their survivors. As of July 1, 2020, the date of the most recent actuarial valuation, there was $1,243,871 in the PAF and the Board voted to make PAF distributions of $0 during the fiscal year ended June 30, 2021.

The Fund includes a Deferred Retirement Option Plan (“DROP Plan”). The DROP Plan allows a participant to declare that they will retire within 4 years. During the 4-year period, the City will make no further contributions for the participant. The participant would continue to work and to receive their salary; however, any increases would not be counted towards their pension benefit. During the 4-year period the individual participates in the DROP Plan, their pension benefits will be paid into an escrow account in the participant's name. After the 4-year period, the participant would begin to receive their pension benefits and the amount that has

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

B. BENEFITS (continued)

been accumulated in the escrow account in a lump sum payment. The balance in the DROP Plan as of June 30, 2021 is $114.6 million.

C. INVESTMENTS

The Pension Board's Investment Policy Statement provides, in part:

The overall investment objectives and goals should be achieved by use of a diversified portfolio, with safety of principal a primary emphasis. The portfolio policy should employ flexibility by prudent diversification into various asset classes based upon the relative expected risk-reward relationship of the asset classes and the expected correlation of their returns.

The Fund seeks an annual total rate of return of not less than 7.50% over a full market cycle. It is anticipated that this return standard should enable the Fund to meet its actuarially assumed earnings projection of 7.50% over a market cycle. The investment return assumption was reduced by the Board from 7.55% to 7.50% from the prior fiscal year. The Fund's investment program will pursue its aforestated total rate of return by a combination of income and appreciation, relying upon neither exclusively in evaluating a prospective investment for the Fund.

All investments are made only upon recommendation of the Fund's Investment Committee and approval by a majority of the Pension Board. In order to document and communicate the objectives, restrictions, and guidelines for the Fund's investment staff and investments, a continuously updated Investment Policy Statement is maintained. The Investment Policy Statement is updated (and re-affirmed) each year at the January Board meeting.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

C. INVESTMENTS (continued)

The following was the Board's approved asset allocation policy as of April 22, 2021:

Asset Class	Target Allocation
Broad Fixed Income	13.0%
High Yield	1.0%
Global Aggregate	1.0%
Emerging Market Debt	2.0%
U.S. Large Cap Core Equity	20.0%
U.S. Mid Cap Core Equity	4.0%
U.S. Small Cap Core Equity	4.0%
Global Low Volatility Equity	10.0%
International Developed Large Cap Equity	10.0%
International Small Cap Equity	3.0%
Emerging Market Equity	3.0%
Core Real Estate	10.0%
Public REITs	1.0%
Opportunistic Real Estate	1.0%
Global Infrastructure	5.0%
Private Equity	12.0%
Total	100%

Money-Weighted Rate of Return

For the year ended June 30, 2021, the annual money-weighted return on pension plan investments, net of pension plan investment expense, was 28.23%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested.

D. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

Financial statements of the Fund are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the Fund.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

D. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Methods Used to Value Investments

The Fund's investments are reported at fair value. Fair value is the amount that the Fund can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller; that is, other than in a forced or liquidation sale. Fixed income securities and common and preferred stocks are generally valued based on published market prices and quotations from national security exchanges or security pricing services. Securities which are not traded on a national security exchange are valued by the respective fund manager or other third parties based on similar sales.

For private market investments which include private equity, private debt, venture capital, hedge funds and equity real estate investments where no readily ascertainable market value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Some of the investment values provided in the report are estimates due to a lag in reporting for private market investments.

Futures contracts, foreign exchange contracts, and options are marked-to-market daily with changes in market value recognized as part of net appreciation/depreciation in the fair value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Investment expenses consist of investment manager fees and investment consultant fees related to the traditional investments only, and not those fees related to the alternative investments. Unsettled investment sales are reported as Accrued Interest and Other Receivable, and unsettled investment purchases are included in Accrued Expenses and Other Liabilities.

Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

Income Taxes

The Fund qualifies under Section 401(a) of the Internal Revenue Code (IRC) and is exempt from income taxation as allowed by Section 501(a) of the IRC.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

D. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Related Parties

The City's Department of Finance provides cash receipt and cash disbursement services to the Fund. The City Solicitor's office provides legal services to the Fund. Other administrative services are also provided by the City.

Use of Estimates in Preparing Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Risks and Uncertainties

The Fund invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the Fund’s Statement of Fiduciary Net Position.

Contributions are calculated based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimation and assumption process, it is at least reasonably possible that changes in these statements and assumptions in the near term would be material to the financial statements.

Administrative Expenses

Administrative expenses of the Fund are paid for by the Fund.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING

Legal Provisions

The Fund is authorized to invest in "prudent investments," including obligations of the U.S. Treasury, agencies and instrumentalities of the United States, investment grade corporate bonds, common stock, real estate, private market, etc. City ordinances contain provisions which preclude the Fund from investing in organizations that conduct business in certain countries and also impose limitations on the amounts invested in certain types of securities.

Custodial Credit Risk

Custodial credit risk for Deposits is the risk that in the event of a bank failure, the Fund’s deposits may not be returned to them. The Fund’s cash deposits are held in two banks as of June 30, 2021. Amounts are insured up to $250,000 per bank by the Federal Deposit Insurance Corporation (FDIC). Deposits in excess of the FDIC limit are collateralized with securities held by the pledging financial institution’s trust department or agent in the Fund’s name. The Fund classifies Money Market funds held by custodian institution, JPMorgan, N.A., as cash equivalents. The Fund also classifies Treasury Bills as cash equivalents if the date of maturity is three months or less from the acquisition date. Custodial credit risk for investments is the risk that in the event of counter-party failure, the Fund may not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities held by the counterparty or counterparty’s trust department, are uninsured and are not registered in the name of the Fund. The Fund requires that all investments be clearly marked as to ownership, and to the extent possible, be registered in the name of the Fund. Certain investments may be held by the managers in the Fund’s name.

Interest Rate Risk

Interest rate risk is the largest risk faced by an investor in the fixed income market. The price of a fixed income security generally moves in the opposite direction of the change in interest rates. Securities with long maturities are highly sensitive to interest rate changes.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The higher the duration, the greater the changes in fair value when interest rates change. The Fund measures interest rate risk using *segmented time distribution*, which shows the total fair value of investments maturing during a given period.

The table below details the exposure to interest rate changes based upon maturity dates of the fixed income securities at June 30, 2021:

2021 (in Thousands)	Total Fair Value	Less Than 1 Year	1-5 Years	6-10 Years	More Than 10 Years
Asset Backed Securities	$ 32,903	$ 1,046	$ 6,624	$ 9,589	$ 15,644
CDO	2,546	2,546	-	-	-
CMO/REMIC	3,677	991	10	46	2,630
Commercial Mortgage Backed Securities	22,886	7,144	-	309	15,433
Corporate Bonds	351,943	76,108	76,400	128,947	70,488
Government Bonds	386,787	113,080	150,902	57,837	64,968
Mortgage Backed Securities	126,780	328	721	2,218	123,513
Municipal Bonds	10,121	-	1,767	2,988	5,366
Total Interest Risk of Debt Securities	$ 937,643	$ 201,243	$ 236,424	$ 201,934	$ 298,042

Concentration of Credit Risk

Concentration of credit risk is the risk of substantial loss if investments are concentrated in one issuer. As of June 30, 2021, the Fund has no single issuer that exceeds 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are excluded.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Credit Risk

Credit Risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Fund is subject to credit risk on $937.6 million of directly owned fixed income securities. The Fund's directly owned rated debt investments as of June 30, 2021 were rated by Standard & Poor's, a nationally recognized statistical rating agency and are presented below using Standard & Poor's rating scale:

		Credit Rating										
2021 (in Thousands)	Total Fair Value	AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	$ 32,903	$ 10,192	$ 4,286	$ 672	$ 4,675	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,078
CDO	2,546	1,762	784	-	-	-	-	-	-	-	-	-
CMO/REMIC	3,677	439	2,870	106	240	-	17	-	-	-	-	5
Commercial Mortgage Backed Securities	22,886	15,054	5,224	973	-	-	24	-	-	-	-	1,611
Corporate Bonds	351,943	1,592	8,634	63,490	116,496	69,394	58,932	20,315	-	-	-	13,090
Government Bonds	386,787	7,016	286,002	10,877	44,272	22,739	10,416	2,873	1,752	33	455	352
Mortgage Backed Securities	126,780	-	126,780	-	-	-	-	-	-	-	-	-
Municipal Bonds	10,121	-	4,783	4,073	410	855	-	-	-	-	-	-
Total Interest Risk of Debt Securities	$ 937,643	$ 36,055	$ 439,363	$ 80,191	$ 166,093	$ 92,988	$ 69,389	$ 23,188	$ 1,752	$ 33	$ 455	$ 28,136

Foreign Currency Risk

The Fund's exposure to foreign currency risk derives from its position in foreign currency-denominated cash and investments in fixed income, equities, and derivatives. The foreign currency investment in equity securities is 39.4% of the total investment in equities.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Foreign Currency Risk

The Fund's exposure to foreign currency risk at June 30, 2021 was as follows (expressed in thousands):

Currency	Cash	Fixed Income	Equities	Derivatives	Total
Euro (EUR)	$ 1,886	$ 1,475	$ 490,645	$ (268)	$ 493,738
Japanese Yen (JPY)	1,554	-	332,288	31	333,873
Pound Sterling (GBP)	970	1,091	198,494	-	200,555
Canadian Dollar (CAD)	316	1,260	169,882	(34)	171,424
Hong Kong Dollar (HKD)	367	-	141,090	-	141,457
Australian Dollar (AUD)	326	7,266	114,227	267	122,086
Swiss Franc (CHF)	725	-	116,925	98	117,748
Swedish Krona (SEK)	235	-	51,060	7	51,302
South Korean Won (KRW)	-	-	49,240	(132)	49,108
Danish Krone (DKK)	211	-	30,289	10	30,510
Mexican Peso (MXN)	80	18,242	6,230	(28)	24,524
South African Rand (ZAR)	108	10,241	11,195	(31)	21,513
Brazilian Real (BRL)	60	4,967	15,078	232	20,337
Singapore Dollar (SGD)	228	122	14,208	4	14,562
Indonesian Rupiah (IDR)	-	6,914	6,413	-	13,327
Norwegian Krone (NOK)	209	-	12,829	-	13,038
Malaysian Ringgit (MYR)	45	7,138	5,645	-	12,828
Thai Baht (THB)	(2)	1,169	6,886	(43)	8,010
Israeli New Shekel (ILS)	199	-	7,562	-	7,761
Columbian Peso (CLP)	70	6,711	99	19	6,899
New Zealand Dollar (NZD)	164	-	6,098	4	6,266
Polish Zloty (PLN)	3	-	2,595	6	2,604
All Others	2,893	6,022	15,178	(388)	23,705
	$ 10,647	$ 72,618	$ 1,804,156	$ (246)	$ 1,887,175

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Derivatives

The Fund may invest in derivatives as permitted by guidelines established by the Pension Board. Pursuant to such authority, the Fund may invest in foreign currency forward contracts, options, futures (S&P Fund) and swaps. No derivatives were purchased with borrowed funds.

Derivatives are generally used to provide market exposure in the equity portfolio and to hedge against foreign currency risk and changes in interest rates, improve yield and adjust the duration of the Fund's fixed income portfolio. These securities are subject to changes in value due to changes in interest rates or currency valuations. Credit risk for derivatives results from the same considerations as other counterparty risk assumed by the Fund, which is the risk that the counterparty might be unable to meet its obligations.

Derivative instruments such as swaps, options, futures, and forwards are often complex financial arrangements used by governments to manage specific risks or to make investments. By entering into these arrangements, governments receive and make payments based on market prices without actually entering into the related financial or commodity transactions. Derivative instruments associated with changing financial and commodity prices result in changing cash flows and fair values that can be used as effective risk management or investment tools. Derivative instruments, however, also can expose governments to significant risks and liabilities.

The Fund enters into a variety of financial contracts, which include options, futures, forwards, and swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts, and U.S. treasury strips. The contracts are used primarily to enhance performance and reduce the volatility of the portfolio. The Fund is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The Fund generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The Fund is exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions. The notional or contractual amounts of derivatives indicate the extent of the Fund's involvement in the various types and uses of derivative financial instruments and do not measure

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

the Fund's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives.

Derivative Instruments

The following table summarizes aggregate notional or contractual amounts for the Fund's derivative financial instruments at June 30, 2021 in addition to the fair value and change in the fair value of derivatives.

List of Derivatives Aggregated by Investment Type

Classification	Change in Fair Value		Fair Value at June 30, 2021		Notional
Investment Derivatives					
Forwards Currency Contracts	Net Appreciation (Depreciation) in Investments	$ (381,815)	Investments	$ (238,326)	$ 302,429,056
Futures	Net Appreciation (Depreciation) in Investments	(389,348)	Investments	(370,770)	218
Grand Totals		$ (771,163)		$ (609,096)	$ 302,429,274

A Derivatives Policy Statement identifies and allows common derivative investments and strategies, which are consistent with the Investment Policy Statement of the City of Philadelphia Municipal Fund. The guidelines identify transaction-level and portfolio-level risk control procedures and documentation requirements. Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have credit ratings available from nationally recognized rating institutions such as Moody, Fitch, and S&P. The details of other risks and financial instruments in which the Fund involves are described below.

Credit risk:

The Fund is exposed to credit risk on hedging derivative instruments that are in asset positions. To minimize its exposure to loss related to credit risk, it is the Fund's policy to require counterparty collateral posting provisions in its non-exchange - traded hedging derivative instruments. These terms require full

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

collateralization of the fair value of hedging derivative instruments in asset positions (net of the effect of applicable netting arrangements) should the counter-party's credit rating fall below AA as issued by Fitch Ratings and Standard & Poor's or Aa as issued by Moody's Investors Service. Collateral posted is to be in the form of U.S. Treasury securities held by a third-party custodian. The City has never failed to access collateral when required.

It is the Fund's policy to enter into netting arrangements whenever it has entered into more than one derivative instrument transaction with counterparty. Under the terms of these arrangements, should one party become insolvent or otherwise default on its obligations, close-out netting provisions permit the non-defaulting party to accelerate and terminate all outstanding transactions and net the transactions' fair values so that a single sum will be owed by, or owed to, the non-defaulting party.

Swap agreements:

These derivative instruments provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes, or interest rates. Under fixed interest rate type swap arrangements, the Fund receives the fixed interest rate on certain equity or debt securities or indexes in exchange for a fixed charge. There were no received-fixed interest Swaps during 2021. On its pay-variable, received-fixed interest rate swap, as LIBOR increases, the Fund's net payment on the swap increases. Alternatively, on its pay-fixed, receive-variable interest rate swap, as LIBOR or the SIFMA swap index decreases, the Fund's net payment on the swap increases.

Futures contracts:

These derivative instruments are types of contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the Fund enters into short sales, sales of securities it does not presently own, to neutralize the

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are provided by investment securities pledged as collateral and by cash held by various brokers. Although the Fund has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The realized gain from Futures contracts was $5,416,665.

Forward contracts:

The Fund is exposed to basis risk on its forward contracts because of a possible mismatch between the price of the asset being hedged and the price at which the forward contract is expected to settle. The realized gain from forward contracts was $2,855,531.

Termination risk:

The Fund or its counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. In addition, the Fund is exposed to termination risk on its receive-fixed interest rate swap. The Fund is exposed to termination risk on its rate cap because the counterparty has the option to terminate the contract if the SIFMA swap index exceeds 12%. If at the time of termination, a hedging derivative instrument is in a liability position, the City would be liable to the counterparty for a payment equal to the liability, subject to netting arrangements.

Rollover risk:

The Fund is exposed to rollover risk on hedging derivative instruments that are hedges of debt that mature or may be terminated prior to the maturity of the hedged debt. When these hedging derivative instruments terminate, or in the case of a termination option, if the counterparty exercises its option, the Fund will be re-exposed to the risks being hedged by the hedging derivative instrument.

Fair Value Measurement

The accounting pronouncement on fair value measurements establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Fair Value Measurement (continued)

The Municipal Pension Fund has the following recurring fair value measurement as of June 30, 2021 (expressed in thousands):

		Fair Value Measurements Using		
	June 30, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
U.S. Treasury Securities	$ 268,106	$ -	$ 268,106	$ -
Agency Bonds	8,985	-	8,985	-
Asset Backed Securities	32,903	-	32,903	-
Collateralized Debt Obligation	2,546	-	2,546	-
Corporate Bonds	351,943	-	351,943	-
Government Bonds	104,432	-	104,432	-
Mortgage Backed Securities	153,343	-	153,343	-
Municipal Bonds	10,121	-	10,121	-
Sovereign Debt	5,264	-	5,264	-
Mutual Funds	1,361	1,361	-	-
Equity	4,583,162	4,579,966	1,143	2,053
Total Investments by Fair Value Level	5,522,166	4,581,327	938,786	2,053
Investments Measured at the Net Asset Value (NAV)				
Credit Distressed Hedge Fund	621			
Equity Long/Short Hedge Funds	33,042			
Real Estate	568,769			
Private Equity	849,366			
Fixed Income Hedge Funds	35,850			
Total Investments Measured at the NAV	1,487,648			
Total Investments Measured at Fair Value	$ 7,009,814			
Investment Derivative Instruments				
Equity Index Futures (Assets)	$ 22	$ 22	$ -	
Equity Index Futures (Liabilities)	(452)	(452)	-	
Currency Futures (Assets)	59	59	-	
Forward Currency Contracts (Assets)	1,179	-	1,179	
Forward Currency Contracts (Liabilities)	(1,417)	-	(1,417)	
Total Investment Derivative Instruments	$ (609)	$ (371)	$ (238)	

Equity securities classified in Level 1 of the fair value hierarchy are valued using quoted market prices. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Equities in Level 3 are valued using discounted cash flow techniques.

Derivative instruments classified in Level 1 of the fair value hierarchy are valued using quoted market prices. Derivative instruments classified in Level 2 are valued using a market approach that considers benchmark for foreign exchange rates.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Fair Value Measurement (continued)

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access. Such inputs include quoted prices in active markets for identical assets or liabilities.

Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; or other inputs that are observable or can be corroborated by observable market data substantially for the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant judgment or estimation.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table (expressed in thousands):

		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Investment Measured at the Net Asset Value (NAV)				
Credit Distressed Hedge Fund	$ 621	$ -	Quarterly	90 Days
Equity Long/Short Hedge Funds	33,042	-	Quarterly	90 Days' Notice
Real Estate	568,769	16,576	N/A	N/A
Private Equity	849,366	306,593	N/A	N/A
Fixed Income Hedge Funds	35,850	-	Quarterly	90-120 Days
Total Investments Measured at the NAV	$ 1,487,648			

1) **Credit distressed hedge funds**: The Funds seek to identify and exploit event driven opportunities both on the long and short side in the stressed and distressed corporate debt markets. Investments are generally driven by fundamental, value-oriented analysis and specific credit events. This Fund maintains the flexibility to invest globally and across capital structures of stressed and distressed companies. Investments generally target secondary U.S. credit opportunities across all tranches of a company's debt capital structure. The Fund may also invest opportunistically in certain equities, long and short. The fair values of the investments in this type have been determined using the

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Fair Value Measurement (continued)

NAV per share (or its equivalent) of the investments. Investments can be redeemed with a 90 days' notice. This Fund has been terminated but due to its structure and illiquid nature, investments haven't been fully liquidated yet.

2) **Equity long/short hedge funds**: This Fund will typically hold 0-50 long positions and 10-15 short positions in U.S. common stocks. Management has the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position. The Fund mitigates market risk by utilizing short positions. In periods of extreme volatility, the Fund may hold a significant portion of its assets in cash. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investment can be redeemed with a 90 days' notice.

3) **Real estate funds:** This type includes funds that invest in U.S. and Non-U.S. commercial and residential real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. However, the individual investments that will be sold have not yet been determined. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Once it has been determined which investments will be sold and whether those investments will be sold individually or in a group, the investments will be sold in an auction process. The investee fund's management is required to approve of the buyer before the sale of the investments can be completed. It is expected that the underlying assets of the funds will be liquidated over the next seven to 10 years.

4) **Private equity funds**: The primary goal of these Funds is to generate returns for investors that exceed private equity industry benchmarks and are commensurate with asset class risk through the construction of a portfolio of opportunistic, highly performing private equity investments. Investments these funds may undertake include early-stage venture capital, later-stage growth financings, leveraged buyouts of medium and large-sized companies, mezzanine investments, PIPES and investments in companies that are being

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Fair Value Measurement (continued)

taken private. These investments can never be redeemed with the funds. Instead, the nature of the investments in this type is that distributions are received through the liquidation of the underlying assets of the fund. If these investments were held, it is expected that the underlying assets of the fund would be liquidated over five to 10 years. The fair values of the investments in this type have been determined using recent observable transaction information for similar investments and nonbinding bids received from potential buyers of the investments. Once a buyer has been identified, the investee fund's management is required to approve of the buyer before the sale of the investments can be completed.

5) **Fixed income hedge funds:** The primary goal of these Funds is to create alpha by sourcing proprietary opportunities, avoiding capital loss, buying securities below their intrinsic value, and selling securities above their intrinsic value. Firms look for opportunities that are currently mispriced, based on fundamentals or potentially an event that may improve the price of the holding. Investments are generally driven by fundamental, value-oriented analysis, and specific credit events. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments. Investments can be redeemed with a 90-120 days' notice.

Securities Lending Program

The Fund, pursuant to a Securities Lending Authorization Agreement, has authorized J.P. Morgan Bank and Trust Company (J.P. Morgan) to act as the Fund's agent in lending the Fund's securities to approved borrowers. J.P. Morgan, as agent, enters into Securities Loan Agreements with borrowers.

During the fiscal year, J.P. Morgan lent, on behalf of the Fund, certain securities of the Fund held by J.P. Morgan Chase Bank, N.A. as custodian and received cash or other collateral including securities issued or guaranteed by the United States, U.K., and Eurozone governments. J.P. Morgan does not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to at least 102% or 105% of the market value of the loaned securities.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

E. CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING (continued)

Fair Value Measurement (continued)

Pursuant to the Securities Lending Authorization Agreement, J.P. Morgan had an obligation to indemnify the Fund in the event of default by a borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year that resulted in a declaration or notice of default of the borrower.

During the fiscal year, the Fund and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested in a separately managed account based upon the investment guidelines established by the Fund. As of June 30, 2021, the weighted average maturity was 48 days and the final maturity was 351 days. Because the securities lending transactions were terminable at will, their duration did not generally match the duration of the investments made with the cash collateral received from the borrower.

On June 30, 2021, the Fund had no credit risk exposure to borrowers because all borrowers were required to deliver collateral for each loan.

As of June 30, 2021, the fair value of securities on loan was $176.2 million. Associated collateral totaling $182.0 million was comprised of cash which was invested in a separately managed account based upon the investment guidelines established by the Fund. As of June 30, 2021, the invested cash collateral was $182.0 million and is valued at amortized cost.

F. INVESTMENT ADVISORS

The Fund utilizes investment advisors to manage long-term debt, real estate, private market, and equity portfolios. To be eligible for consideration, investments must meet criteria set forth in governing laws and regulations.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

G. NET PENSION LIABILITY

The components of the net pension liability as of June 30, 2021 were as follows:

Total Pension Liability	$	12,218,303,114
Plan Fiduciary Net Position		7,424,982,787
Net Pension Liability	$	4,793,320,327

Plan Fiduciary Net Position as a Percentage of the Total Pension Liability is 60.8%.

The Water Fund's portion of the net pension liability was $333,063,847 and $440,943,662 as of June 30, 2021 and 2020, respectively.

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2020 and was rolled forward to June 30, 2021. The June 30, 2020 actuarial valuation used the following actuarial assumptions, applied to all periods including the measurement period:

Actuarial Cost Method: Entry Age Normal
Investment Rate of Return: 7.50% compounded annually, net of expenses
Salary Increases: Age Based Table

The investment return assumption remained changed from 7.55% from the prior year valuation to 7.50% for the current year valuation.

To recognize the expense of the benefits payable under the Pension Adjustment Fund, the actuarial liabilities have been increased by 0.54%. This estimate is based on the statistical average expected value of the benefits.

Mortality Rates: For Municipal and Elected Officials, 127% and 119% for males and females, respectively, of the RP-2014 Healthy Annuitant Table projected from base year of 2006 to 2021 using mortality improvement scale MP-2017. For Uniform, 115% of the RP-2014 Blue Collar Healthy Annuitant Table projected from base year of 2006 to 2021 using mortality improvement scale MP-2017.

The measurement date for the net pension liability (NPL) is June 30, 2021. Measurements are based on the fair value of assets as of June 30, 2021 and the total pension liability (TPL) as of the valuation date, July 1, 2020, updated to June 30, 2021. The roll-forward procedure included the addition of service cost and interest cost offset by actual benefit payments. During the measurement year, the collective

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued)

G. NET PENSION LIABILITY (continued)

NPL decreased by approximately $1.41 billion. The service cost and interest cost increased the collective NPL by the approximately $1.07 billion while contributions plus investment income offset by administrative expenses decreased the collective NPL by approximately $2.53 billion.

Additionally, there was an actuarial experience gain during the year of approximately $2.0 million.

Long-term expected rate of return:

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2021 are summarized in the following table:

Asset Class	Long-Term Expected Rate of Return
Broad Fixed Income	1.9%
High Yield	4.3%
Global Aggregate	1.3%
Emerging Market Debt	4.8%
U.S. Large Cap Core Equity	7.3%
U.S. Mid Cap Core Equity	7.6%
U.S. Small Cap Core Equity	8.2%
Global Low Volatility Equity	6.7%
International Developed Large Cap Equity	7.4%
International Small Cap Equity	8.0%
Emerging Market Equity	8.0%
Hedge Funds	5.4%
Core Real Estate	6.2%
Public REITs	5.6%
Opportunistic Real Estate	11.0%
Global Infrastructure	7.1%
Private Equity	11.3%

The above table reflects the expected real rate of return for each major asset class. The expected inflation rate is projected at 2.0% for the same time period.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued

G. NET PENSION LIABILITY (continued)

Discount Rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the participating governmental entity contributions will be made at rates equal to the difference between the actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods on projected benefit payment to determine the total pension liability.

Sensitivity of the net pension liability: The following presents the net pension liability of the Fund, calculated using the discount rate of 7.50%, as well as what the Fund's net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

	1% Decrease 6.50%	Discount Rate 7.50%	1% Increase 8.50%
Total Pension Liability	$ 13,475,011,590	$ 12,218,303,114	$ 11,147,541,616
Plan Fiduciary Net Position	7,424,982,787	7,424,982,787	7,424,982,787
Collective Net Pension Liability	$ 6,050,028,803	$ 4,793,320,327	$ 3,722,558,829
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	55.1%	60.8%	66.6%

H. GUARANTEE OF BENEFITS

Benefits under the Fund are guaranteed by statute. In the event that employee contributions do no equal required benefits, the City's General Fund must provide any shortfall.

I. PARTICIPATION IN THE FUND

The trustees for the Fund are also members of the Fund and as such, are subject to the provisions of the Fund as described in the notes to these financial statements.

J. SUBSEQUENT EVENTS

The Plan has evaluated subsequent events occurring after the statement of fiduciary net position through the date the financial statements were available to be used.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued

K. REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

Changes in Collective Net Pension Liability: The following table shows the changes in total pension liability (TPL), the plan fiduciary net position (i.e., fair value of the System assets) (FNP), and the net pension liability (NPL) during the measurement period ended on June 30, 2021.

Change in Collective Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/20	$ 11,983,391,471	$ 5,782,890,966	$ 6,200,500,505
Changes for the year:			
Service cost	187,598,279		187,598,279
Interest	884,098,846		884,098,846
Change of benefits	-		-
Differences between expected and actual experience	(2,417,031)		(2,417,031)
Changes of assumptions	57,076,512		57,076,512
Contributions - employer		788,483,157	(788,483,157)
Contributions - member		111,272,801	(111,272,801)
Net investment income		1,643,489,659	(1,643,489,659)
Benefit payments	(891,444,963)	(891,444,963)	-
Administrative expense		(9,708,833)	9,708,833
Net changes	234,911,643	1,642,091,821	(1,407,180,178)
Balances at 6/30/21	$ 12,218,303,114	$ 7,424,982,787	$ 4,793,320,327

Employer's Proportionate Shares: GASB 68 requires that the proportionate share for each employer be determined based upon the "employer's projected long-term contribution effort to the pension…as compared to the total long-term contribution effort of all employers." In addition to the City, three governmental agencies currently participate in the system, PHDC, PPA, and PMA. The method of allocation is based on the ratio of quasi-agency contributions in proportion to total contributions by the plan.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued

K. REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS (continued)

Pension amounts by employer: The following schedule presents the pension amounts for each participating employer: Philadelphia Parking Authority (PPA), Philadelphia Municipal Authority (PMA), Philadelphia Housing Development Corporation (PHDC), and the City of Philadelphia (City):

Schedule of Pension Amounts by Employer

	For the year ended	PPA	PMA	PHDC	City	Total
Collective pension expenses		$ 5,175,725	$ 230,032	$ 690,097	$ 377,291,197	$ 383,387,051
Change in proportion		(16,374,625)	219,342	(836,548)	16,991,831	-
Contribution difference		5,839,032	89,271	551,386	(6,479,688)	-
Employer pension expense		(5,359,868)	538,645	404,935	387,803,340	383,387,051
Net pension liability	6/30/20	94,867,658	3,100,250	11,160,901	6,091,371,696	6,200,500,505
Net pension liability	6/30/21	64,709,824	2,875,992	8,627,977	4,717,106,534	4,793,320,327
Change in net pension liability		(30,157,834)	(224,258)	(2,532,924)	(1,374,265,162)	(1,407,180,178)
Deferred outflows	6/30/20	16,695,920	699,828	1,660,871	371,962,899	391,019,518
Deferred outflows	6/30/21	13,500,230	953,570	1,422,257	103,657,135	119,533,192
Change in deferred outflows		(3,195,690)	253,742	(238,614)	(268,305,764)	(271,486,326)
Deferred inflows	6/30/20	(33,999,230)	(14,836)	(1,070,613)	(12,663,956)	(47,748,635)
Deferred inflows	6/30/21	38,103,598	441,599	1,558,863	738,242,319	778,346,379
Change in deferred inflows		72,102,828	456,435	2,629,476	750,906,275	826,095,014
Employer contributions		17,497,905	589,882	2,210,995	768,184,375	788,483,157
Employer pension expense		(5,359,868)	538,645	404,935	387,803,340	383,387,052

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued

K. REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS (continued)

Reconciliation of Net Pension Liability

The following table reconciles the Collective Net Pension Liability to the amount reported in the Statement of Net Position included in the City of Philadelphia's Annual Comprehensive Financial Report:

Reconciliation of Collective Net Pension Liability to the Primary Government Net Pension Liability

(Amounts in thousands of USD)

Municipal Pension Fund	Proportionate Share of NPL	Discretely Presented Component Units	City and Blended Component Units
City	$ 4,717,107	$ -	$ 4,717,107
PPA	64,710	64,710	-
PMA	2,876	-	2,876
PHDC (1)	8,628	8,628	-
Collective Net Pension Liability	$ 4,793,321	$ 73,338	$ 4,719,983
State Pension Fund			
PICA			1,368
City's Primary Government Net Pension Liability (Exhibit 1)			$ 4,721,351

(1) PHDC does not appear in the Component Unit Financial Statements (XI Statement of Net Position and Exhibit XII Statement of Activities) due to immateriality.

Deferred Outflows by Employer

The following table summarizes the deferred outflows allocated to each employer for experience, assumption changes, investment returns, and contribution differences:

Schedule of Employer's Deferred Outflows

	PPA	PMA	PHDC	CITY	Total
Proportionate Shares	1.35%	0.06%	0.18%	98.41%	100.0%
Experience	$ 136,736	$ 6,077	$ 18,232	$ 9,967,580	$ 10,128,625
Assumption changes	905,266	40,234	120,702	65,990,515	67,056,717
Investment return	-	-	-	-	-
Proportion change	-	702,643	-	27,699,040	28,401,683
Contribution difference	12,458,228	204,616	1,283,323	-	13,946,167
	$ 13,500,230	$ 953,570	$ 1,422,257	$ 103,657,135	$ 119,533,192

The Water Funds proportionate share of Deferred Outflows of Resources related to the pension plan as of June 30, 2021 and 2020 was $4,973,481 and $26,035,483, respectively.

IV. OTHER INFORMATION (continued)

1. CITY PENSION PLANS (continued

K. REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS (continued)

Deferred Inflows by Employer

The following table summarizes the deferred inflows allocated to each employer for experience, assumptions changes, investment return, and contribution differences:

Schedule of Employer's Deferred Inflows

	PPA	PMA	PHDC	CITY	Total
Proportionate Shares	1.35%	0.06%	0.18%	98.41%	100.0%
Experience	$ 26,104	$ 1,160	$ 3,481	$ 1,902,880	$ 1,933,625
Assumption changes	-	-	-	-	-
Investment return	9,909,876	440,439	1,321,317	722,393,272	734,064,904
Proportion change	28,167,618	-	234,065	-	28,401,683
Contribution difference	-	-	-	13,946,167	13,946,167
	$ 38,103,598	$ 441,599	$ 1,558,863	$ 738,242,319	$ 778,346,379

The Water Fund's proportionate share of Deferred Inflows of Resources related to the pension plan as of June 30, 2021 and 2020 was $57,590,675 and $632,773, respectively.

Recognition of Deferred Outflows and Inflows by Employer

The following table shows the net amount of deferred outflows and inflows to be recognized by each participating employer in each of the next five years and the total thereafter:

Schedule of Employer's Recognition of Deferred Outflows and Inflows

For Year Ending	PPA	PMA	PHDC	CITY	Total
2022	$ (7,013,096)	$ 217,499	$ 45,318	$ (133,476,159)	$ (140,226,438)
2023	(6,833,679)	225,473	69,240	(120,397,333)	(126,936,299)
2024	(6,899,724)	67,117	6,351	(153,791,231)	(160,617,487)
2025	(3,856,871)	1,883	(257,514)	(226,920,461)	(231,032,963)
2026	-	-	-	-	-
Thereafter	-	-	-	-	-
Total	$ (24,603,370)	$ 511,972	$ (136,605)	$ (634,585,184)	$ (658,813,187)

IV. OTHER INFORMATION (continued)

2. ACCUMULATED UNPAID SICK LEAVE

Employees are credited with varying amounts of sick leave according to type of employee and/or length of service. Employees may accumulate unused sick leave to predetermined balances. Non-uniformed employees (upon retirement only) and uniformed employees (upon retirement or in case of death while on active duty) are paid varying amounts ranging from 25% to 60% of unused sick time, not to exceed predetermined amounts. Employees, who separate for any reason other than indicated above, forfeit their entire sick leave.

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB)

Plan Description: The City of Philadelphia self-administers a single employer, defined benefit plan that provides OPEB for all eligible retirees. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

Benefits Provided: The City of Philadelphia subsidizes health care for five years from the time of coverage election for eligible retirees. Certain union represented employees may defer their coverage until a later date, but the amount that the City pays for their health care is limited to the amount that the City would have paid at the date of their retirement. The City also provides lifetime insurance coverage for all eligible retirees. Firefighters are entitled to $7,500 coverage and all other employees receive $6,000 in coverage. The plan does not issue stand-alone financial statements, and the accounting for the plan is reported within the financial statements of the City of Philadelphia.

Funding Policy: The City's funding policy is to pay the net expected benefits for the current retirees. To provide health care coverage, the City pays a negotiated monthly premium for retirees covered by union contracts and is self-insured for non-union employees. The City's contributions are estimated to be about $97.8 million for fiscal year ended June 30, 2021.

Employees covered by benefit terms: At July 1, 2020, the following employees were covered by the benefit terms:

Medical Coverage	
Inactive employees or beneficiaries currently receiving medical coverage	3,054
DROPS with medical coverage	1,640
Inactive employees entitled to, but not yet receiving medical coverage	423
Active employees	28,889
Total	34,006

Life Insurance Coverage	
Inactive employees or beneficiaries currently receiving life insurance coverage	27,416
Active employees	28,889
Total	56,305

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Total OPEB Liability: The City's total OPEB liability as of June 30, 2021 of $2,087,200,000 was measured as of June 30, 2020 and was determined by an actuarial valuation as of June 30, 2020. The Water Fund's proportionate share of the OPEB liability as of June 30, 2021 was $157.2 million.

Actuarial assumptions and other inputs: The total OPEB liability in the June 30, 2020 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified.

Measurement Dates: June 30, 2020 and June 30, 2019; reporting dates June 30, 2021 and June 30, 2020.

Discount Rate:

2.21% per annum for the valuation measured as of June 30, 2020

3.50% per annum for the valuation measured as of June 30, 2019

Salary Increase Rate:

Age	Municipal and Elected Officials	Uniformed
<20	20.00%	20.00%
20	18.00%	11.00%
25	10.00%	7.00%
30	7.00%	5.00%
35	5.75%	4.25%
40	5.00%	4.00%
45	4.60%	3.50%
50	4.35%	3.30%
55	4.10%	3.00%
60	3.85%	3.00%
65+	3.50%	2.75%

Per Person Cost Trends: The trend rates represent the annual rate of increase in employer claim payments, employer premiums (including those paid to union-sponsored plans), and retiree contributions.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

To Year	Medical		Rx		Medical/Rx Combined	
Beginning July 1	Pre Medicare	Medicare Eligible	Pre Medicare	Medicare Eligible	Pre Medicare	Medicare Eligible
2021	8.50%	6.00%	9.00%	8.00%	8.60%	7.20%
2022	8.00%	5.75%	8.75%	7.75%	8.15%	6.95%
2023	7.50%	5.50%	8.50%	7.50%	7.70%	6.70%
2024	7.00%	5.25%	8.25%	7.25%	7.25%	6.45%
2025	6.61%	5.15%	7.65%	6.82%	6.82%	6.15%
2026	6.22%	5.06%	7.06%	6.39%	6.39%	5.86%
2027	5.83%	4.96%	6.46%	5.96%	5.96%	5.56%
2028	5.45%	4.86%	5.86%	5.53%	5.53%	5.26%
2029	5.06%	4.77%	5.27%	5.10%	5.10%	4.97%
2030	4.67%	4.67%	4.67%	4.67%	4.67%	4.67%
2031	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%
2032	3.91%	3.91%	3.91%	3.91%	3.91%	3.91%
2033	3.81%	3.81%	3.81%	3.81%	3.81%	3.81%
2034	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
2035	3.72%	3.72%	3.72%	3.72%	3.72%	3.72%
2036	3.69%	3.69%	3.69%	3.69%	3.69%	3.69%
2037	3.67%	3.67%	3.67%	3.67%	3.67%	3.67%
2038	3.66%	3.66%	3.66%	3.66%	3.66%	3.66%
2039	3.64%	3.64%	3.64%	3.64%	3.64%	3.64%
2040	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%
2041	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%
2042+	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%

Dental and vision costs are assumed to increase at 3% per year.

Retirees Share of Benefit Related Costs:

Percent of Retirees Electing Coverage

Participation rate for medical coverage

- 85% of future retirees from Non-Represented groups are assumed to elect post-retirement medical covers.
- 100% of future retirees from represented groups (DC 33, DC 47, Fire, and Police) are assumed to elect post-retirement medical coverage.
- 100% of DROP participants are assumed to continue in DROP for the remainder of their DROP period (maximum four years) and then retire with a medical benefit.

Participation rate for life insurance

- 95% of current and future retired firefighters who participated in the pension plan are assumed to be covered by City-provided life insurance.
- 87% of all other current and future retired pension plan participants are assumed to be covered by City-provided life insurance.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Mortality Rates:

It is assumed deaths of active municipal and elected members, 110% and 115%, for males and females, respectively, follows RP-2014 Employee Table projected from base year of 2006 to 2021 using mortality improvement scale MP-2017.

It is assumed deaths of active uniformed members follow 85% of the RP-2014 Blue Collar Employee Table projected from base year of 2006 to 2021 using mortality improvement scale MP-2017.

For municipal and elected members, 127% and 119% for males and females, respectively, the rate of post-retirement and post-disability mortality follow RP-2014 Healthy Annuitant Table projected from base year 2006-2021 using mortality improvement scale MP-2017.

For uniformed members, the rate of post-retirement and post-disability mortality follows 115% of the RP-2014 Blue Collar Healthy Annuitant Table projected from base year of 2006 to 2021 using mortality improvement scale MP-2017.

For municipal and elected members, the rate of post-disability mortality follows 95% of the RP-2014 Disabled Retiree Table projected from base year 2006-2021 using mortality improvement scale MP-2017.

For uniformed members, the rate of post-disability mortality follows 80% of the RP-2014 Disabled Retiree Table projected from base year 2006-2021 using mortality improvement scale MP-2017.

Change in the Total OPEB Liability:

The table below shows the changes in the Total OPEB Liability (TOL), the plan fiduciary net position (i.e., the fair value of Plan assets) (FNP), and the Net OPEB Liability (NOL) during the measurement period ended on June 30, 2020.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Change in Net OPEB Liability

	Increase (Decrease		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at 6/30/19	$ 1,935,300,000	$ -	$ 1,935,300,000
Changes for the year:			
Service cost	93,900,000	-	93,900,000
Interest	69,200,000	-	69,200,000
Changes of benefits	-	-	-
Differences between expected/actual	18,100,000	-	18,100,000
Changes of Assumptions	75,300,000	-	75,300,000
Contributions - employer	-	104,600,000	(104,600,000)
Contributions - non employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	-	-
Benefit payments	(104,600,000)	(104,600,000)	-
Administrative expense	-	-	-
Net changes	151,900,000	-	151,900,000
Balances at 6/30/20	$ 2,087,200,000	$ -	$ 2,087,200,000

During the measurement year, the NOL increased by approximately $151.9 million. The service cost and interest cost increased the NOL by approximately $163.1 million while contributions decreased the NOL by approximately $104.6 million. The employer contribution of $104.6 million is based on a blend of actual contributions provided by the City of Philadelphia and estimated contributions based on the prior report. Because a portion of the contribution is estimated, this was reviewed by the City for reasonability.

There was a loss of $18.1 million due to experience. This is due to the change in population between the June 30, 2018 valuation and the June 30, 2020 valuation.

There were assumption changes, such as the change in the 20-year bond buyer index rate, the change in the medical claims and trend assumptions, and the change in demographic assumptions, that resulted in a loss in the liability of $75.3 million.

There were no benefit changes during the measurement period.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Sensitivity of the total OPEB liability to changes in the discount rate:

The following represents the total OPEB liability (TOL) of the City, as well as what the City's total liability would be if it were calculated using a discount rate that is 1-percentage-point lower (1.21%) or 1-percentage-point higher (3.21%) than the current discount rate:

Changes in the discount rate affect the measurement of the TOL. Lower discount rates produce a higher TOL and higher discount rates produce a lower TOL. The table below shows the sensitivity of the NOL to the discount rate.

Sensitivity of Net OPEB Liability to Changes in Discount Rate

	1% Decrease 1.21%	Discount Rate 2.21%	1% Increase 3.21%
Total OPEB Liability	$ 2,257,900,000	$ 2,087,200,000	$ 1,930,700,000
Plan Fiduciary Net Position	-	-	-
Net OPEB Liability	$ 2,257,900,000	$ 2,087,200,000	$ 1,930,700,000
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.0%	0.0%	0.0%

A one percent decrease in the discount rate increases the TOL and NOL by approximately 8%. A one percent increase in the discount rate decreases the TOL and NOL by approximately 7%.

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates.
The following represents the total OPEB liability of the City, as well as what the City's total liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

Changes in healthcare trends affect the measurement of the TOL. Lower healthcare trends produce a lower TOL and higher healthcare trends produce a higher TOL. The table below shows the sensitivity of the NOL to the healthcare trends.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Sensitivity of Net OPEB Liability to Changes in Healthcare Cost Trend Rates

	1% Decrease	Discount Rate	1% Increase
Total OPEB Liability	$ 1,888,700,000	$ 2,087,200,000	$ 2,320,900,000
Plan Fiduciary Net Position	-	-	-
Net OPEB Liability	$ 1,888,700,000	$ 2,087,200,000	$ 2,320,900,000
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.0%	0.0%	0.0%

A one percent decrease in the healthcare trends decreases the TOL and NOL by approximately 10%. A one percent increase in the healthcare trend rate increases the TOL and NOL by approximately 11%.

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB.

For the year ended June 30, 2021, the City recognized OPEB expense of $154,300,000. The table below shows the development of OPEB expense.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Calculation of OPEB Expense

Fiscal Year Ending	June 30, 2021	June 30, 2020
Measurement Year Ending	June 30, 2020	June 30, 2019
Change in Net OPEB Liability	$ 151,900,000	$ 111,400,000
Change in Deferred Outflows	(70,700,000)	(41,700,000)
Change in Deferred Inflows	(31,500,000)	(31,500,000)
Non Employer Contributions	-	-
Employer Contributions	104,600,000	96,900,000
OPEB Expense	$ 154,300,000	$ 135,100,000
OPEB Expense as % of Payroll	8.03%	7.33%
Operating Expenses		
Service cost	$ 93,900,000	$ 82,400,000
Employee contributions	-	-
Administrative expenses	-	-
Total	$ 93,900,000	$ 82,400,000
Financing Expenses		
Interest cost	$ 69,200,000	$ 71,900,000
Expected return on assets	-	-
Total	$ 69,200,000	$ 71,900,000
Changes		
Benefit changes	$ -	$ -
Recognition of assumption changes	(17,100,000)	(25,500,000)
Recognition of liability gains and losses	8,300,000	6,300,000
Recognition of investment gains and losses	-	-
Total	$ (8,800,000)	$ (19,200,000)
OPEB Expense	$ 154,300,000	$ 135,100,000

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

At June 30, 2021, the City reported deferred outflows of resources and deferred inflow of resources related to OPEB from the following sources:

Schedule of Deferred Inflows and Outflows of Resources as of
June 30, 2021 Projected Fiscal Year End
June 30, 2020 Measurement Date

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 54,000,000	$ -
Changes in assumptions	108,900,000	143,800,000
Net difference between projected and actual earnings on OPEB plan investments	-	-
Contributions subsequent to the measurement date	(97,800,000)	-
Total	$ 65,100,000	$ 143,800,000

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2022	$ (8,800,000)
2023	(8,800,000)
2024	(8,700,000)
2025	6,300,000
2025	6,300,000
Thereafter	32,800,000

The subsequent contributions after the measurement date are reflected as a deferred outflow of resources, but this is not subject to a deferred recognition period in the OPEB expense. Instead, this will be fully recognized in the OPEB expense for the fiscal year ending June 30, 2022.

At June 30, 2021, the Water Fund reported deferred outflows of resources and deferred inflow of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	$ 12,348,000	$ 10,541,000
Contributions subsequent to measurement date	7,313,000	
Total	$ 19,661,000	$ 10,541,000

Amounts reported as deferred outflows and inflows of resources will be recognized in OPEB expense over a six-year period in the amount of $301,167 per year.

IV. OTHER INFORMATION (continued)

3. OTHER POSTEMPLOYMENT BENEFITS (OPEB) (continued)

Required Supplementary Information: The schedule below shows the changes in NOL and related ratios required by GASB.

Measurement of Year Ending	6/30/2020	6/30/2019	6/30/2018	6/30/2017
Total OPEB Liability				
Service cost (BOY)	$ 93,900,000	$ 82,400,000	$ 81,800,000	$ 89,300,000
Interest (includes interest on service cost)	69,200,000	71,900,000	67,900,000	56,100,000
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	18,100,000	-	56,800,000	-
Changes of assumptions	75,300,000	54,000,000	(147,800,000)	(105,600,000)
Benefit payments, including refunds of member contributions	(104,600,000)	(96,900,000)	(96,400,000)	(114,800,000)
Net change in total OPEB liability	**151,900,000**	**111,400,000**	**(37,700,000)**	**(75,000,000)**
Total OPEB liability - beginning	**1,935,300,000**	**1,823,900,000**	**1,861,600,000**	**1,936,600,000**
Total OPEB liability - ending	**2,087,200,000**	**1,935,300,000**	**1,823,900,000**	**1,861,600,000**
Plan Fiduciary Net Positions				
Contributions - employer	104,600,000	96,900,000	96,400,000	114,800,000
Contributions - non-employer	-	-	-	-
Contributions - member	-	-	-	-
Net investment income	-	-	-	-
Benefit payments, including refunds of member contributions	(104,600,000)	(96,900,000)	(96,400,000)	(114,800,000)
Administrative expense	-	-	-	-
Net change in plan fiduciary net position	-	-	-	-
Plan fiduciary net position - beginning	-	-	-	-
Plan fiduciary net position - ending	-	-	-	-
Net OPEB liability - ending	**2,087,200,000**	**1,935,300,000**	**$ 1,823,900,000**	**$ 1,861,600,000**
Plan fiduciary net position as a percentage of the total OPEB li	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Covered payroll	**$ 1,921,200,000**	**$ 1,842,600,000**	**$ 1,805,400,000**	**$ 1,744,700,000**
Net OPEB liability as a percentage of covered payroll	**108.64%**	**105.03%**	**101.02%**	**106.70%**

The Plan is not currently being pre-funded so there is no actuarially determined contribution shown below. The actuarially determined contribution is a target or recommended contribution to the OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contributions for the reporting period was adopted. The Actuarial Required Contribution (ARC) determined under GASB 45 is not a recommended contribution under Actuarial Standards of Practice, and thus is not shown below. If the Plan decides to pre-fund the liabilities; the actuary will provide an appropriate actuarially determined contribution.

IV. OTHER INFORMATION (continued)

4. PENNSYLVANIA INTERGOVERNMENTAL COOPERATION AUTHORITY (PICA)

PICA, a body corporate and politic, was organized in June 1991 and exists under and by virtue of the Pennsylvania Intergovernmental Cooperation Authority Act for Cities of the First Class (the Act). Pursuant to the Act, PICA was established to provide financial assistance to cities of the first class. The City currently is the only city of the first class in the Commonwealth of Pennsylvania. Under the Act, PICA is administered by a governing Board consisting of five voting members and two ex officio non-voting members. The Governor of Pennsylvania, the President Pro Tempore of the Pennsylvania Senate, the Minority Leader of the Pennsylvania Senate, the Speaker of the Pennsylvania House of Representatives, and the Minority Leader of the Pennsylvania House of Representatives each appoints one voting member to the Board.

The Act provides that, upon PICA's approval of a request of the City to PICA for financial assistance, PICA shall have certain financial and oversight functions. First, PICA shall have the power to issue bonds and grant or lend the proceeds thereof to the City. Second, PICA also shall have the power, in its oversight capacity, to exercise certain advisory and review powers with respect to the City's financial affairs, including the power to review and approve five-year financial plans prepared at least annually by the City and to certify noncompliance by the City with its current five-year financial plan (which certification would require the Secretary of the Budget of the Commonwealth of Pennsylvania to cause certain Commonwealth payments due to the City to be withheld).

PICA bonds are payable from the proceeds of a PICA tax on the wages and income earned by City residents. The City has reduced the amount of wage and earnings tax that it levies on City residents by an amount equal to the PICA tax so that the total tax remains the same. PICA returns to the City any portion of the tax not required to meet their debt service and operating expenses. In Fiscal 2021, this transfer amounted to $509.0 million.

5. RELATED PARTY TRANSACTIONS

The City is associated, through representation on the respective Board of Directors, with several local governmental organizations and certain quasi-governmental organizations created under the laws of the Commonwealth of Pennsylvania. These organizations are separate legal entities having governmental character and sufficient autonomy in the management of their own affairs to distinguish them as separate independent governmental entities.

IV. OTHER INFORMATION (continued)

5. RELATED PARTY TRANSACTIONS (continued)

A list of such related party organizations and a description of significant transactions with the City, where applicable, is as follows:

A. SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY (SEPTA)

During the year the City provided an operating subsidy of $84.61 million to SEPTA.

B. OTHER ORGANIZATIONS

The City provides varying levels of subsidy and other support payments which totaled $147.92 million during the year to the following organizations:

- Philadelphia Health Management Corporation
- Philadelphia Industrial Development Corporation
- Fund for Philadelphia Incorporated

6. RISK MANAGEMENT

The City is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The City (except for Aviation Fund operations, the Municipal Authority, and PICA) is self-insured for fire damage, casualty losses, public liability, Workers’ Compensation and Unemployment Compensation. The Aviation Fund is self-insured for Workers' Compensation and Unemployment Compensation and insured through insurance carriers for other coverage. The City is self-insured for medical benefits provided to employees in the Fraternal Order of Police, its City-administered health plan, the International Association of Fire Fighters, and District Council 47.

The City covers all claim settlements and judgments, except for those discussed above, out of the resources of the fund associated with the claim. Claim expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of the loss can be reasonably estimated. These losses include: an estimate of claims that have been incurred but not reported; the effects of specific, incremental claims adjustment expenditures, salvage, and subrogation; and unallocated claims adjustment expenditures.

IV. OTHER INFORMATION (continued)

6. RISK MANAGEMENT (continued)

At June 30, the amount of these liabilities was $391.8 million for the Primary Government. This liability is the City's best estimate based on available information. Changes in the reported liability since June 30, 2020 resulted from the following:

(Amounts in Millions of USD)

	Beginning Liability	Current Year Claims & Changes In Estimates	Claim Payments	Ending Liability
Fiscal 2019	$ 353.0	$ 207.9	$ (217.0)	$ 343.9
Fiscal 2020	343.9	271.9	(224.0)	391.8
Fiscal 2021	391.8	283.9	(222.6)	453.1

The City's Unemployment Compensation and Workers' Compensation coverages are provided through its General Fund. Unemployment Compensation and Workers' Compensation coverages are funded by a pro rata charge to the various funds. Payments for the year were $5.7 million for Unemployment Compensation claims and $75.0 million for Workers' Compensation claims.

The City's estimated outstanding workers' compensation liabilities are $297.0 million discounted at 3.5%. On an undiscounted basis, these liabilities total $386.7 million. These liabilities include provisions for indemnity, medical and allocated loss adjustment expense (ALAE). Excluding the ALAE, the respective liabilities for indemnity and medical payments relating to workers' compensation total $269.7 million (discounted) and $353.4 million (undiscounted). The Water Fund's accrued liability for workers' compensation was $23.8 million and $21.4 million at June 30, 2021 and 2020, respectively.

During the last five (5) fiscal years, no claim settlements have exceeded the level of insurance coverage for operations using third party carriers. None of the City's insured losses have been settled with the purchase of annuity contracts.

7. CONTINGENCIES

Generally, claims against the City are payable out of the General Fund, except claims against the City Water Department, City Aviation Division, or Component Units which are paid out of their respective funds and only secondarily out of the General Fund which is then reimbursed for the expenditure. Unless specifically noted otherwise, all claims hereinafter discussed are payable out of the General Fund or the individual

IV. OTHER INFORMATION (continued)

7. CONTINGENCIES (continued)

Enterprise Fund. The Act of October 5, 1980, P.L. 693, No. 142, known as the "Political Subdivision Tort Claims Act", established a $500,000 aggregate limitation on damages arising from the same cause of action or transaction or occurrence or series of causes of action, transactions, or occurrences with respect to governmental units in the Commonwealth such as the City. The constitutionality of that aggregate limitation has been upheld by the United States Supreme Court. There is no such limitation under federal law.

Various claims have been asserted against the City and in some cases lawsuits have been instituted. Many of these claims are reduced to judgment or otherwise settled in a manner requiring payment by the Water Fund. The aggregate estimate of loss deemed to be probable as of June 30, 2021 and 2020 is approximately $4.4 million and $4.2 million, respectively. This amount has been included on the Statement of Fund Net Position under Other Long-Term Liabilities.

The City's aggregate estimate of loss deemed to be probable is approximately $427.3 million. Of this amount, $35.1 million is charged to the current operations of the Enterprise Funds. The remaining $392.2 million pertaining to the General Fund is reflected in the City's Government Wide Statements

In addition to the above, there are certain lawsuits against the City for which an additional loss is reasonably possible. These lawsuits relate to General Fund and Enterprise Fund operations. The aggregate estimate of the amount of loss from these lawsuits in which some amount of loss is reasonably possible is approximately $100.5 million from the General Fund, $4.9 million from the Water Fund and $2.49 million from the Aviation Fund. This represents the best estimate of the entire current inventory of such litigation and pre-suits as of February 10, 2022.

On January 31, 2020, the United States Department of Health and Human Services declared a public health emergency for the United States to aid the nation's healthcare community in responding to a novel strain of the coronavirus ("COVID-19"). On March 11, 2020, the World Health Organization declared the COVID-19 outbreak to be a global pandemic, and on March 13, 2020, the President of the United States declared a national state of emergency.

The pandemic has led to widespread voluntary and government-mandated closings of local stores and businesses, which has resulted in significant job losses. These job losses have the potential to have a significant impact on all aspects of the City's operations. In addition, due to the temporary closure of all businesses that are not deemed life sustaining, State and Federal tax revenues are also significantly decreased. This decrease could result in less grant money that is relied upon by local municipalities to fund specific projects. In addition, the City's own source revenue or derived

IV. OTHER INFORMATION (continued)

7. CONTINGENCIES (continued)

revenues could be affected negatively. Overall, decreased funding could result in the City having to curtail or eliminate some services. The extent of the potential impact is unknown as the COVID-19 pandemic continues to develop and evolve.

During fiscal year 2021 in response to increased expenses related to COVID-19, various federal, state, and local recovery grants have become available to the City, including recovery grants under the Coronavirus Aid, Relief, and Economic Security Act of 2020 (the "CARES Act) and the American Rescue Plan Act of 2021 (the "American Rescue Plan") include substantial federal relief funds for state and local governments, including the City, to address the impact of COVID-19 on the economy, public health, state and local governments, individuals and businesses. The funds include the $476 million Coronavirus Relief Fund (via the CARES Act) and the $1.395 billion Coronavirus Local Fiscal Recovery Fund (via the American Rescue Plan), which represent the two largest allocations made to the City. The City expects to receive the Coronavirus Local Fiscal Recovery Funds under the American Rescue Plan in two tranches. The first half was received in June 2021 and the second half is expected to be received in the fourth quarter of fiscal year 2022.

8. SUBSEQUENT EVENTS

In preparing the accompanying financial statements, the Water Fund has reviewed events that occurred subsequent to June 30, 2021 through and including February 25, 2021. The following events are described below:

In October 2021, the City issued $231.9 million in Water and Wastewater Revenue Bonds, Series 2021C. The Series C Bonds were issued to provide funds to finance (i) capital improvements to the System and (ii) the costs of issuance related to the 2021C Bonds.

In October 2021, the City closed its City of Philadelphia, Water & Wastewater Revenue Bonds, Series D (PennVest Lawncrest) totaling $6.7 million.

In February 2021, the City closed its City of Philadelphia, Water & Wastewater Revenue Bonds, Series 2021 A (PennVest Torresdale). During Fiscal Year 2022, PennVest drawdowns for the project totaled $5 million which represents an increase in bond issuances.

Additionally, during Fiscal Year 2021 and Fiscal Year 2022, the Water Department received approval from the Pennsylvania Infrastructure Investment Authority (PennVest) for loans as noted below.

PennVest Flat Rock Dam - In July 2021, the PennVest Board approved a loan totaling $20.9 million for improvements to the City-owned Flat Rock Dam. The award is expected to close March 2022.

IV. OTHER INFORMATION (continued)

8. SUBSEQUENT EVENTS (continued)

PennVest Northeast Water Pollution Control Plant - In January 2022, the PennVest Board approved an increase to the award which now totals $106 million for construction. The award is expected to close April 2022.

PennVest Linear Assets - In October 2021, the PennVest Board approved a loan totaling $40.4 million to fund water main replacements in the City of Philadelphia. The award is expected to close during Fiscal Year 2023.

PennVest Stormwater Improvements – In January 2022, the Pennvest Board approved two loans for stormwater improvements totaling $15 million. The awards are expected to close during Fiscal Year 2023.

9. ACCOUNTS RECEIVABLE

Balances of accounts receivable and allowance for doubtful accounts consisted of the following:

FISCAL YEAR ENDED JUNE 30, 2021

Billed in Last Twelve Months	$	161,486,083
Billed in 15-Year Cycle Billing		16,804,513
Penalties on Receivables		1,848,294
Other Receivables		633,664
Subtotal		180,772,554
Bad Debt Written Off		(17,045,352)
	$	163,727,202
Allowance for Doubtful Accounts	$	14,832,810

FISCAL YEAR ENDED JUNE 30, 2020

Billed in Last Twelve Months	$	166,991,534
Billed in 15-Year Cycle Billing		8,190,578
Penalties on Receivables		9,070,359
Other Receivables		649,980
Subtotal		184,902,451
Bad Debt Written Off		(10,790,211)
	$	174,112,240
Allowance for Doubtful Accounts	$	15,281,690

IV. OTHER INFORMATION (continued)

10. LONG TERM AGREEMENTS

The City has entered into several long term agreements with third parties through the Philadelphia Municipal Authority as follows:

A. Automatic Meter Reading

In 1997, the City, through the PMA, entered into a long-term contract with ITRON for the replacement of residential water meters with new meters equipped with radio transmitter devices and for services and materials required to implement operate and maintain the Water Department's Automatic Meter Reading ("AMR") System. The agreement with ITRON expired in September 2019.

The Water Department made payments, which are an operating expense of the Water Department, to ITRON for Fiscal Year 2019 of $3,067,183 for meter reading services and $2,426,770 for new water meters. Payments for Fiscal Year 2020 were $638,968 for meter reading services and $264,376 for new water meters.

B. Contract for Biosolids Treatment with Philadelphia Biosolids Services, LLC

In 2008, the City entered into a long-term contract and lease with the Philadelphia Municipal Authority (the "PMA") for the PMA to operate the Water Department's existing Biosolids Recycling Center (the "BRC"). The PMA and Philadelphia Biosolids Services, LLC ("PBS") entered into a Service Agreement (the "PBS Service Contract"), pursuant to which PBS designed and built, and currently operates, a facility at the BRC to heat dry and dispose of biosolids captured during wastewater treatment. The PMA is required to make annual payments to PBS for operating the BRC. Pursuant to a Service Agreement between the PMA and the City (the "City Service Contract"), the City assumed all of PMA's obligations under the PBS Service Contract. The obligations under the City Service Contract constitute operating expenses of the Water Department. In Fiscal Years 2020 and 2021, the City paid to PMA, from revenues generated by the Water Department, $20,157,471 and $24,950,810, respectively. The City Service Contract contains adjusters for the Consumer Price Index, Producer Price Index, and fluctuations in fuel prices, among others; thus, expenditures under the City Service Contract may vary over time. The Biosolids Service Contract expires on February 10, 2032 and contains the possibility of a five-year renewal term at the option of the City.

IV. OTHER INFORMATION (continued)

10. LONG TERM AGREEMENTS (continued)

C. Northeast Water Pollution Control Plant Digester Gas Cogeneration Facility

In 2011, the City entered into a long-term contract and lease with the PMA for the PMA to arrange the construction, financing, maintenance, and sublease of a digester gas cogeneration facility at the Northeast Water Pollution Control Plant. The PMA entered into a lease (the "Lease") with BAL Green Biogas I, LLC, a special purpose entity of Bank of America (the "Lessor"), which requires the PMA to make certain lease payments to the Lessor. Pursuant to a sublease dated December 23, 2011 (the "Sublease"), the City assumed all of the PMA's obligations under the Lease. The obligations under this contract constitute operating expenses of the Water Department. In Fiscal Year 2020 and Fiscal Year 2021, the City paid to the Lessor from revenues generated from the Water Department, $4,573,041 and $6,103,316 respectively. The Sublease expires on September 25, 2029, unless renewed by PMA for an additional term of eighteen months.

D. Advanced Meter Reading Infrastructure

In February 2019, the City, through PMA, entered into a contract with Sensus USA Inc. ("Sensus") for the delivery of an advanced metering infrastructure ("AMI") system for water meter reading, including installation, operation, and maintenance of the AMI system. The transition from AMR to Sensus was completed in September 2019, and Sensus has assumed the meter reading services formerly provided by ITRON. The installation of the AMI system and communications network was completed on February 12, 2020. The deployment phase, during which AMR equipment will be replaced with AMI units, is expected to take approximately 24 months. The deployment phase started in December of 2020. The costs for installation and deployment are included in the Water Capital Improvement Program. After the initial installation and deployment phase, the AMI operations and maintenance term of the contract will begin for a term of 20 years, with the option to renew for additional one-year terms for a period of up to three years. In Fiscal Year 2020, the Water Department paid $1,245,661 for services and $2,808,681 for equipment. In Fiscal Year 2021, the Water Department paid $2,405,609 for purchased equipment and $1,114,609 for services for the advanced metering infrastructure system.

IV. OTHER INFORMATION (continued)

11. RESTRICTED ASSETS

Assets whose use is limited to a specific purpose have been classified as "restricted" in the Statement of Fund Net Position.

Restricted assets as of June 30, 2021, comprised the following:

	(Thousands of Dollars) Cash and Investments	Accrued Interest
Amounts Reserved for:		
Capital Projects	$ 431,282	$ 25
Rate Stabilization	124,660	456
Residual	16,305	16
Sinking Fund	13,064	-
Sinking Fund Reserve	192,960	146
Total	$ 778,271	$ 643

Restricted assets as of June 30, 2020, comprised the following:

	(Thousands of Dollars) Cash and Investments	Accrued Interest
Amounts Reserved for:		
Capital Projects	$ 446,477	$ 824
Rate Stabilization	151,134	743
Residual	16,261	37
Sinking Fund	303	-
Sinking Fund Reserve	194,648	547
Total	$ 808,823	$ 2,151

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Required Supplementary Information

CITY OF PHILADELPHIA WATER DEPARTMENT
BUDGETARY COMPARISON SCHEDULE
Water Operating Fund
For the Fiscal Year Ended June 30, 2021
(Legally Enacted Basis) **(Thousands of Dollars)**

Revenues	Budgeted Amounts			Final Budget to Actual Positive (Negative)
	Original	Final	Actual	
Locally Generated Non-Tax Revenue	$ 697,980	$ 714,789	$ 699,442	$ (15,347)
Revenue from Other Governments	1,000	670	669	(1)
Revenue from Other Funds	113,110	105,079	57,340	(47,739)
Total Revenues	**$ 812,090**	**$ 820,538**	**$ 757,451**	**$ (63,087)**
Expenditures and Encumbrances				
Personal Services	164,149	164,147	147,364	16,783
Pension Contributions	73,541	82,103	85,716	(3,613)
Other Employee Benefits	62,006	62,009	58,251	3,758
Sub-Total Employee Compensation	299,696	308,259	291,331	16,928
Purchase of Services	209,726	209,611	193,159	16,452
Materials and Supplies	54,787	54,787	45,420	9,367
Equipment	6,749	6,749	4,302	2,447
Contributions, Indemnities and Taxes	8,010	8,010	3,038	4,972
Debt Service	203,122	203,122	186,312	16,810
Payments to Other Funds	70,000	70,000	57,881	12,119
Advances and Other Miscellaneous Payments	-	-	-	-
Total Expenditures and Encumbrances	852,090	860,538	781,443	79,095
Operating Surplus (Deficit) for the Year	**$ (40,000)**	**$ (40,000)**	**$ (23,993)**	**$ 16,007**
Fund Balance Available, July 1, 2020	-	-	-	-
Operations in Respect to Prior Fiscal Years				
Commitments Cancelled - Net	40,000	40,000	23,993	**$ (16,007)**
Prior Period Adjustments	-	-	-	-
Adjusted Fund Balance, July 1, 2020	40,000	40,000	23,993	(16,007)
Fund Balance Available, June 30, 2021	**$ -**	**$ -**	**$ -**	**$ -**

(1) Revenue from Other Funds include Services to General and Aviation Fund, Employee Benefits Fund, and Transfer from Rate Stabilization Fund.

City of Philadelphia
Required Supplementary Information
Other Post Employment Benefits (OPEB) and Pension Plans

City of Philadelphia - Schedule of Changes in Net OPEB Liability and Related Ratios *(Amounts in thousands USD)*

	FYE 2020	FYE 2019	FYE 2018	FYE 2017
Total OPEB Liability				
Service Cost (BOY)	93,900	82,400	81,800	89,300
Interest (includes interest on service cost)	69,200	71,900	67,900	56,100
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	18,100	-	56,800	-
Changes of assumptions	75,300	54,000	(147,800)	(105,600)
Benefit payments, including refunds of member contributions	(104,600)	(96,900)	(96,400)	(114,800)
Net change in total OPEB liability	**151,900**	**111,400**	**(37,700)**	**(75,000)**
Total OPEB liability - beginning	1,935,300	1,823,900	1,861,600	1,936,600
Total OPEB liability - ending	**2,087,200**	**1,935,300**	**1,823,900**	**1,861,600**
Plan fiduciary net position				
Contributions - employer	104,600	96,900	96,400	114,800
Contributions - non-employer	-	-	-	-
Contributions - member	-	-	-	-
Net investment income	-	-	-	-
Benefit payments, including refunds of member contributions	(104,600)	(96,900)	(96,400)	(114,800)
Administrative expense	-	-	-	-
Net change in plan fiduciary net position	-	-	-	-
Plan fiduciary net position - beginning	-	-	-	-
Plan fiduciary net position - ending	-	-	-	-
Net OPEB liability - ending	**2,087,200**	**1,935,300**	**1,823,900**	**1,861,600**
Plan fiduciary net position as a percentage of the total OPEB liability	0.00%	0.00%	0.00%	0.00%
Covered-employee payroll	1,921,200	1,842,600	1,805,400	1,744,700
Net OPEB liability as a percentage of covered-employee payroll	108.64%	105.03%	101.02%	106.70%

Note: The schedules of changes in net OPEB liability and related ratios are intended to show information for 10 years. Additional years will be displayed as they become available

City of Philadelphia - Municipal Pension Plan - Schedule of Changes in Net Pension Liability *(Amounts in thousands USD)*

	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015
Total Pension Liability							
Service Cost (MOY)	187,598	190,457	183,756	164,137	157,607	148,370	143,556
Interest (includes interest on service cost)	884,099	871,381	857,349	843,172	823,959	802,450	791,299
Changes of benefit terms	-	-	378	4,065	-	-	-
Differences between expected and actual experience	(2,417)	9,483	11,098	28,937	103,879	151,919	34,910
Changes of assumptions	57,076	-	53,489	106,022	51,441	85,148	48,146
Benefit payments, including refunds of member contributions	(891,445)	(862,198)	(842,469)	(828,266)	(821,495)	(889,343)	(881,465)
Net change in total pension liability	**234,911**	**209,123**	**263,601**	**318,067**	**315,391**	**298,544**	**136,446**
Total Pension liability - beginning	11,983,392	11,774,269	11,510,668	11,192,601	10,877,210	10,578,666	**10,442,220**
Total Pension liability - ending	**12,218,303**	**11,983,392**	**11,774,269**	**11,510,668**	**11,192,601**	**10,877,210**	**10,578,666**
Plan fiduciary net position							
Contributions - employer	788,483	768,720	797,806	781,984	706,237	660,247	577,195
Contributions - member	111,273	111,825	99,180	83,289	73,607	67,055	58,658
Net investment income	1,643,490	87,151	303,736	440,327	566,625	(145,682)	13,838
Benefit payments, including refunds of member contributions	(891,445)	(862,198)	(842,469)	(828,266)	(821,495)	(889,343)	(881,666)
Administrative expense	(9,709)	(10,991)	(11,155)	(10,123)	(8,874)	(8,554)	(10,478)
Net change in plan fiduciary net position	1,642,092	94,507	347,098	467,211	516,100	**(316,277)**	**(242,453)**
Plan fiduciary net position - beginning	5,782,891	5,688,384	5,341,286	4,874,075	4,357,975	4,674,252	**4,916,705**
Plan fiduciary net position - ending	**7,424,983**	**5,782,891**	**5,688,384**	**5,341,286**	**4,874,075**	**4,357,975**	**4,674,252**
Net pension liability - ending	**4,793,320**	**6,200,501**	**6,085,885**	**6,169,382**	**6,318,526**	**6,519,235**	**5,904,414**
Plan fiduciary net position as a percentage of the total pension liability	60.77%	48.26%	48.31%	46.40%	43.55%	40.07%	44.19%
Covered payroll	1,878,374	1,921,217	1,842,555	1,805,400	1,744,728	1,676,549	1,597,849
Net pension liability as a percentage of covered payroll	255.18%	322.74%	330.30%	341.72%	362.15%	388.85%	369.52%

City of Philadelphia Schedule of Collective Contributions (Based on Minimum Municipal Obligations)
Last 10 Fiscal Years
Amounts in Thousands

	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015	FYE 2014	FYE 2013	FYE 2012
Actuarially determined Contribution	673,884	675,751	668,281	661,257	629,620	594,975	556,030	523,368	727,604	534,039
Contributions in Relation to the Actuarially Determined Contribution	788,483	768,721	797,806	781,984	706,237	660,247	577,195	553,179	781,823	555,690
Contribution Deficiency/(Excess)	(114,599)	(92,970)	(129,525)	(120,727)	(76,617)	(65,272)	(21,165)	(29,811)	(54,219)	(21,651)
Covered Payroll	1,878,374	1,921,217	1,842,555	1,805,400	1,744,728	1,676,549	1,597,849	1,495,421	1,429,723	1,372,174
Contributions as a Percentage of Covered Payroll	41.98%	40.01%	43.30%	43.31%	40.48%	39.38%	36.12%	36.99%	54.68%	40.50%

City of Philadelphia Schedule of Collective Contributions (Based on Revenue Recognition Policy)
Last 10 Fiscal Years
Amounts in Thousands

	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015	FYE 2014	FYE 2013	FYE 2012
Actuarially determined Contribution	712,978	704,589	680,808	662,139	629,620	594,975	556,030	523,368	727,604	534,039
Contributions in Relation to the Actuarially Determined Contribution	788,483	768,721	797,806	781,984	706,237	660,247	577,195	553,179	781,823	555,690
Contribution Deficiency/(Excess)	(75,505)	(64,132)	(116,998)	(119,845)	(76,617)	(65,272)	(21,165)	(29,811)	(54,219)	(21,651)
Covered Payroll	1,878,374	1,902,161	1,842,555	1,805,400	1,744,728	1,676,549	1,597,849	1,495,421	1,429,723	1,372,174
Contributions as a Percentage of Covered Payroll	41.98%	40.41%	43.30%	43.31%	40.48%	39.38%	36.12%	36.99%	54.68%	40.50%

City of Philadelphia Schedule of Collective Contributions (Based on Funding Policy)
Last 10 Fiscal Years
Amounts in Thousands

	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015	FYE 2014	FYE 2013	FYE 2012
Actuarially determined Contribution	856,456	839,691	874,706	871,802	881,356	846,283	798,043	823,885	738,010	722,491
Contributions in Relation to the Actuarially Determined Contribution	788,483	768,721	797,806	781,984	706,237	660,247	577,195	553,179	781,823	555,690
Contribution Deficiency/(Excess)	67,973	70,970	76,900	89,818	175,119	186,036	220,847	270,706	(43,813)	166,801
Covered Payroll	1,878,374	1,902,161	1,842,555	1,805,400	1,744,728	1,676,549	1,597,849	1,495,421	1,429,723	1,372,174
Contributions as a Percentage of Covered Payroll	41.98%	40.41%	43.30%	43.31%	40.48%	39.38%	36.12%	36.99%	54.68%	40.50%

Notes to Schedule

Valuation Date	July 1, 2019
Timing	Actuarially determined contribution rates are calculated based on the actuarial valuation two years prior to the beginning of the plan year.

Key Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method	Entry Age
Asset valuation method	Ten-year smoothed market
Amortization method	Gain/Losses are amortized over closed 20-year periods, assumption changes over 15years, benefit changes for actives over 10 year, and benefit changes for inactive members over 1 year, and plan changes mandated by state over 20 years. Under the City's Funding policy, the initial July 1, 1985 unfunded actuarial liability (UAL) is amortized over 34 years ending June 30, 2019. Future Amortization periods follow the MMO funding policy. Under the MMO Funding Policy, the July 1, 2009 unfunded actuarial liability (UAL) was "fresh started", to be amortized over 30 years, ending June 30, 2039. This is level dollar amortization of the UAL. Under the RRP Funding Policy, sales tax revenue and additional member contributions are dedicated to fund the unfunded liability instead of reducing the City's obligation such that this revenue is in addition to the MMO would have been without these additional assets.
Discount rate	7.55%
Amortization growth rate	3.30%
Salary increases	Age based salary scale separated by employee classification
Mortality	RP-2014 Mortality Tables projected from base year of 2006 to 2021 using mortality improvement scale MP-2017

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2021 can be found in the July 1, 2019 actuarial valuation.

Other Supplementary Information

CITY OF PHILADELPHIA WATER DEPARTMENT
BONDED DEBT
WATER AND WASTEWATER REVENUE BONDS
AS OF JUNE 30, 2021

Year End	Principal Requirements	Interest Requirements	Total Debt Service
06/30/2022	$ 89,042,298	$ 83,185,527	$172,227,826
06/30/2023	84,343,182	88,941,751	173,284,933
06/30/2024	66,952,914	89,479,409	156,432,323
06/30/2025	70,011,576	86,555,382	156,566,957
06/30/2026	74,134,251	83,431,355	157,565,606
06/30/2027	77,471,026	80,129,709	157,600,735
06/30/2028	65,891,987	77,199,380	143,091,367
06/30/2029	66,997,224	75,020,319	142,017,542
06/30/2030	65,516,827	72,672,399	138,189,226
06/30/2031	68,465,889	69,796,159	138,262,048
06/30/2032	68,485,629	66,844,142	135,329,771
06/30/2033	58,382,971	64,089,799	122,472,770
06/30/2034	61,033,383	61,444,678	122,478,061
06/30/2035	63,720,000	58,760,669	122,480,669
06/30/2036	66,450,000	56,024,916	122,474,916
06/30/2037	69,240,000	53,234,584	122,474,584
06/30/2038	72,635,000	50,339,914	122,974,914
06/30/2039	75,730,000	47,252,969	122,982,969
06/30/2040	78,950,000	44,023,656	122,973,656
06/30/2041	82,330,000	40,649,063	122,979,063
06/30/2042	83,440,000	37,249,042	120,689,042
06/30/2043	86,870,000	33,824,573	120,694,573
06/30/2044	84,705,000	30,393,212	115,098,212
06/30/2045	77,210,000	27,115,517	104,325,517
06/30/2046	80,475,000	23,853,146	104,328,146
06/30/2047	49,640,000	20,945,125	70,585,125
06/30/2048	52,185,000	18,399,500	70,584,500
06/30/2049	54,880,000	15,711,781	70,591,781
06/30/2050	57,710,000	12,874,256	70,584,256
06/30/2051	60,700,000	9,890,031	70,590,031
06/30/2052	52,050,000	7,046,044	59,096,044
06/30/2053	54,750,000	4,349,675	59,099,675
06/30/2054	38,000,000	2,017,500	40,017,500
06/30/2055	21,350,000	533,750	21,883,750
Total	**$ 2,279,749,157**	**$ 1,593,278,933**	**$ 3,873,028,090**

'(1) Totals may not add due to rounding.

(2) Total Debt Service reflects the impact of a Capitalized Interest account for FY2022 and FY2023

(amounts in thousands)

LINE NO.		YEAR ENDED JUNE 30, 2021		2020		2019
1.	**Total Revenue**	730,451	$	746,678	$	741,546
2a.	Operating Expense	(545,089)		(543,677)		(522,415)
2b.	Liquidated Encumbrances (commitments cancelled)	23,993		26,861		30,421
2c.	**Net Operating Expenses**	**(521,096)**		**(516,816)**		**(491,994)**
3.	Transfer (To) From Rate Stabilization Fund	27,000		33,083		4,321
4.	**Net Revenues**	**236,355**		**262,945**		**253,873**
5.	Revenue Bonds Outstanding	(186,178)		(206,195)		(190,869)
6.	Transfer to Escrow Account to Redeem Bonds	-		-		-
6a	Other (Adjustment between Debt Service Payments to Sinking Fund, Revenue Bond Payments, LOC expenses and Net Operating Expenses due to timing differences)	(134)		(198)		(39)
7.	Pennvest Loan	-		-		-
8.	**Total Debt Service**	**(186,312)**		**(206,392)**		**(190,908)**
9.	**Net Revenue after Debt Service**	**50,043**		**56,553**		**62,965**
10.	Transfer to General Fund	-		-		-
11.	Transfer to Capital Fund	(27,833)		(26,553)		(24,879)
12.	Transfer to Residual Fund	(22,210)		(30,000)		(38,086)
13.	**Total Transfers**	**(50,043)**		**(56,553)**		**(62,965)**
14.	**Net Operating Balance for Current Year**	**$ -**	**$**	**-**	**$**	**-**

The rate covenant contained in the General Ordinance requires the City to establish rates and charges for the use of the Water and Wastewater Systems to yield Net Revenues, as defined as defined therein, in each fiscal year sufficient to meet three coverage tests:

Senior Debt Service Coverage: Net Revenues must equal at least 120% of the Debt Service Requirements payable in such fiscal year (excluding debt service due on any Subordinated Bonds).

90% Test Coverage: Net Revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such fiscal year) must equal at least equal to 90% of the Debt Service Requirements (excluding debt service on any Subordinated Bonds) payable in such fiscal year.

Total Payments Coverage: Net Revenues must equal at least 100% of : (i) the Debt Service Requirements (including Debt Service Requirements in respect of Subordinated Bonds) payable is such fiscal year; (ii) amounts required to be deposited into the Debt Reserve Account during such fiscal year; (iii) debt service on all General Obligations Bonds issued for the Water and Wastewater Systems payable is such fiscal year; (iv) debt service 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 rates, rents, fees, and charges at least annually.

Senior Debt Service Coverage

	2021	2020	2019
Line 4	**$ 236,355**	**$ 262,945**	**$ 253,873**
/ Line 5	**$ 186,178**	**$ 206,195**	**$ 190,869**
	1.27	**1.28**	**1.33**

90% Test Coverage

	2021	2020	2019
Line 4 - Line 3	**$ 209,355**	**$ 229,862**	**$ 249,552**
/ Line 5	**$ 186,178**	**$ 206,195**	**$ 190,869**
	1.12	**1.11**	**1.31**

Total Payments Coverage

	2020	2019	2018
Line 4	**$ 236,355**	**$ 262,945**	**$ 253,873**
/ Line 5 + Line 11	**$ 214,011**	**$ 232,748**	**$ 215,748**
	1.10	**1.13**	**1.18**

CITY OF PHILADELPHIA WATER DEPARTMENT
HISTORICAL OPERATING RESULTS FOR FISCAL
YEARS ENDED JUNE 30, 2021, 2020, AND 2019

(Thousands of Dollars)

LINE NO.		FY21	FY20	FY19
1	**Operating Revenues:**			
2	Sales to General Customers	$ 632,207	$ 631,378	$ 639,028
3	Wholesale Wastewater Revenues	39,102	39,326	39,515
4	Services to General and Aviation Fund	29,990	35,156	35,245
5	Private Fire Connections	3,937	3,690	3,598
6	Industrial Sewer Surcharge	5,024	4,957	4,699
7	Other Operating Revenue	8,673	6,596	8,130
8	Operating Grants	669	860	698
9	**Total Operating Revenue**	**719,602**	**721,963**	**730,913**
10	**Non-Operating Revenues**			
11	Interest Earnings on Investments (1)	(82)	3,257	3,725
12	Other Non-Operating Revenues	10,931	21,458	6,908
13	**Total Non-Operating Revenues**	**10,849**	**24,715**	**10,633**
14	**Total Revenues (2)**	**$ 730,451**	**$ 746,678**	**$ 741,546**
15	**Operating Expenses (3)**	**$ 545,089**	**$ 543,677**	**$ 522,415**
16	Less: Liquidated Encumbrances (Commitments Cancelled which reduces operating expenses) (4)	23,993	26,861	30,421
17	**Net Operating Expenses**	**$ 521,096**	**$ 516,816**	**$ 491,994**
18	**Adjustment: Debt Service and Net Operating Expenses due to timing differences**	**$ -**	**$ -**	**$ -**
19	**Excess of Total Operating Revenues over Net Operating Expenses (*Line 9 - Line 17*)**	**198,506**	**205,147**	**238,919**
20	**Excess of Total Revenues over Net Operating Expenses (*Line 14 - Line* 17)**	**$ 209,355**	**$ 229,862**	**$ 249,552**
21	**Interest Expense:**			
22	Revenue Bonds	$ 98,341	$ 100,822	$ 88,314
23	**Total Interest Expense**	**98,341**	**100,822**	**88,314**
24	**Excess of Total Revenues over Net Operating and Interest Expenses (*Line 20 - Line 23*)**	**111,014**	**129,040**	**161,238**
25	Add: Unencumbered Funds Available for Appropriation at Beginning of Fiscal Year	-	-	-
26	Add: Debt Service Payments to Sinking Fund, Revenue Bond Payments, LOC expenses and Net Operating Expenses due to timing differences	(134)	(198)	(39)
27	Deduct: Principal Paid on Bonded Indebtedness During Fiscal Year	87,837	105,372	102,555
28	Deduct: Transfer to Escrow Account to Redeem Bonds	-	-	-
29	**Net Unapplied Revenues (Line 24 + Line 25 + Line 26- Line 27 - Line 28)**	**23,043**	**23,470**	**58,644**
30	Deduct: Funds Transferred to Residual Fund (Further Transfer to Capital Account)	22,210	30,000	38,086
31	Deduct: Funds Transferred to Capital Account (Required Transfer of 1% NPPE)	27,833	26,553	24,879
32	Transfer (TO)/FROM The Rate Stabilization Fund	$ 27,000	$ 33,083	$ 4,321
33	**Debt Service Coverage Ratio:**			
34	Senior Debt Service Coverage: Net Revenues (5)/Revenue Bond Debt Service (Line 14-Line17+Line32)/ (Line23+27)	1.27	1.28	1.33
36	90% Test Coverage : Net Revenues (5) excluding Transfer from Rate Stabilization Fund/Revenue Bond Debt Service (Line 14-Line 17)/(Line 23+Line 27)	1.12	1.11	1.31
35	Total Payments Coverage: Net Revenues (5)/Total Debt Service and Other Transfers (Line 14-Line17+Line32)/ (Line23+Line27+Line31)	1.10	1.13	1.18

1) Only includes interest earnings credited to the Revenue Fund pursuant to the GBO

2) Calculated to include Project Revenues, as defined in the GBO, plus interest earnings from line 10

3) Operating Expenses excludes, pursuant to the GBO, depreciation, amortization, interest and sinking fund charges

4) Commitments cancelled represent the liquidation of encumbrances and offset operating expenses. An encumbrance is an expense that is anticipated to be charged to the Water Fund.

5) As defined in GBO

CITY OF PHILADELPHIA WATER DEPARTMENT
WHOLESALE WATER AND WASTEWATER
CUSTOMER REVENUES AND CONTRACT TERMS
FOR THE FISCAL YEAR ENDED JUNE 30, 2021

		Total Revenue	% Total Revenue *	Contract End Date	COA % **
Wastewater					
Bucks County Water & Sewer Authority (BCWSA)	$	9,047,916	1.19%	3/31/2038	N/A
BCWSA - Springfield Township (1) (2)	$	2,306,429	0.30%	6/30/2023	0.79%
BCWSA - Bensalem (1)	$	1,363,835	0.18%	6/30/2023	N/A
BCWSA Total	**$**	**12,718,180**	**1.68%**		**0.79%**
Delcora (3)	$	9,415,281	1.24%	4/1/2028	9.44%
Aqua Pennsylvania Wastewater, Inc. (4)	$	4,437,076	0.58%	6/30/2025	2.43%
Lower Southampton Township	$	4,071,888	0.54%	6/30/2024	0.96%
Upper Darby Township	$	3,121,364	0.41%	8/8/2023	N/A
Lower Merion Township (5)	$	2,731,477	0.36%	N/A	N/A
Abington Township	$	1,576,223	0.21%	6/30/2023	0.58%
Lower Moreland Township	$	1,030,403	0.14%	6/30/2025	0.36%
Wastewater Total	**$**	**39,101,892**	**5.15%**		**14.56%**
Water					
Aqua Pennsylvania	$	4,181,076.78	0.55%	3/1/2026	N/A
Water Total	**$**	**4,181,076.78**	**0.55%**		
Total Wholesale Revenues	**$**	**43,282,970.43**	**5.70%**		

Note: The Water Department includes capital charges within operation and maintenance charges for all customers except Bensalem, Lower Merion, and Upper Darby.

* The percentage of Total Revenue is the yearly revenue received by the Township divided by the total yearly revenue of the Water Operating Fund. The FY 2021 total is $758,587,468.

** Consent Order Agreement % (COA) is the Township's share of expenses for the Long Term Control Plan to mitigate combined sewer overflows (CSOs).

(1) Bucks County Water and Sewer Authority purchased the wastewater collection and disposal system of Springfield Township in December 2015 and purchased the wastewater collection system of Bensalem in September 1999.

(2) The COA% reflects the total amount for Wyndmoor and Erdenheim combined.

(3) Delcora allocated capital is based on assets placed in service on or after July 4, 2011.

(4) Cheltenham Township sold its sewer system to Aqua PA Wastewater, Inc., an Essential Utilities Company ("Aqua PA Wastewater") in December of 2019. The Water Department's contract with the township was transferred to Aqua PA Wastewater in connection with the sale.

(5) The contract for Lower Merion Township does not contain an end date.

CITY OF PHILADELPHIA WATER DEPARTMENT
TOP 10 CUSTOMERS
FOR THE FISCAL YEAR ENDED JUNE 30, 2021

	Customer	Revenue ($)	% Total Revenue **
1	City of Philadelphia*	$ 20,961,278	2.76%
2	Philadelphia Housing Authority	13,389,342	1.77%
3	Vicinity Energy Philadelphia***	7,478,188	0.99%
4	University of Pennsylvania	7,200,884	0.95%
5	School District of Philadelphia	5,483,430	0.72%
6	AdvanSix Inc [1]	5,474,657	0.72%
7	SEPTA	5,205,550	0.69%
8	Federal Government	5,179,388	0.68%
9	Temple University	3,832,858	0.51%
10	University of Pennsylvania Health System	3,463,065	0.46%
	TOTALS****	**$ 77,668,639**	**10.24%**

*The total above for the City of Philadelphia includes, among others, charges for water, wastewater and stormwater services as follows: (i) $16,910,529.29 – General Fund and (ii) 4,050,748.52 – Aviation Fund.

** The % of Total Revenue is calculated using the yearly revenue received by the customer divided by the total yearly revenue of the Water Operating Fund. The total revenue for Fiscal Year 2021 was $758,587,468.

*** Previously known as Veolia Energy Philadelphia

**** Totals may not add due to rounding.

CITY OF PHILADELPHIA WATER DEPARTMENT
INCENTIVE AND ASSISTANCE PROGRAMS
FOR THE FISCAL YEARS ENDED JUNE 30, 2021, 2020, 2019, 2018, 2017, AND 2016

Program	Program Type	FY2021	FY2020	FY 2019	FY 2018	FY 2017	FY 2016
SMIP(1) and GARP(2) (3)	Operating Expense	$ 8,419,131	$ 18,216,460	$ 30,433,976	$ 21,484,429	$ 18,354,069	$ 9,067,109
Phase in Program (CAP)(4)	Bill Reduction	1,405,875	1,722,703	2,003,238	2,011,096	2,531,367	3,282,654
Stormwater Credits(4)	Bill Reduction	19,699,865	18,740,626	17,988,320	16,038,856	13,819,758	12,864,862
Community Gardens	Bill Reduction	437	1,478	9,966	14,320	-	-
Tiered Assistance Program (TAP)(5)	Bill Reduction	9,464,471	8,934,216	8,992,124	2,927,221	-	-
Total		**$38,989,779**	**$47,615,483**	**$59,427,624**	**$42,475,922**	**$34,705,194**	**$25,214,625**

(*) Budgeted.
(1) Stormwater Management Incentives Program.
(2) Grant and Greened Acres Retrofit Program.
(3) SMIP and GARP were partially funded with grants.
(4) Amounts are credits against certain customers' bills.
(5)TAP is a low-income assistance program commenced in July of 2017. It will reduce customers' bills and result in a reduction in revenue for the Water Department.

CITY OF PHILADELPHIA WATER DEPARTMENT
RECONCILIATION OF LEGALLY ENACTED AND GAAP BASIS OPERATING REVENUES AND EXPENSES
FOR THE YEAR ENDED JUNE 30, 2021

(Thousands of Dollars)

Legal Basis of Accounting Revenues		
Legal Basis Revenues	$	757,451
GAAP Adjustments		
Reverse Fiscal Year 2020 Accounts Receivable Accrual		(40,147)
Record Fiscal Year 2021 Accounts Receivable Accrual		35,432
Accounts Receivable Adjustment		(470)
Allowance for Doubtful Accounts Adjustment		(6,426)
Reclassification of Operating Fund - Interest Income Only to Nonoperating Revenue		82
Reclassification of Miscellaneous Revenue		(350)
Reclassification of Transfers In (DSRF)		(27,000)
Total GAAP Adjustments		(38,879)
Total GAAP Basis Operating Revenues	**$**	**718,572**
Legal Basis of Accounting Expenses		
Legal Basis Expenses, Transfers and Debt Service	$	781,444
GAAP Adjustments		
Expense in Fiscal Year 2021, included in Fiscal Year 2020 for Legal Basis		55,898
Encumbrances in Fiscal Year 2021, included in Fiscal Year 2020 for Legal Basis		(113,319)
Depreciation on Capital Assets, not included for Legal Basis		134,748
Payments among Water Department Funds, netted for GAAP Basis		(57,881)
Accrual of Probable Indemnities and Worker's Compensation Expenses		2,521
Reclassification of Transfers Out to Nonoperating Expenses		(32,169)
Allocation of Interfund Activity - Payment to General Fund		7,839
Allocation of Accrued Expenses		(12,133)
Change in Inventory Balance as of June 30, 2021		(2,950)
Elimination of Legal Basis Adjustments		281
Net Pension Expense, included in GAAP Basis		(29,860)
OPEB Expense, included in GAAP Basis		4,436
Removal of Debt Service Principal Payments and Transfers to the Escrow Account, Included in Legal Basis		(186,312)
Net Adjustments from Capitalization of Capital Assets		(9,313)
Removal of Legal Basis Compensated Absences Expense and Increase in Compensated Absence Liability		2,418
Debt Service Expense from Sinking Reserve not included in Legal Basis		105
Amortization of Prepaid Surety Bond Insurance		61
Total GAAP Adjustments		(235,631)
Total GAAP Basis Operating Expenses	**$**	**545,813**

APPENDIX II-A

SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS

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APPENDIX II-A

SUMMARIES OF CERTAIN AUTHORIZATIONS FOR THE BONDS

The following are summaries of certain provisions of The First Class City Revenue Bond Act (the "Act"), the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended (the "General Ordinance") and as supplemented by the Twenty-Second Supplemental Ordinance to the General Ordinance approved by the Mayor on May 15, 2019 (the "Twenty-Second Supplemental Ordinance" or the "Authorizing Supplemental Ordinance"). The summaries are not, and should not be regarded as, complete statements of the provisions of these documents and legislation. Reference is made to the Act, the General Ordinance and the Authorizing Supplemental Ordinance, copies of which are available from the Office of the Director of Finance, 1300 Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102, for the complete terms and provisions thereof.

THE FIRST CLASS CITY REVENUE BOND ACT
(Act 234 of the General Assembly of the Commonwealth, approved October 18, 1972, *P.L. 955; 53 P.S. §§ 15901-15924*)

The City of Philadelphia Water and Wastewater Revenue Bonds, Series 2022C (the "Series 2022C Bonds") are being issued under the terms of the Act, the General Ordinance and pursuant to the Authorizing Supplemental Ordinance. The following summarizes the terms of the Act. All capitalized terms used in the following summary of the Act are defined as in the Act and may be differently referenced in other portions of this Official Statement.

General Authorization; Definition of Project; Bonds to be Special Obligations

The Act is intended to provide a comprehensive authorization to the City of Philadelphia (the "City") and any other Pennsylvania cities of the first class to issue revenue bonds ("Bonds") to finance various types of projects.

The Act defines "Project" to include, among other things, any buildings, structures, facilities or improvements of a public nature, the related land, rights or leasehold estates in land and the related furnishings, machinery, apparatus or equipment of a capital nature, which the City is authorized to own, construct, acquire, improve, lease, operate, maintain or support; any item of construction, acquisition or extraordinary maintenance or repair thereof, the City's share of the cost of any of the foregoing or any combination thereof undertaken jointly with others; and any combination of any of or all of the foregoing or any undivided portion of the cost of any of the foregoing as may be designated as a "Project" by the City for financing purposes and in respect of which the City may reasonably be expected to receive Project Revenues.

Bonds issued under the Act are required to be payable solely from Project Revenues and to be secured solely by such revenues and by any reserve funds which may be created or funded in connection with the Bonds. The Bonds are not permitted to pledge the credit or taxing power of the City to create any debt or charge against the tax or general revenues of the City, or create any lien against any of the City property other than the Project Revenues pledged therefore and reserve Funds established in respect of the Bonds. The Bonds do not constitute a debt of the City, and are excluded from the calculation of the City's debt-incurring capacity under the Pennsylvania Constitution.

Estimates of Future Revenues

To establish that Project Revenues will be sufficient to amortize all Bonds outstanding, the Act requires a finding to be made in the ordinance authorizing the issuance of the Bonds that the pledged Project Revenues will be sufficient to pay any prior parity charges thereon and the principal of and interest on the Bonds. This finding is to be based on a report of the chief fiscal officer of the City filed with the City Council and supported by appropriate schedules and summaries. The report of the chief fiscal officer of the City may be based on a report of consulting engineers employed by the City to evaluate the project.

For the purpose of estimating future Project Revenues, the Act provides that only the following shall be included: (i) those rents, rates, tolls or charges to the general public which, under existing authorizations, will be reasonably collectible in such year under the schedule or rate of rents, rates or charges which are or will be in effect during such year in accordance with such ordinance, resolutions or rate schedule or which may be imposed by administrative action without further legislation; (ii) those bulk payments which may be imposed under subsisting legislation or which are provided under subsisting agreements or which are the subject of an expression of intent by the prospective obligor deemed reliable by the chief fiscal officer of the City; and (iii) those governmental subsidies or payments which, under subsisting legislation, are subject to reasonably precise calculation and, unless stated in such legislation or authorization to be of an annually or more frequently recurring nature, are payable in such year.

Detail of Bonds and City Covenants

The Act provides that the ordinance authorizing the issuance of the Bonds shall fix the aggregate amounts of the Bonds to be issued from time to time and determine, or designate officers of the City to determine, the form and details of the Bonds. The City may include in its Bond ordinance various covenants with Bondholders, including covenants governing the imposition, collection and disbursement of Project Revenues, Project operation and maintenance, the establishment, segregation, maintenance, custody, investment and disbursement of sinking funds and reserves, the issuance of additional priority or parity bonds, the redemption of the Bonds and such other provisions as the City deems necessary or desirable in the interest or for the protection of the City or of such Bondholders. Under the Act the covenants, terms and provisions of the Bond ordinance made for the benefit of Bondholders constitute contractual obligations of the City, but such covenants (within limitations, if any, fixed by the Bond ordinance) may be modified by agreement with a majority in interest of the Bondholders or such larger portion thereof as may be provided in the Bond ordinance.

Sinking Fund

The Act requires that the Bond ordinance shall provide for the establishment of a sinking fund for the payment of the principal of and interest (including Qualified Swap payments) on the Bonds. Payment into such sinking fund shall be made in annual or more frequent installments and shall be sufficient to pay or accumulate for payment all principal of and interest on the Bonds for which the sinking fund is established as and when the same shall become due and payable. The sinking fund shall be managed by the chief fiscal officer of the City and moneys therein to the extent not currently required, shall be invested, subject to limitations established by the Bond ordinance and the Act. Interest and profits from investment of moneys in the sinking fund shall be added to such fund and may be applied in reduction of or to complete required deposits into the sinking fund. Excess moneys in the sinking fund shall be repaid to the City for its general purposes or may be applied as may be provided in the Bond ordinance. All moneys deposited in the sinking fund are subjected to a perfected security interest for the benefit of the holders of the Bonds, for which the fund is established, until property disbursed. This perfected security interest also applies, under the terms of the Act, to moneys in the sinking fund reserve created as part of the sinking fund by the General Ordinance.

Refunding

Any outstanding Bonds issued under the Act or other bonds issued for purposes for which Bonds are issuable under the Act, whether issued before or after the effective date of the Act, may from time to time be refunded by Bonds issued under the Act and are subject to the same protections and provisions required for the issuance of an original issue of Bonds. The last stated maturity date of the refunding Bonds may not be later than ten years after the last stated maturity date of the Bonds to be refunded. If outstanding Bonds are refunded in advance of their maturity or redemption date, the principal thereof and interest thereon to payment or redemption date, and redemption premium payable, if any, will no longer be deemed to be outstanding obligations when the City shall have deposited with a bank, bank and trust company or trust company, funds irrevocably pledged to the purpose, which are represented by demand deposits, interest-bearing time accounts, savings deposits, certificates of deposit (insured or secured as public funds) or specified obligations of the United States or of the Commonwealth of Pennsylvania sufficient to effect such redemption or payment or, if interest on the deposited funds to the time of disbursement is also pledged, sufficient, together with such interest, for such purpose and, in the case of redemption, shall have duly called the Bonds for redemption or given irrevocable instructions to give notice of such call.

Validity of Proceedings; Suits and Limitations Thereon

Prior to the delivery of any Bonds, the City is required to file with the Court of Common Pleas of Philadelphia County (the "Court") a transcript of the proceedings authorizing the issuance of the Bonds. If no action is brought on or before the twentieth day following the date of recording of the transcript, or when the proceedings have been approved finally by the Court, then notwithstanding any defect or error in such proceedings, the validity of the proceedings, the City's right to issue the Bonds, the lawful nature of the purpose for which the Bonds are issued, and the validity and enforceability of the Bonds in accordance with their terms may not thereafter be inquired into judicially, in equity, at law, or by civil or criminal proceedings, or otherwise, either directly or collaterally except where a constitutional question is involved.

Negotiable Instruments

The Act provides that Bonds issued thereunder shall have the qualities and incidents of securities under Article 8 of the Uniform Commercial Code of the Commonwealth and shall be negotiable instruments.

Exemption from State Taxation

The Commonwealth pledges with the holders from time to time of Bonds issued under the Act that such Bonds, and interest thereon, shall at all times be free from taxation within and by the Commonwealth, but this exemption does not extend to underwriting profits or to gift, succession or inheritance taxes or any other taxes not levied directly on the Bonds and the receipt of interest thereon.

Defaults and Remedies

If the City should fail to pay the principal of or interest on any Bond when the same shall be due and payable, the remedy provisions of the Act permit the holder of such Bond, subject to the limitations described below, to recover the amount due in an action in Philadelphia Common Pleas Court; but a judgment rendered in favor of the Bondholder in such an action is collectible only from Pledged Amounts. The holders of 25% or more in aggregate principal amount of the Bonds of such series then outstanding which are in default, whether because of failure of timely payment which is not cured in 30 days, or failure of the City to comply with any other provisions of the Bonds or any Bond ordinance, may appoint a trustee to represent them. On being appointed, the trustee shall be the exclusive representative for the affected

Bondholders and the individual rights of action described above shall no longer be available. The trustee may, and upon written request of the holders of 25% or more in aggregate principal amount of Bonds in default, and on being furnished with indemnity satisfactory to it, shall, take one or more of the following actions, which, if taken, shall preclude similar action, whether previously or subsequently initiated, by individual holders of Bonds; enforce, by proceedings at law or in equity, all rights of the holders of the Bond; bring suit on the Bonds; bring in suit in equity to require the City to make an accounting for all pledged Project Revenues received and to enjoin unlawful action or action in violation of the holders' rights; and, after 30 days' written notice to the City, and subject to any limitations in the Bond ordinance, declare the unpaid principal of the Bonds to be immediately due and payable, together with interest thereon at the rates stated in the Bonds until final payment, and upon the curing of all defaults, to annul such declaration. In any suit, action or proceeding by or on behalf of holders of defaulted Bonds, trustee fees and expenses, including operating costs of a project and reasonable counsel fees, shall constitute taxable costs, and all such costs and expenses allowed by the Court shall be deemed additional principal due on the Bonds and shall be paid in full from any recovery prior to any distribution to the holders of the Bonds. The General Ordinance limits any such recovery to Pledged Amounts. The trustee shall make distribution of any sums so collected in accordance with the Act.

Refunding with General Obligation Bonds

Upon certification by the City's chief fiscal officer that Project Revenues pledged for the payment of Bonds have become insufficient to meet the requirements of the ordinance or ordinances under which the Bonds were issued, the City Council is empowered, but not required, subject to applicable Pennsylvania constitutional debt limitations, to authorize the issuance and sale of general obligation refunding bonds of the City, without limitation as to rate of interest and in such principal amount (subject to the aforesaid limitations on indebtedness) as may be required, together with other available funds, to pay and redeem such Bonds including principal, interest to the date fixed for redemption or payment and premium, whether or not the principal of or interest on the refunding bonds shall exceed the principal of or interest on the bonds to be refunded.

THE RESTATED GENERAL WATER AND WASTEWATER REVENUE BOND ORDINANCE OF 1989

(Ordinance of the City Council approved June 24, 1993 - Bill No. 544)

The following is a summary of certain terms defined in the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended (the "General Ordinance"), used in this Official Statement. Reference should be made to the General Ordinance for a full and complete statement of its terms and any capitalized terms used herein but not otherwise defined. The Series 2022C Bonds are being issued under the terms of the General Ordinance, as supplemented by the Authorizing Supplemental Ordinance. The Authorizing Supplemental Ordinance (see below) sets forth the specific terms of the Series 2022C Bonds. All capitalized terms used in the following summary of the General Ordinance are defined as in the General Ordinance and may be differently referenced in other portions of this Official Statement.

Certain Definitions[*]

Accreted Value means, with respect to Capital Appreciation Bonds, the amount to which, as of any specified time, the Original Value of any such Bond has been increased by accretion, all as may be provided in an applicable Supplemental Ordinance.

Act means The First Class City Revenue Bond Act, approved October 18, 1972 (Act No. 234, 53 P.S. §15901 to 15924), as from time to time amended.

Bond or *Bonds* means, upon and after issuance of the first series of bonds under the General Ordinance, if and to the extent Outstanding at any time, (i) the Existing Bonds and (ii) all series of bonds authorized and issued under one or more Supplemental Ordinances amending and supplementing the General Ordinance.

Bond Committee means the Mayor, City Controller and City Solicitor or a majority thereof.

Bond Counsel means a firm of nationally recognized bond counsel selected by the City.

Bondholder or *Holder* means any registered owner of Bonds or holder of Bonds issued in coupon form at the time Outstanding.

Capital Account means the Capital Account within the Construction Fund.

Capital Account Deposit Amount means an amount equal to one percent (1%) of the depreciated value of property, plant and equipment of the System or such greater amount as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make renewals, replacements and improvements in order to maintain adequate water and wastewater service to the areas served by the System.

Capital Appreciation Bonds means any Bonds issued under the General Ordinance which do not pay interest either until maturity or until a specified date prior to maturity, but whose Original Value increases periodically by accretion to a final Maturity Value.

Charges Account means the Charges Account within the Sinking Fund established to provide for the payment of fees under any Credit Facility to the extent payment of such fees are not otherwise provided.

City Controller means the head of the City's auditing department as provided by the Philadelphia Home Rule Charter.

City Solicitor means the head of the City's law department as provided by the Philadelphia Home Rule Charter.

Code means the Internal Revenue Code of 1986, as amended.

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[*] See APPENDIX II-B – "Twenty-First Supplemental Ordinance" for definitional modifications and additions contained in the Springing Amendments set forth in the Twenty-First Supplemental Ordinance (Bill No. 171110-A) approved on April 24, 2018 (the "Twenty-First Supplemental Ordinance"). The Springing Amendments will not become effective until at least 67% of Holders of outstanding Bonds have consented to such amendments. The consent of the holders of 67% of Water and Wastewater Bonds outstanding is expected to be satisfied upon the issuance of the Series 2022C Bonds, thereby rendering the Springing Amendments effective upon such date of issuance.

Construction Fund means the Construction Fund established pursuant to the General Ordinance.

Consulting Engineer means a nationally recognized Independent registered consulting engineer or a nationally recognized Independent firm of registered consulting engineers, in either case having experience in the design and analysis of the operation of water and wastewater systems of the magnitude and scope of the System.

Credit Facility[*] means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution, with a current long term rating (or whose obligations thereunder are guaranteed by a financial institution with a long term rating) from Moody's and S&P not lower than the credit rating of any Series of Bonds which has no Credit Facility, to provide support for a Series of Bonds or for any issue of Subordinated Bonds, and shall include any Substitute Credit Facility.

Debt Reserve Account means the Debt Reserve Account within the Sinking Fund established pursuant to the General Ordinance.

Debt Reserve Facility means a surety bond, insurance policy or irrevocable letter of credit deposited to the Debt Reserve Account pursuant to the provisions of the General Ordinance.

Debt Reserve Requirement[†] means (i) with respect to all Bonds outstanding (regardless whether interest thereon may be excluded from the gross income of the holder thereof for federal income tax purposes) (a) whose Debt Service Requirements are payable from the Sinking Fund (i.e., excluding Subordinated Bonds) and (b) that are of a Series for which the City has not created a Series Debt Reserve Subaccount, an amount equal to the greatest amount of Debt Service Requirements on such Bonds payable in any one Fiscal Year (except that such Debt Service Requirements will be computed as if any Qualified Swap did not exist and the Debt Service Requirements attributable to any Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Supplemental Ordinance or Determination for such Bonds) determined as of any particular date, and (ii) with respect to the amount to be deposited in the Debt Reserve Account, pursuant to the General Ordinance, in connection with the issuance of such a Series of Bonds, the lesser of (x) the amount necessary to comply clause (i) and (y) the maximum amount permitted to be financed with proceeds of Bonds permitted by Section 148(d)(1) of the Code (or any successor provision).

Debt Service Account means the Debt Service Account within the Sinking Fund established pursuant to the General Ordinance.

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[*] See APPENDIX II-B – "Twenty-First Supplemental Ordinance" for definitional modifications and additions contained in the Springing Amendments, including modifications to the definition of Credit Facility.

[†] This definition was amended pursuant to the Twenty-First Supplemental Ordinance upon its enactment.

The Springing Amendments include provisions that will allow the City to establish a Series Debt Reserve Subaccount and a related Series Debt Reserve Requirement. See APPENDIX II-B – "Twenty-First Supplemental Ordinance" attached to this Official Statement.

Debt Service Requirements[*], with reference to a specified period, means:

(a) amounts required to be paid into any mandatory sinking fund established for the benefit of Bonds during the period;

(b) amounts needed to pay the principal or redemption price of Bonds maturing during the period and not to be redeemed at or prior to maturity through any sinking fund established for the benefit of Bonds;

(c) interest payable on Bonds during the period, with adjustment for capitalized interest or redemption through any sinking fund established for the benefit of Bonds; and

(d) all net amounts, if any, due and payable by the City under a Qualified Swap during such period.

For purposes of estimating Debt Service Requirements for any future period, (i) any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond tendered for payment and cancellation before its stated maturity date shall be deemed to accrue on the date required for payment pursuant to such tender; and (ii) Debt Service Requirements on Bonds for which the City has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed or variable rate on the Qualified Swap or, if applicable and if greater than such stated rate, the applicable rate for any Bonds issued in connection with the Qualified Swap adjusted, in the case of a variable rate obligation, as provided in the General Ordinance.

The calculation of Debt Service Requirements with respect to Variable Rate Bonds shall be subject to adjustment as permitted by the General Ordinance.

Debt Service Withdrawal means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of principal or redemption price of or interest on Bonds or toward the elimination of a deficiency in any reserve fund established for the benefit of Bonds.

Determination means a determination by the Bond Committee regarding certain matters relating to the issuance of a Series of Bonds, made pursuant to the General Ordinance or the Supplemental Ordinance providing for the issuance of such Series of Bonds.

Director of Finance means the chief financial officer of the City as established by the Philadelphia Home Rule Charter.

Effective Date means when (but only when) all Prior Bonds issued under the Prior Ordinance have been paid or defeased as set forth in Section 10 of the Act.

Exchange Agreement means, to the extent from time to time permitted by applicable law, any interest exchange agreement, interest rate swap agreement, currency swap agreement or other contract or agreement, other than a Qualified Swap, authorized, recognized and approved by a Supplemental Ordinance or Determination as an Exchange Agreement and providing for (i) certain payments by the City from the Residual Fund and (ii) payments by an entity whose senior long term debt obligations, other senior

[*] See APPENDIX II-B – "Twenty-First Supplemental Ordinance" for definitional modifications and additions contained in the Springing Amendments, including modifications to the definition of Debt Service Requirements.

unsecured long term obligations or claims paying ability, or whose obligations under an Exchange Agreement are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability are rated not less than "A3" by Moody's, "A-" by S&P or "A-" by Fitch, or the equivalent thereof by any successor thereto as of the date the Exchange Agreement is entered into; which payments by the City and counterparty are calculated by reference to fixed or variable rates and constituting a financial accommodation between the City and such counterparty.

Existing Bonds means the bonds originally issued under the Prior Ordinance other than Prior Bonds, which Existing Bonds shall be specified in a certificate of the Director of Finance on the Effective Date and thereafter shall be secured by the General Ordinance.

Financial Consultant means a firm of investment bankers, a financial consulting firm, a firm of certified public accountants or any other firm which is qualified to calculate amounts required to be rebated to the United States pursuant to Section 148(f) of the Code.

Fiscal Agent means a bank or other entity designated as such pursuant to the General Ordinance or its successor.

Fiscal Year means the fiscal year of the City.

Fitch means Fitch Ratings and any successor thereto.

General Obligation Bonds means the general obligation bonds of the City issued and outstanding from time to time to finance improvements to the System and adjudged, pursuant to the Constitution and laws of the Commonwealth of Pennsylvania, to be self-sustaining on the basis of expected Project Revenues.

General Ordinance means the Restated General Water and Wastewater Revenue Bond Ordinance of 1989.

Government Obligations means direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America, including but not limited to interest obligations of the Resolution Funding Corporation or any successor thereto.

Independent means a person who is not a salaried employee or elected or appointed official of the City; provided, however, that the fact that such person is retained regularly by or transacts business with the City shall not make such person an employee within the meaning of this definition.

Initial Deposit means the initial, one time, deposit to be made by the City from any source into the Rate Stabilization Fund upon the establishment of such Rate Stabilization Fund.

Interdepartmental Charges means the proportionate charges for services performed for the Water Department by all officers, departments, boards or commissions of the City which are required by the Philadelphia Home Rule Charter to be included in the computation of operating expenses of the Water Department.

Interim Debt means any bond anticipation notes or other temporary borrowing which the City anticipates permanently financing with Bonds or other long term indebtedness under the General Ordinance or otherwise.

Kroll means Kroll Bond Rating Agency, Inc. and any successor thereto.

Maturity Value with respect to Capital Appreciation Bonds means the amount due on the maturity date.

Moody's means Moody's Investors Service and any successor thereto.

Net Revenues for any period means the Project Revenues collected during such period and deposited into the Revenue Fund plus (x) the amounts, if any, transferred from the Rate Stabilization Fund into the Revenue Fund during, or as of the end of, such period and (y) interest earnings during such period on moneys in any of the funds or accounts established under the General Ordinance to the extent such interest earnings are credited to the Revenue Fund pursuant to the General Ordinance minus the sum of (a) Operating Expenses incurred during such period and (b) the amounts, if any, transferred from the Revenue Fund to the Rate Stabilization Fund during, or as of the end of, such period; provided, however that in determining such Net Revenues the Initial Deposit shall not reduce such Net Revenues.

Operating Expense Withdrawal means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of Operating Expenses.

Operating Expenses for any period means all costs and expenses of the Water Department necessary and appropriate to operate and maintain the System in good operating condition, and shall include, without limitation, salaries and wages, purchases of services by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the System, which is not properly chargeable to property, plant and equipment, pension and welfare plan and worker's compensation requirements, provisions for claims, refunds and uncollectible receivables and for Interdepartmental Charges, all in accordance with generally accepted accounting principles consistently applied, but Operating Expenses shall exclude depreciation, amortization, interest and sinking fund charges.

Option Bond means any Bond which by its terms may be tendered by and at the option of the Holder thereof for payment by the City prior to its stated maturity date or the maturity date of which may be extended by and at the option of the Holder thereof.

Ordinance means the General Ordinance, as amended from time to time in accordance with the provisions of the General Ordinance.

Original Value with respect to Capital Appreciation Bonds means the principal amount paid by the initial purchasers on the date of original issuance.

Outstanding, when used with reference to Bonds, means, as of any date, all Bonds theretofore or thereupon being authenticated and delivered under the General Ordinance except (i) any Bonds cancelled by the Fiscal Agent at or prior to such date; (ii) Bonds (or portion of Bonds) for the payment or redemption of which moneys, equal to the principal amount, Accreted Value or redemption price thereof, as the case may be, with interest (except to the extent of any Capital Appreciation Bonds) to the date of maturity or redemption date, shall be held in trust under the General Ordinance and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in the General Ordinance or provision satisfactory to the Fiscal Agent shall have been made for the giving of such notice; (iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to the General Ordinance; and (iv) Bonds deemed to have been paid as provided in the General Ordinance.

Philadelphia Home Rule Charter means the Philadelphia Home Rule Charter, as amended or superseded by any new home rule charter, adopted pursuant to authorization of the First Class City Home Rule Act approved April 21, 1949, P.L. 665 §l, *et seq*. (53 P.S. §13101, *et seq*.).

Prior Bonds means the bonds issued under the Prior Ordinance designated as Water and Sewer Revenue Bonds (i) the First Series through Ninth Series, and the Eleventh Series and Twelfth Series, and (ii) to the extent the following bonds are defeased on the Effective Date, the Tenth Series and the Thirteenth Series through Sixteenth Series.

Prior Ordinance means the General Water and Sewer Revenue Bond Ordinance of 1974 approved May 16, 1974, as amended and supplemented from time to time.

Project Revenues means all rents, rates, fees and charges imposed or charged for the connection to, or use or product of or services generated by the System to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, all subsidies or payments payable by Federal, State or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on moneys borrowed to finance costs chargeable to the System, all grants, payments and contributions made in aid or on account of the System exclusive of grants and similar payments and contributions solely in aid of construction and all accounts, contract rights and general intangibles representing the foregoing.

Qualified Escrow Securities means funds which are represented by (a) demand deposits, interest-bearing time accounts, savings deposits or certificates of deposit, but only to the extent such deposits or accounts are fully insured by the Federal Deposit Insurance Corporation or any successor United States governmental agency, or to the extent not insured, fully secured and collateralized by Government Obligations having a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such deposits or accounts, (b) if at the time permitted under the Act, obligations of any state or political subdivision thereof or any agency or instrumentality of such state or political subdivision for which cash, Government Obligations or a combination thereof have been irrevocably pledged to or deposited in a segregated escrow account for the payment when due of principal or redemption price of and interest on such obligations, and any such cash or Government Obligations pledged and deposited are payable as to principal or interest in such amounts and on such dates as may be necessary without reinvestment to provide for the payment when due of the principal or redemption price of and interest on such obligations, and such obligations are rated by any Rating Agency in the highest rating category assigned by each such rating service to obligations of the same type, or (c) noncallable Government Obligations. In each case such funds (i) are subject to withdrawal, maturing or payable at the option of the holder, at or prior to the dates needed for disbursement, provided such deposits or accounts, whether deposited by the City or by such depository, are insured or secured as public deposits with securities having at all times a market value exclusive of accrued interest equal to the principal amount thereof, (ii) are irrevocably pledged for the payment of such obligations and (iii) are sufficient, together with the interest to disbursement date payable with respect thereto, if also pledged, to meet such obligations in full.

Qualified Rebate Fund Securities means either:

(a) Government Obligations; or

(b) rights to receive the principal of or the interest on Government Obligations through (i) direct ownership, as evidenced by physical possession of such Government Obligations or unmatured interest coupons or by registration as to ownership on the books of the issuer or its duly authorized paying agent or transfer agent, or (ii) purchase of certificates or other instruments evidencing an undivided ownership interest in payments of the principal of or interest on Government Obligations.

Qualified Swap or *Swap Agreement* means, with respect to a Series of Bonds, any financial arrangement that (i) is entered into by the City with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) provides that (a) the City shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal to the principal amount of the Outstanding Bonds of such Series, and that such entity shall pay to the City an amount based on the interest accruing on a principal amount initially equal to the same principal amount as such Bonds, at either a variable rate of interest or a fixed rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement or (b) the City shall pay to such entity an amount based on the interest accruing on the principal amount of the Outstanding Bonds of such Series at a variable rate of interest as set forth in the arrangement and that such entity shall pay to the City an amount based on interest accruing on a principal amount equal to the Outstanding Bonds of such Series at an agreed fixed rate (which shall not be the same as the rate on the Bonds) or that one shall pay to the other any net amount due under such arrangement; and (iii) which has been designated in writing to the Fiscal Agent by the City as a Qualified Swap with respect to the Bonds.

Qualified Swap Provider means, with respect to a Series of Bonds, an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, are rated (at the time the subject Qualified Swap is entered into) at least as high as Aa by Moody's, and AA by S&P, or the equivalent thereof by any successor thereto.

Rate Covenant means the rate covenant contained in the General Ordinance.

Rate Stabilization Fund means the Rate Stabilization Fund established pursuant to the General Ordinance.

Rating Agency[*] means Moody's, S&P or Fitch, to the extent that any of such rating services have issued a credit rating on the Bonds or, upon discontinuance of any of such rating services, such other nationally recognized rating service or services if any such rating service has issued a credit rating on the Bonds.

Rebate Bond Year, for purposes of the General Ordinance and in order to facilitate compliance with the arbitrage rebate requirements of the Code, shall mean the period or periods specified in a Supplemental Ordinance or Determination for a Series of Bonds.

Rebate Fund means the Rebate Fund established pursuant to the General Ordinance.

Remarketing Agent means a Remarketing Agent appointed in the manner provided in the applicable Supplemental Ordinance or Determination authorizing the issuance of Variable Rate Bonds.

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[*] See APPENDIX II-B – "Twenty-First Supplemental Ordinance" for definitional modifications and additions contained in the Springing Amendments, including modifications to the definition of Rating Agency.

Remarketing Agreement means an agreement providing for the remarketing of tendered Variable Rate Bonds by a Remarketing Agent, as more fully set forth and defined in the Supplemental Ordinance authorizing any Series of Variable Rate Bonds.

Residual Fund means the Residual Fund established pursuant to the General Ordinance.

Revenue Fund means the Revenue Fund established pursuant to the General Ordinance.

S&P means S & P Global Ratings and any successor thereto.

Series when applied to Bonds means, collectively, all of the Bonds of a given issue authorized by Supplemental Ordinance, as provided in the General Ordinance, and may also mean, if appropriate, a subseries of any Series if, for any reason, the City should determine to divide any Series into one or more subseries of Bonds.

Series Debt Reserve Requirement[*] means, for any Series of Bonds, the amount, if any, required pursuant to a Supplemental Ordinance or Determination to be reserved and (if such amount is greater than zero dollars ($0)) deposited or maintained in the Series Debt Reserve Subaccount established for such Series of Bonds; provided that such amount may equal zero dollars ($0); and provided further that such amount may not exceed the lesser of (i) the greatest amount of Debt Service Requirements payable on such Series of Bonds in any one Fiscal Year and (ii) the maximum amount permitted to be financed with proceeds of such Series of Bonds permitted by Section 148(d)(1) the Code (or any successor provision).

Series Debt Reserve Subaccount[*] means any subaccount of the Debt Reserve Account created, pursuant to a Supplemental Ordinance or Determination for a particular Series of Bonds, which Series of Bonds will not otherwise be secured by the Debt Reserve Account and for which a Series Debt Reserve Requirement applies.

Sinking Fund means the Sinking Fund established pursuant to the General Ordinance.

Sinking Fund Installment means an amount so designated which is established pursuant to the General Ordinance.

Special Water Infrastructure Account means the Special Water Infrastructure Account of the Residual Fund established in the General Ordinance.

Standby Agreement with respect to a Series of Bonds, means an irrevocable letter of credit and related reimbursement agreement, line of credit, standby bond purchase agreement or similar agreement providing for the purchase of all or a portion of the Bonds of such Series, as amended, supplemented or extended from time to time.

Standby Purchaser, with respect to a Series of Bonds, means the provider of the Standby Agreement for such Series of Bonds.

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[*] See APPENDIX II-B – "Twenty-First Supplemental Ordinance" attached to this Official Statement for definitional modifications and additions contained in the Springing Amendments, including adding this defined term. The Springing Amendments include provisions that will allow the City to establish a Series Debt Reserve Subaccount and a related Series Debt Reserve Requirement.

Subordinated Bond means any Bond referred to in, and complying with the provisions of the General Ordinance with respect to Subordinated Bonds.

Subordinated Bond Fund means the Subordinated Bond Fund established in the General Ordinance.

*Substitute Credit Facility** means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that replaces a Credit Facility and is provided by a commercial bank, insurance company or other financial institution with a current long term credit rating (or whose obligations thereunder are guaranteed by a financial institution with a long term rating) from Moody's and S&P not lower than the credit rating of any Series of Bonds which has no Credit Facility.

Supplemental Ordinance means an ordinance supplemental to the General Ordinance enacted pursuant to the Act and the General Ordinance by the Council of the City.

System means the entire combined water system and wastewater system of the City, now existing and hereafter acquired by lease, direct control, purchase or otherwise or constructed by the City, including any interest or participation of the City in any facilities in connection with said System, together with all additions, betterments, extensions and improvements to said System or any part thereof hereafter constructed or acquired and together with all lands, easements, licenses and rights of way of the City and all other works, property or structures of the City and contract rights and other tangible and intangible assets of the City now or hereafter owned or used in connection with or related to said System.

Tender Agent, with respect to a Series of Bonds, means any commercial bank or trust company organized under the laws of any state of the United States or any national banking association designated as a tender agent for such Series of Bonds, and its successor or successors hereafter appointed in the manner provided in the applicable Supplemental Ordinance or Determination.

Uncertificated Bond means any Bond which is fully registered as to principal and interest and which is not represented by an instrument.

Variable Rate Bond means any Bond, the rate of interest on which is subject to change prior to maturity and cannot be determined in advance of such change.

Water and Wastewater Funds means, collectively, the Revenue Fund, the Sinking Fund, the Subordinated Bond Fund, the Rate Stabilization Fund, the Residual Fund and the Construction Fund.

Water Commissioner means the head of the Water Department as provided by the Philadelphia Home Rule Charter.

Water Department means the Water Department of the City created pursuant to Section 3-100 of the Philadelphia Home Rule Charter.

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* See APPENDIX II-B – "Twenty-First Supplemental Ordinance" for definitional modifications and additions contained in the Springing Amendments, including modifications to the definition of Substitute Credit Facility.

SUMMARY OF OPERATIVE PROVISIONS
OF THE GENERAL ORDINANCE

The following is a summary of certain operative provisions of the General Ordinance. Reference should be made to the General Ordinance for a full and complete statement of its provisions and the meaning of any capitalized terms used herein but not otherwise defined.

Form and Terms of Bonds

All Bonds shall be in substantially such form as may be approved by the City and set forth in the Supplemental Ordinance or Determination providing for the issuance thereof. Bonds shall be generally designated as Water and Wastewater Revenue Bonds of the City and shall be issued in such Series and within such Series in such subseries as the City may from time to time determine. The aggregate principal amount of Bonds which may be issued, authenticated and delivered under the General Ordinance is unlimited, but prior to the issuance of such Series of Bonds, the City shall enact a Supplemental Ordinance authorizing such Series and the maximum aggregate principal amount of such Series.

The Bonds shall be issued in fully registered form, except as provided in the General Ordinance and, such Bonds shall be issued upon and contain such additional terms as may be set forth in the Supplemental Ordinance and Determination providing for the issuance of the Bonds in question. As required by Section 5 of the Act, all Bonds shall contain a brief statement of the Project Revenues pledged as security therefor and the priority or priorities, if any, in the application of such pledged Project Revenues and shall contain a covenant of the City to pay from the pledged Project Revenues on the respective due dates the amounts required to pay the interest on and principal or redemption price of the Bonds. Bonds may be designated as of such Series by date, number, letter or otherwise and may also have such individual letters, identifying numbers or other marks, and such descriptive panels, registration panels, legends or endorsements placed thereon as may, consistent with the General Ordinance and the Act, be determined by a Supplemental Ordinance, Determination or the Director of Finance. The Bonds may also have printed thereon or on the reverse thereof the text of an approving legal opinion with respect thereto. Any portion of the text of any Bond may be set forth on the reverse thereof with an appropriate reference on the face of the Bond.

The Bonds of each Series shall be issued in such aggregate principal amount, shall be in such denominations, shall mature or be subject to mandatory redemption in such principal amounts, on such dates and at such places, shall have such Sinking Fund Installments for Bonds of like maturity and interest rate, shall bear interest from such date or dates and at such rate or rates (including variable, adjustable, convertible or other rates), shall be subject to optional redemption at such times and upon such terms, shall (if such Bonds are Option Bonds) be subject to optional or mandatory tender, and shall contain such other terms and conditions not inconsistent with the General Ordinance or the Act, all as shall be determined by the City and set forth in the Supplemental Ordinance or Determination under which such Bonds are issued, or as shall be determined by a designated officer or officers of the City thereunto authorized by the Supplemental Ordinance, or in the absence of such provisions or designation, as shall be determined by the Director of Finance as specified below.

If permitted by applicable law, any Series of Bonds may be issued as Uncertificated Bonds and the foregoing provisions specifying the form of Bonds shall be inapplicable to such Series.

A Series of Bonds may be secured by a Credit Facility meeting the requirements of the General Ordinance and the applicable Supplemental Ordinance. In connection with the issuance of its Bonds or at any time thereafter so long as a Series of Bonds remains Outstanding, the City also may enter into Qualified Swaps or Exchange Agreements if the Bond Committee determines that such Qualified Swap or Exchange

Agreement will assist the City in more effectively managing its interest costs. The City's payment obligation under any Qualified Swap shall be made from the Sinking Fund and its payment obligation under any such Exchange Agreement shall be made from the Residual Fund created pursuant to the General Ordinance. Unless otherwise acknowledged by each Rating Agency by virtue of its confirmation of the existing credit ratings on the City's Outstanding Bonds, the City will not enter into any Qualified Swap or Exchange Agreement unless it gives at least fifteen (15) day's advance notice of its intention to do so to each of the Rating Agencies, which notice shall specify the identity of the Qualified Swap Provider or Exchange Agreement counterparty, as the case may be.

Sale of Bonds; Taxes Not to be Assumed; Authority of Director of Finance

Bonds may be sold by the City at public, private, or invited sale upon such terms not inconsistent with the Act and at such prices as the City may determine. To the extent that the Supplemental Ordinance authorizing any Series of Bonds and the Determination relating to such Series shall not otherwise provide:

(a) all Bonds shall be sold at competitive public sale to the purchaser or purchasers submitting the highest and best bid upon such terms and conditions of the bidding as shall be specified in an official notice of sale issued in the name of the City by the Director of Finance;

(b) no covenant to pay or assume any taxes shall be included in such Bonds; and

(c) subject to the foregoing, the terms upon which are the prices for which the Bonds are to be sold or exchange, and the form, terms or provisions of the Bonds including, without limitation, the matters referred to in Section 5 of the Act, shall be determined by the Director of Finance who is designated in the General Ordinance as the officer of the City authorized to make such determinations based, to the extent applicable, on the prices, interest rates or other terms set forth in the highest and best proposal conforming to the bidding specifications, as ascertained and accepted on behalf of the City by the Director of Finance.

Payments of Principal, Redemption Price and Interest; Date of Bonds

Unless otherwise provided in any Bond or the Supplemental Ordinance or Determination relating thereto:

(a) The principal or redemption price of each Bond shall be payable upon surrender thereof at the principal Philadelphia office of the Fiscal Agent in Philadelphia, Pennsylvania or at the principal office of a paying agent designated in such Bonds.

(b) The interest due on any Bond in fully registered form shall be payable by check or draft mailed to the Holder thereof, or at the request of a Holder of $1,000,000 or more in principal amount or maturity value of Bonds by wire transfer to an account at a financial institution in the United States, designated in writing to the Fiscal Agent or the paying agent, subject to such provisions concerning record dates as may be contained in such Bond and in the Supplemental Ordinance and Determination providing for the issuance and terms thereof.

(c) The principal or redemption price of and the interest on each Bond shall be payable in any coin or currency of the United States of America which, at the time of payment, is legal tender for the payment of public and private debts, or Bonds of a Series may be payable in such foreign currency as may be specified in the Supplemental Ordinance authorizing such Series of Bonds, if applicable law permits.

(d) Fully registered Bonds of each Series shall be dated as of the date six months preceding the interest payment date next following the date of execution thereof by the Fiscal Agent, unless such date of execution shall be an interest payment date, in which case they shall be dated as of such date of execution; provided, however, that if, as shown by the records of the Fiscal Agent, interest on the Bonds of any Series shall be in default, fully registered Bonds of such Series issued in lieu of Bonds surrendered for transfer or exchange may be dated as of the date to which interest has been paid in full on the Bonds surrendered. Fully registered Bonds of each Series shall bear interest from their date.

Notwithstanding any other provision in The General Ordinance to the contrary, the foregoing provisions are subject to the express understanding that the principal of and interest on all Bonds issued under the General Ordinance and the premium, if any, payable on redemption thereof, shall be payable only from Project Revenues and other funds provided for the payment of Bonds. The Bonds are not general obligations of the City and do not pledge the general credit or taxing power or create any debt or charge against the general revenues of the City, or create any lien against any property of the City other than pledged Project Revenues.

Execution of Bonds

The Bonds shall be executed on behalf of the City by the Fiscal Agent by the manual signatures of two of its duly authorized officers or signers, under the seal of the City which shall be either affixed or reproduced thereon in facsimile and shall be countersigned and attested by the manual or facsimile signature of the City Controller, or in such other manner as shall be authorized by law and prescribed by Supplemental Ordinance. Any such Bonds may be executed, issued and delivered notwithstanding that one or more of the officers or signers signing such Bonds or whose facsimile signature shall be upon such Bonds shall have ceased to be such officers or signers at the time when such Bonds shall actually be delivered, and although at the nominal date of the Bond any such person shall not have been such officer or signer.

Bond Registrar and Bond Register

The City shall designate one or more persons to act as "Bond Registrar" for the Bonds provided that the Bond Registrar appointed for the Bonds shall be either the Fiscal Agent or a person which would meet the requirements for qualification as a Fiscal Agent imposed by the General Ordinance. Any person other than the Fiscal Agent undertaking to act as Bond Registrar shall first execute a written agreement, in form satisfactory to the City and the Fiscal Agent, to perform the duties of a Bond Registrar under the General Ordinance, which agreement shall be filed with the Fiscal Agent.

The Bond Registrar shall act as registrar and transfer agent for the Bonds. The City shall cause the Bond Registrar to designate, by a written notification to the Fiscal Agent, a specific office location at which the Bond Register is kept. The principal corporate trust office of the Fiscal Agent shall be such office in respect of the Bonds for which the Fiscal Agent is acting as Bond Registrar.

The Bond Registrar shall, in any case where it is not also the Fiscal Agent, forthwith following each regular record date and at any other time as reasonably requested by the Fiscal Agent, certify and furnish to the Fiscal Agent and any paying agent as the Fiscal Agent shall specify, the names, addresses, and holdings of Bondholders and any other relevant information reflected in the Bond Register, and the Fiscal Agent and any such paying agent shall for all purposes be fully entitled to rely upon the information so furnished to it and shall have no liability or responsibility in connection with the preparation thereof.

Interchangeability of Bonds

Fully registered Bonds, upon surrender thereof at the office of Bond Registrar with a written instrument of transfer satisfactory to the Bond Registrar, duly executed by the registered owner or his duly authorized attorney may at the option of the registered owner thereof, and upon payment by such registered owner of any charges, which the City or Bond Registrar may make, be exchanged for an equal aggregate principal amount of fully registered Bonds of the same Series, maturity and interest rate of any other authorized denominations.

Negotiability, Transfer and Registry

Fully registered Bonds shall be transferable only by the registered owner thereof in person or by his attorney duly authorized in writing, upon surrender thereof together with a written instrument of transfer satisfactory to the Bond Registrar duly executed by the registered owner or his duly authorized attorney. Upon the transfer of any such fully registered Bonds the City shall issue and the Bond Registrar shall execute in the name of the transferee a new fully registered Bond or Bonds of the same aggregate principal amount and Series, maturity and interest rate as the surrendered Bonds.

The City, the Fiscal Agent and any paying agent designated in the Bonds may deem and treat the person in whose name any Bond shall be registered in the Bond Register as the absolute owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment of, or on account of, the principal and redemption price of and interest on such Bond and for all other purposes, and all such payments so made to any such registered owner or upon his order shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid, and neither the City, the Fiscal Agent nor any paying agent designated in the Bond shall be affected by any notice to the contrary.

Any consent, waiver or other action taken by the registered owner of any Bond pursuant to the provisions of the General Ordinance shall be conclusive and binding upon such Holder, his heirs, successors or assigns, and upon all transferees of such Bond whether or not notation of such consent, waiver or other action shall have been made on such Bond or on any Bond issued in exchange therefor.

Regulations With Respect to Exchanges and Transfers

In all cases in which the privilege of exchanging Bonds or transferring registered Bonds is exercised, the City shall execute and deliver Bonds in accordance with the General Ordinance. All Bonds surrendered in any such exchanges or transfers shall forthwith be delivered to the Bond Registrar and cancelled or retained by the Bond Registrar. For every such exchange or transfer of Bonds, whether temporary or definitive, the City or the Bond Registrar may make a charge sufficient to reimburse it for any tax, fee or other governmental charge imposed by a governmental unit other than the City in connection with said exchange, transfer or registration and for any charge of insuring Bonds during the delivery thereof. Neither the City nor the Bond Registrar shall be required to transfer or exchange Bonds of any Series for a period of 20 days next preceding any selection of Bonds to be redeemed or thereafter until after the first mailing of any notice of redemption, or to transfer, exchange or register any Bonds called for redemption.

Credit Enhancement; Exchange Agreements; Qualified Swaps

As provided by Supplemental Ordinance or Determination relating to any Series of Bonds and subject to the requirements of the General Ordinance, the City may provide for a Credit Facility, Exchange Agreement or Qualified Swap with respect to any Series of Bonds.

Purpose of Bonds; Combination or Projects for Financing Purposes

The Bonds issued under the General Ordinance shall be issued for the purpose (i) of paying the costs of Projects (as such term is defined in the Act) relating to the System, (ii) of reimbursing any fund of the City from which such costs shall have been paid or advanced, (iii) of funding any of such costs for which the City shall have outstanding bond anticipation notes or other obligations, (iv) of refunding any

Bonds or bonds of the City issued for the foregoing purposes or (v) of financing anything else relating to the System permitted under the Act. The water and wastewater systems of the City (referenced in the definition of "System" above) are combined as a Project for the purpose of capital financing but the separate accounts or subaccounts required by the Philadelphia Home Rule Charter shall be maintained within the funds and accounts established under the General Ordinance in accordance with the Philadelphia Home Rule Charter.

Pledge or Revenues; Grant of Security Interest; Limitation on Recourse

The City pledges, and assigns to the Fiscal Agent, its successors in trust and its assigns, for the security and payment of all Bonds (other than Subordinated Bonds) and grants to said Fiscal Agent, its successors in trust and its assigns, a lien on and security interest in (i) all Project Revenues and (ii) all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established in the General Ordinance together with interest earnings on amounts in such funds and accounts (other than the Rebate Fund). The Fiscal Agent shall hold and apply the security interest granted in the General Ordinance and the pledged revenues and funds described therein, in trust, for the equal and ratable benefit and security of all present and future Holders of Bonds (other than Subordinated Bonds) issued pursuant to the provisions of the General Ordinance and each Supplemental Ordinance, without preference, priority or distinction of any one Bond over any other Bond (other than Subordinated Bonds); provided however, that the pledge of the General Ordinance may also be for the benefit of a Credit Facility and Qualified Swap, or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds (other than Subordinated Bonds), on an equal and ratable basis with Bonds, to the extent provided by any Supplemental Ordinance or Determination.

For the purpose of compliance with the filing requirements of the Uniform Commercial Code in order to perfect the security interest granted by the General Ordinance, the Fiscal Agent shall be deemed to be, and the City recognizes the Fiscal Agent as, the representative of Bondholders to execute financing statements as the secured party.

Neither the Bonds nor the City's reimbursement or other contractual obligations under any Credit Facility, Qualified Swap or Exchange Agreement shall constitute a general indebtedness or a pledge of the full faith and credit of the City within the meaning of any constitutional or statutory provision or limitation of indebtedness. No Bondholder or beneficiary of any of the foregoing agreements shall ever have the right, directly or indirectly, to require or compel the exercise of the ad valorem taxing power of the City for the payment of the principal and redemption price of or interest on the Bonds or the making of any payments under the General Ordinance. The Bonds and the obligations evidenced thereby and by the foregoing agreements, shall not constitute a lien on any property of or in the City, other than the Project Revenues and amounts on deposit in or standing to the credit of the Water and Wastewater Funds and interest earnings on amounts in such funds.

Parity Bonds

All Bonds issued under the General Ordinance (other than Subordinated Bonds) shall be parity Bonds equally and ratably secured by the pledge of and grant of the security interest in the Project Revenues and the amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund), together with interest earnings on amounts in such funds and accounts (other than the Rebate Fund) without preference, priority or distinction as to lien or otherwise, except as otherwise provided, of any one Bond over any other Bond or as between principal and interest.

The City reserves the right, and nothing in the General Ordinance shall be construed to impair such right, to finance improvements to the System by the issuance of its general obligation bonds or by the issuance, under ordinances other than Supplemental Ordinances, of water and/or wastewater revenue bonds or notes for the payment of which Project Revenues may be used or pledged subject and subordinate to the payment from such Project Revenues of the payments described below under "Transfers From Revenue Fund" and subject to the elimination of any deficiency in any fund or account established under the General Ordinance or under any Supplemental Ordinance.

Establishment of Funds and Accounts

The following funds and accounts are established by the General Ordinance and shall be held by the Fiscal Agent:

(a) Revenue Fund;

(b) Sinking Fund and within such Fund a Debt Service Account, a Charges Account and a Debt Reserve Account;

(c) Subordinated Bond Fund;

(d) Rate Stabilization Fund;

(e) Residual Fund and within such Fund a Special Water Infrastructure Account;

(f) Construction Fund, and within the Construction Fund, separate accounts designated as follows:

(i) the Existing Projects Account, into which existing proceeds, if any, of revenue bonds heretofore issued under the Act in respect of the System shall be deposited,

(ii) the Bond Proceeds Account, into which proceeds of Bonds issued under the General Ordinance shall be deposited, and

(iii) the Capital Account;

(g) Rebate Fund.

Nothing in the General Ordinance shall be construed to prevent the City from establishing, in connection with the issuance of one or more Series of Bonds, additional funds or accounts to be held for the benefit of one or more Series of Bonds issued under the General Ordinance, as set forth in Supplemental Ordinances; provided that, no such additional funds or accounts shall be established unless, in the opinion of Bond Counsel, establishment of additional funds or accounts would not adversely affect the exclusion of interest on Bonds, if any, from gross income for federal income tax purposes.

Segregation of Water and Wastewater Funds; Deposit of Project Revenues into Revenue Fund

(a) The Water and Wastewater Funds shall 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.

(b) The City shall 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 Determination and any other funds directed to be deposited into the Revenue Fund by the City. The Fiscal Agent shall, at the written direction of the City, disburse from the Revenue Fund the amounts and at the times specified below under "Transfers From Revenue Fund."

(c) If at any time sufficient moneys are not available in the Revenue Fund to pay Operating Expenses and to make transfers required pursuant to the General Ordinance, 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.

Transfers From Revenue Fund

Amounts on deposit in the Revenue Fund shall be applied by the Fiscal Agent, at the written direction of the City, in the following manner and in the following order of priority:

(a) to the City or its designees to pay such sums as are necessary to meet Operating Expenses in a timely manner;

(b) (i) on or before the dates that the principal or redemption price of and interest on Bonds (other than Subordinated Bonds) or payments under a Swap Agreement or Credit Facility are due, to deposit in the Debt Service Account of the Sinking Fund the amount necessary to provide for the timely payment of the principal or redemption price of and interest on such Bonds (other than Subordinated Bonds), any payments under any Swap Agreement and any amounts under a Credit Facility to repay advances thereunder to pay any of the foregoing, and (ii) on or before the dates that other payments are due under any Credit Facility with respect to Bonds (other than Subordinated Bonds) to deposit in the Charges Account of the Sinking Fund the amount necessary to make such payments;

(c) if the transfers in paragraphs (a) and (b) above are being made according to schedule, for deposit in the Debt Reserve Account, the amount, if any, required to eliminate any deficiency therein;

(d) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer required pursuant to paragraph (c) above, to deposit in any debt reserve account established within the Sinking Fund and not held for the equal and ratable benefit of all Bonds (other than Subordinated Bonds), the amount, if any, required to eliminate any deficiency therein;

(e) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer then required to be made pursuant to paragraphs (c) and (d) above, to deposit in the Subordinated Bond Fund the amount necessary to provide for the timely payment of the principal or redemption price of and interest on Subordinated Bonds, and forward to the paying agent in respect of bond anticipation notes (payable by exchange for, or out of the proceeds of the sale of Subordinated Bonds) the amount necessary to provide for the timely payment of interest thereon (to the extent not capitalized);

(f) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer then required to be made pursuant to paragraphs (c), (d) and (e) above to pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest on General Obligation Bonds;

(g) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer then required to be made pursuant to paragraphs (c), (d), (e) and (f) above, to transfer to the Rate Stabilization Fund such amount as the Water Commissioner may determine, the first such determination to be made on the Effective Date and to include the balance on that date in the Renewal and Replacement Fund created under the Prior Ordinance and the unencumbered operating balance of the Water Department as of the end of the Fiscal Year immediately preceding the Effective Date;

(h) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer then required to be made pursuant to paragraphs (c) , (d) , (e), (f) and (g) above, to transfer to the Capital Account of the Construction Fund on June 20, of each Fiscal Year (or the first business day following June 20 if June 20 is not a business day) an amount equal to the sum of (i) the Capital Account Deposit Amount, (ii) the Debt Service Withdrawal for the preceding Fiscal Year and (iii) the Operating Expense Withdrawal for the preceding Fiscal Year, less any amounts transferred during the Fiscal Year to such Capital Account from the Residual Fund; and

(i) if the transfers in paragraphs (a) and (b) above are being made according to schedule, and following any transfer then required to be made pursuant to paragraphs (c), (d), (e), (f), (g) and (h) above and after providing for the repayment of any inter-Fund loans, to transfer as of June 30 of each year all remaining amounts to the Residual Fund.

Notwithstanding the foregoing, nothing in the General Ordinance shall prevent the City from directing the transfer of amounts on deposit in any fund or account established under the General Ordinance into the Rebate Fund in the amounts and at the times specified below under "Funds and Accounts — Rebate Fund."

Sinking Fund

The Sinking Fund is to be a consolidated fund for the equal and proportionate benefit of the Holders of all Bonds (other than Subordinated Bonds) from time to time Outstanding and each account therein may be invested and reinvested on a consolidated basis.

The Fiscal Agent, as directed by the City by Supplemental Ordinance, Determination or other written direction, shall pay out of the Debt Service Account of the Sinking Fund to the designated paying agent or agents (i) on or before each interest payment date for any of the Bonds (other than Subordinated Bonds) the amount required for the interest payable on such date; and (ii) on or before each principal, redemption or prepayment date for any Bonds (other than Subordinated Bonds), the amount required for the principal, redemption or prepayment payable on such date, and (iii) on or before the respective due dates the amounts, if any, due under any Swap Agreements. Such amounts shall be applied by the designated paying agent or agents on the due dates thereof. The Fiscal Agent shall also pay out of the Debt Service Account of the Sinking Fund the accrued interest included in the purchase price of Bonds purchased for retirement and on or before the due dates any amounts owing by the City under any Credit Facility on account of advances to pay principal of or interest or redemption premium on Bonds (other than Subordinated Bonds).

Amounts accumulated in the Debt Service Account with respect to any Sinking Fund Installment (together with amounts accumulated therein with respect to interest on the Bonds for which such Sinking

Fund Installment was established) if so directed by the City, shall be applied by the Fiscal Agent, on or prior to the 60th day preceding the due date of such Sinking Fund Installment, to the purchase of Bonds of the Series, maturity and interest rate within each maturity for which such Sinking Fund Installment was established. All purchases of Bonds pursuant to this provision shall be made at prices not exceeding the applicable sinking fund redemption price of such Bonds plus accrued interest, and such purchases shall be made by the Fiscal Agent as directed by the City. As soon as practicable after the 42nd day preceding the due date of any such Sinking Fund Installment, the Fiscal Agent shall proceed to call for redemption, by giving notice as provided in the General Ordinance, on such due date Bonds of the Series, maturity and interest rate within each maturity for which such Sinking Fund Installment was established (except in the case of Bonds maturing on a Sinking Fund Installment date) in such amount as shall be necessary to complete the retirement of the unsatisfied balance of such Sinking Fund Installment after making allowance for any Bonds purchased with moneys held in the Subordinated Bond Fund which the City has directed the Fiscal Agent to apply as a credit against such Sinking Fund Installment. The Fiscal Agent shall pay out of the Sinking Fund to the appropriate paying agent or agents, on or before such redemption date (or maturity date) the amount required for the redemption of the Bonds so called for redemption (or for the payment of such Bonds then maturing) and such amount shall be applied by such paying agent or agents to such redemption (or payment). All expenses in connection with the purchase or redemption of Bonds shall be paid by the City from Project Revenues.

In the event of the refunding of any Bonds, the Fiscal Agent shall, if the City so directs, withdraw from the Sinking Fund all, or any portion of, the amounts accumulated therein with respect to principal or interest on the Bonds being refunded and deposit such amounts with itself or another financial institution serving as escrow agent to be held for the payment of the principal or redemption price, if applicable, and interest on the Bonds being refunded; provided that such withdrawal shall not be made unless immediately thereafter the Bonds being refunded shall be deemed to have been paid as described below under "Deposit of Funds for Payment of Bonds." In the event of a refunding, the City may also direct the Fiscal Agent to withdraw from the Sinking Fund all, or a portion of, the amounts accumulated therein with respect to principal and interest on the Bonds being refunded and deposit such amounts in any fund or account established under the General Ordinance.

If any Bond shall not be presented for payment when the principal thereof becomes due, either at maturity or otherwise or at the date fixed for redemption thereof, if moneys sufficient to pay such Bond shall have been deposited with the Fiscal Agent, it shall be the duty of the Fiscal Agent to hold such moneys, without liability to the City, any Bondholder or any other person for interest thereon, for the benefit of the owner of such Bond. Notwithstanding the foregoing, any moneys in the Sinking Fund for the payment of the interest, principal or redemption premium of Bonds unclaimed for two (2) years after the due date shall be repaid to the City but such repayment shall not discharge the obligation, if any, for which such moneys were previously held in the Sinking Fund; provided, however, that such repayment shall not be made unless, at the time of such repayment, there shall exist no deficiency in any fund or account established under the General Ordinance or any Supplemental Ordinance.

The Fiscal Agent shall pay out of the Charges Account to the appropriate payees any fees, expenses and other amounts due under any Credit Facility with respect to Bonds (other than Subordinated Bonds), to the extent such amounts are not paid from the Debt Service Account.

Credits Against Sinking Fund Installments

If at any time Bonds of any Series or maturity for which Sinking Fund Installments shall have been established are purchased or redeemed other than (i) from amounts accumulated in the Debt Service Account or (ii) Bonds deemed to have been paid as described under "Deposit of Funds for Payment of Bonds" below, and, with respect to such Bonds which have been deemed paid, irrevocable instructions have been given to the Fiscal Agent to redeem or purchase the same on or prior to the due date of the Sinking Fund Installment to be credited under this paragraph, the City may from time to time and at any time by written notice to the Fiscal Agent specify the portion, if any, of such Bonds so purchased, redeemed or deemed to have been paid and not previously applied as a credit against any Sinking Fund Installment which are to be credited against future Sinking Fund Installments. Such notice shall specify the amounts of such Bonds to be applied as a credit against such Sinking Fund Installment or Installments and the particular Sinking Fund Installment or Installments against which such Bonds are to be applied as a credit; provided, however that none of such Bonds may be applied as a credit against a Sinking Fund Installment to become due less than 42 days after such notice is delivered to the Fiscal Agent. All such Bonds to be applied as a credit shall be surrendered to the Fiscal Agent for cancellation on or prior to the due date of the Sinking Fund Installment against which they are being applied as a credit. The portion of any such Sinking Fund Installment remaining after the deduction of any such amounts credited toward the same (or the original amount of any such Sinking Fund Installment if no such amounts shall have been credited toward the same) shall constitute the unsatisfied balance of such Sinking Fund Installment for the purpose of calculation of Sinking Fund Installments due on a future date.

Debt Reserve Account*

Unless otherwise provided in the applicable Supplemental Ordinance, the City is required, under direction of the Director of Finance, to deposit in the Debt Reserve Account from the proceeds of sale of each Series of Bonds issued under the General Ordinance, an amount which, when added to the existing balance in the Debt Reserve Account, will be equal to the Debt Reserve Requirement immediately after the issuance of such Series of Bonds. The money and investments in the Debt Reserve Account shall be held and maintained in an amount equal at all times to the Debt Reserve Requirement provided that if the Supplemental Ordinance authorizing a Series of Bonds shall authorize the accumulation from Project Revenues of a reserve of such amount in respect of such Bonds over a period of not more than three Fiscal Years after the issuance and delivery of such Bonds, then the full payment of the annual deposits required under such Supplemental Ordinance will meet the Debt Reserve Requirements of the General Ordinance in respect of such Bonds.

If at any time and for any reason, the moneys in the Debt Service Account of the Sinking Fund are insufficient to pay as and when due, the principal of (and premium, if any) or interest on any Bond or Bonds or other obligations payable from the Debt Service Account then due (including under Swap Agreements and Credit Facilities), the Fiscal Agent is authorized and directed to withdraw from the Debt Reserve Account and pay over the amount of such deficiency for deposit in the Debt Service Account. If by reason of such withdrawal or for any other reason there shall be a deficiency in the Debt Reserve Account, the City covenants to restore such deficiency promptly from Net Revenues.

Any moneys in the Debt Reserve Account in excess of the Debt Reserve Requirement is required to be transferred to the Revenue Fund at the written direction of the City.

Notwithstanding the foregoing provisions, in lieu of the required deposits into the Debt Reserve Account, the City may cause to be deposited into the Debt Reserve Account a surety bond or an insurance policy payable to the Fiscal Agent for the account of the Bondholders and any Qualified Swap or an irrevocable letter of credit in an amount equal to the difference between the Debt Reserve Requirement and the remaining sums, if any, then on deposit in the Debt Reserve Account. The surety bond, insurance policy

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* The provisions described under this heading will be amended upon the consent to the Springing Amendments of 67% of Holders of the outstanding Bonds. See APPENDIX II-B – “Twenty-First Supplemental Ordinance” attached to this Official Statement.

or letter of credit shall be payable (upon the giving of notice as required thereunder) on any interest payment date on which moneys will be required to be withdrawn from the Debt Reserve Account and applied to the payment of debt service on the Bonds and such withdrawal cannot be met by amounts on deposit in the Debt Reserve Account or provided from any other Fund under the General Ordinance. The insurer providing such surety bond or insurance policy shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in not lower than the second highest rating category (without regard to rating subcategories) by either Moody's or S&P. The letter of credit issuer shall be a bank or trust company which is rated not lower than the second highest rating category (without regard to ratings sub-categories) by either Moody's or S&P. If a disbursement is made pursuant to a surety bond, an insurance policy or a letter of credit provided pursuant to this paragraph, the City shall be obligated either (i) to reinstate the maximum limits of such surety bond, insurance policy or letter of credit or (ii) to deposit into the Debt Reserve Account, funds in the amount of the disbursement made under such surety bond, insurance policy or letter of credit, or a combination of such alternatives, as shall provide that the amount in the Debt Reserve Account equals the Debt Reserve Requirement within a time period not longer than would be required to restore the Debt Reserve Account by operation of this provision and from the same source of funds as provided in the General Ordinance. Upon the occurrence of any reduction or suspension or any credit rating with respect to such surety bond, insurance policy or letter of credit (or the provider thereof) required by the General Ordinance, the City shall so notify the provider of the surety bond, insurance policy or letter of credit and prior to the effective date of such cancellation shall either provide a substitute surety bond, insurance policy or letter of credit meeting the above-described requirements or shall deposit cash in the Debt Reserve Account so that the amount in such Account shall equal the Debt Reserve Requirement. The Director of Finance may use funds already held in the Debt Reserve Account to purchase appropriate surety bonds or insurance policies for deposit in the Debt Reserve Account in lieu of some or all of the current cash or other deposits therein, which surety bonds or insurance policies shall satisfy the requirements described in this paragraph.

Subordinated Bond Fund

Subject to the third paragraph under this heading, the Fiscal Agent shall apply amounts in the Subordinated Bond Fund to the payment of the principal of, redemption premium, if any, and interest on Subordinated Bonds of a Series and to payments due under any Credit Facilities and Exchange Agreements with respect to Subordinated Bonds in accordance with the provisions of, and subject to the priorities and limitations and restrictions provided in, the Supplemental Ordinance and Determination authorizing such Series of Subordinated Bonds.

At any time and from time to time the City may deposit in the Subordinated Bond Fund for the payment of the principal of, redemption premium, if any, and interest on Subordinated Bonds amounts received from any source other than Project Revenues which is not inconsistent with the General Ordinance or any Supplemental Ordinance or Determination.

If at any time the amounts in the Sinking Fund shall be less than the current requirement of such fund pursuant to paragraphs (b) and (c) under "Transfers from Revenue Fund" above and there shall not be on deposit in the Debt Reserve Account, the Capital Account or the Residual Fund available moneys sufficient to cure such deficiency, then the Fiscal Agent shall withdraw from the Subordinated Bond Fund and deposit in the Sinking Fund the amount necessary (or all the moneys in said fund, if less than the amount necessary) to eliminate such deficiency.

Any moneys in the Subordinated Bond Fund for the payment of the interest, principal or redemption premium of Subordinated Bonds unclaimed for two years after the due date are to be repaid to the City but such repayment shall not discharge the obligation, if any, for which such moneys were previously held in the Subordinated Bond Fund; provided, however, that such repayment shall not be made unless, at the time of such repayment, there shall exist no deficiency in any fund or account established under the General Ordinance or any Supplemental Ordinance.

Construction Fund

Proceeds of Bonds issued for capital purposes are to be deposited into the Bond Proceeds Account of the Construction Fund and disbursed according to established procedures of the City.

The Fiscal Agent shall on the Effective Date deposit in the Existing Projects Account proceeds of Prior Bonds as directed by a Supplemental Ordinance or Determination; deposit in the Bond Proceeds Account the proceeds of Bonds as directed by a Supplemental Ordinance or Determination; and deposit in the Capital Account any amounts transferred pursuant to paragraph (h) under "Transfers from Revenue Fund" above. Amounts in the Existing Projects Account and Bond Proceeds Account shall be applied as directed in writing by the City for purposes permitted by the Act and the Bonds and such other purposes as are permitted under the General Ordinance.

Amounts deposited in the Capital Account may be applied at the written direction of the City to (i) payments for the cost of renewals, replacements and improvements to the System; (ii) payments into the Sinking Fund or into the Subordinated Bond Fund to cure a deficiency in one of the foregoing; or (iii) the purchase of Bonds if a Consulting Engineer shall first have certified to the City that amounts remaining on deposit in the Capital Account following the proposed purchase of Bonds will be sufficient to pay the cost of renewals, replacement and improvements to the System projected to be payable during such Fiscal Year; provided, however, that no Bond shall be purchased at a price in excess of the principal amount and redemption price which would be applicable if the Bond were redeemed at the time such Bond was first subject to redemption.

As described the section titled "Segregation of Water and Wastewater Funds; Deposit of Project Revenues into Revenue Fund" , the General Ordinance requires that, if at any time sufficient moneys are not available for the payment of Operating Expenses, then amounts on deposit in the Capital Account may be used for the payment of Operating Expenses to the extent of the deficiency.

Residual Fund

Amounts on deposit in the Residual Fund may be used at the written direction of the City (i) to pay Operating Expenses; (ii) to fund transfers to any fund or account established under the General Ordinance or under a Supplemental Ordinance (other than the Revenue Fund and the Rate Stabilization Fund); (iii) to make payments required under any Exchange Agreement; (iv) for the payment of principal, redemption premium, if any, and interest on any revenue bonds or notes (the proceeds of which were applied in respect of the System) issued under the Act but not under the General Ordinance; (v) for the payment of principal, redemption premium, if any, and interest on any General Obligation Bonds; (vi) for the payment of principal, redemption premium, if any, and interest on other general obligation debt issued in respect of the System; (vii) for the payment of amounts due under capitalized leases or similar obligations relating to the System; and (viii) to fund a transfer 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. "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.

The General Ordinance provides that the City establish expenditure authority from the Residual Fund to enable it to pay Operating Expenses and the other items permitted by the General Ordinance. In the event that there is a substitution of appropriate surety bonds or insurance policies from some or all of the deposits held in the Debt Reserve Account, a transfer of resulting excess money in the Debt Reserve Account to the Revenue Fund and, following compliance with the provisions described under "Transfers From Revenue Fund" above, a transfer of remaining amounts of such excess to the Residual Fund, such remaining amount shall be deposited into the Special Water Infrastructure Account. Any amounts deposited in the Special Water Infrastructure Account may be used to finance water-related infrastructure projects.

Rate Stabilization Fund

Pursuant to the General Ordinance, as of the effective date of the General Ordinance and as of June 30 of each Fiscal Year, the City may transfer (i) from the Rate Stabilization Fund to the Revenue Fund or (ii) from the Revenue Fund to the Rate Stabilization Fund, the amount determined by the Water Commissioner to be transferred for such Fiscal Year.

Rebate Fund

The General Ordinance provides that the Rebate Fund shall be maintained for so long as any Series of Bonds is Outstanding, and for 60 days thereafter (or such other period as may be specified by the Code and applicable regulations), for the purpose of paying to the United States Treasury the amount required to be rebated pursuant to Section 148(f) of the Code. All amounts in the Rebate Fund, including income earned from investment of amounts in the Rebate Fund, shall be held by the City free and clear of the lien created by the General Ordinance.

Management of Funds and Accounts

The General Ordinance provides that the moneys on deposit in the funds and accounts established under the General Ordinance, to the extent not currently required, shall be invested and secured as required by Section 9 of the Act, all at the direction and under the management of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established.

Investment of Funds and Accounts

All moneys deposited in any fund or account established under the General Ordinance or under any Supplemental Ordinance may be invested by the City or by the Fiscal Agent, at the oral or written direction of the City, in any investments permitted by law (except as otherwise provided in the General Ordinance with respect to the Debt Reserve Account and Rebate Fund); provided that any investments with respect to amounts on deposit in the funds (other than the Debt Reserve Account) and accounts established under the General Ordinance shall mature or shall be subject to redemption by the holder thereof upon demand at par no later than the date when such amounts are needed for the purposes of such funds or accounts. Interest earnings on amounts on deposit (i) in the Revenue Fund are to be credited to the Revenue Fund; (ii) in the Sinking Fund (except as provided in (iii) below) are to be credited to the Sinking Fund to the extent needed to meet Debt Service Requirements in respect of Bonds (other than Subordinated Bonds) and additional interest earnings shall be credited to the Revenue Fund; (iii) in the Debt Reserve Account shall be credited to the Debt Reserve Account until such account is fully funded and shall then be credited to the Residual Fund up to the maximum amount to be transferred to the City's General Fund and any excess is to then be transferred to the Revenue Fund; (iv) in the Subordinated Bond Fund are to be credited to the Subordinated Bond Fund to the extent needed to meet Debt Service Requirements in respect of Subordinated Bonds and additional interest earnings shall be credited to the Revenue Fund or to such other fund or account established under the General Ordinance as the City may direct pursuant to a Supplemental Ordinance; (v) in the Residual Fund, shall be credited to the Residual Fund; (vi) in the Rate Stabilization Fund shall be credited to the Revenue Fund; (vii) in the Construction Fund shall be credited to the appropriate account of the Construction Fund or to the Revenue Fund, as the City shall direct; and (viii) in the Rebate Fund shall be credited to the Rebate Fund.

Valuation of Funds and Accounts

In computing the assets of any fund or account established under the General Ordinance, investments and accrued interest thereon are to be deemed a part thereof. Such investments shall be valued on June 30 of each Fiscal Year at the lower of the cost or current market value thereof if the applicable maturity is more than one year and at par if the applicable maturity is equal to or less than one year plus accrued interest, or at the redemption price thereof, if then redeemable at the option of the holder; provided that investments in any reserve fund or reserve account of the Sinking Fund established pursuant to a Supplemental Ordinance may be valued as provided in the Supplemental Ordinance establishing it. The annual valuation is to apply for all purposes of the General Ordinance except if Bonds are issued or a fund deficit occurs based on the annual valuation, in which cases a valuation is to be made on the date Bonds are issued or the deficit is eliminated, as the case may be.

Covenants of the City

Rate Covenant[*]. Pursuant to the General Ordinance, the City covenants with the Bondholders that it will, at a minimum, impose, charge and collect in each Fiscal Year such water and wastewater rents, rates, fees and charges as shall yield Net Revenues which shall be equal to at least: (i) 1.20 times the Debt Service Requirements for such Fiscal Year (excluding Debt Service Requirements in respect of Subordinated Bonds); and (ii) 0.90 times Debt Service Requirements for such Fiscal Year (excluding Debt Service Requirements in respect of Subordinated Bonds); provided that, for purposes of this clause (ii), Net Revenues shall be calculated to exclude therefrom any amounts transferred from the Rate Stabilization Fund to the Revenue Fund in, or as of the end of, such Fiscal Year; and (iii) 1.00 times (A) the Debt Service Requirements for such Fiscal Year (including Debt Service Requirements in respect of Subordinated Bonds); (B) amounts required to be deposited into the Debt Reserve Account during such Fiscal Year; (C) the principal or redemption price of and interest on General Obligation Bonds payable during such Fiscal Year; (D) debt service requirements on Interim Debt payable during such Fiscal Year; and (E) the Capital Account Deposit Amount for such Fiscal Year (less any amounts transferred from the Residual Fund to the Capital Account during such Fiscal Year).

In estimating Debt Service Requirements on any Interim Debt for the purposes of projecting compliance with this covenant, the City is entitled to assume that such Interim Debt will be amortized over a period of up to the maximum term permitted by the Act, provided, however, such period shall not be in excess of the useful life of the assets to be financed, on an approximately level debt service basis and bear interest at the average interest rate on bonds of a similar maturity and credit rating (without any credit enhancement) as the Bonds outstanding under the General Ordinance. Promptly upon any material change in the circumstances which were contemplated at the time such rents, rates, fees and charges were most recently reviewed, but not less frequently than once in each Fiscal Year, the City is required to review the rents, rates, fees and charges as necessary to enable the City to comply with the foregoing requirements; provided that such rents, rates, fees and charges shall in any event produce moneys sufficient to enable the City to comply with its covenants in the General Ordinance.

[*] The provisions described under this heading will be amended upon the consent to the Springing Amendments of 67% of Holders of the outstanding Bonds. See APPENDIX II-B – "Twenty-First Supplemental Ordinance" attached to this Official Statement.

In estimating Debt Service Requirements on any Variable Rate Bonds for purposes of projecting compliance with this covenant or funding the 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 24 consecutive calendar months preceding the date of calculation or (ii) if the Variable Rate Bonds were not Outstanding during the entire 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.

Pursuant to the General Ordinance, the City represents that it has, by its Code of General Ordinances, as amended, authorized the imposition of rents, rates, fees and charges by the Water Department sufficient from time to time to comply with the Rate Covenant and covenants with the Holders of Bonds that it will not repeal or materially adversely dilute or impair such authorization.

Timely Payment of Principal, Redemption Premium and Interest. Pursuant to the General Ordinance, the City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as such Bonds shall remain Outstanding it will pay or cause the Fiscal Agent or a paying agent to pay from the Project Revenues deposited in the Sinking Fund and the Subordinated Bond Fund the principal of, redemption premium, if any, and interest on all Bonds as the same shall become due and payable and as more particularly set forth in the Bonds and to pay the amounts due with respect to any and all Credit Facilities (including the reimbursement agreement or similar related agreement) and Qualified Swaps.

Operation of System. Pursuant to the General Ordinance, the City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as such Bonds shall remain Outstanding it will continuously maintain the System or cause the System to be maintained in good condition and will continuously operate the System or cause the System to be operated.

Conditions of and Provisions Relating to Issuing Bonds. The City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as any such Bonds shall remain Outstanding it will not issue any Series of Bonds under the General Ordinance without first complying with certain conditions stated in the General Ordinance including, without limitation, (a) the enactment of a Supplemental Ordinance, (b) the filing with the Fiscal Agent of a transcript of the proceedings relating to the issuance of such Series of Bonds, (c) the delivery to the City Council of a Consulting Engineer's Report, (d) the filing with the Fiscal Agent of certain opinions of counsel and (e) the execution of appropriate documents.

The Consulting Engineer's Report referred to in the preceding paragraph shall state 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 Bonds are to be issued; provided that if interest on such 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 on the Bonds or a portion thereof.

The General Ordinance provides that upon compliance with the conditions enumerated in the preceding paragraph and unless otherwise provided in the applicable Supplemental Ordinance or Determination, accrued interest on Bonds (other than Subordinated Bonds) shall be deposited in the Sinking Fund, accrued interest on Subordinated Bonds shall be deposited in the Subordinated Bond Fund, an amount sufficient to satisfy the requirements concerning the Debt Reserve Account shall be deposited in the Debt Reserve Account and the balance of the proceeds of the Bonds shall be deposited in the Bond Proceeds Account of the Construction Fund and shall be disbursed therefrom, in accordance with established procedures of the City; provided, however, that if such Bonds shall be issued for the purpose of funding or refunding Bonds previously issued by the City such proceeds shall, unless otherwise directed by the

Supplemental Ordinance, be deposited in a special fund or account to be established with and held by the Fiscal Agent or another entity acting as an escrow agent and invested (if appropriate) and disbursed under the direction of the Director of Finance for the purpose of retiring the Bonds being funded or refunded.

Refunding Bonds

If the City shall, by Supplemental Ordinance, authorize the issuance of refunding Bonds pursuant to Section 10 of the Act, in the absence of specific direction or inconsistent authorization in the Supplemental Ordinance, the Director of Finance is authorized in the name and on behalf of the City to take all such action, including the irrevocable pledge of proceeds and the income and profit from the investment thereof for the payment and redemption of the funded or refunded Bonds, bonds or notes and, if there shall have been provided a Qualified Swap with respect to the Bonds to be refunded, provision for the payment, if any, of all amounts due and payable by the City under such Qualified Swap, and including the publication of all required redemption notices or the giving of irrevocable instructions therefor, as may be necessary or appropriate to accomplish the funding or refunding and to comply with the requirements of Section 10 of the Act.

Subordinated Bonds

The City may, at any time, or from time to time, issue Subordinated Bonds for any purpose permitted under the General Ordinance and under the Act. Subordinated Bonds shall be payable out of, and may be secured by a security interest in and a pledge and assignment of, Project Revenues and amounts on deposit in the Subordinated Bond Fund; provided, however, that any such security interest in and pledge and assignment of Project Revenues and amounts on deposit in the Subordinated Bond Fund shall be, and shall be expressed to be, subordinate in all respects to the security interest in, and pledge and assignment of, the Project Revenues and the amounts on deposit in the funds and accounts (other than the Rebate Fund but including the Subordinated Bond Fund) established under the General Ordinance for the security of the Bonds (other than Subordinated Bonds).

Annual Reports

The City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as such Bonds shall remain Outstanding it will, within 120 days following the close of each Fiscal Year of the City or as soon thereafter as is practicable (not exceeding 150 days following the close of each Fiscal Year), file with the Fiscal Agent a report of the operation of the System, setting forth, among other things, in reasonable detail financial data concerning, and consolidated for, the water and wastewater components of the System for such Fiscal Year, including a balance sheet and a statement of income, expenses, and surplus (in each case not inconsistent with the statement of income, expenses, and other accounts of the City audited by the City Controller) prepared by the Water Department in accordance with generally accepted accounting principles consistently applied, showing compliance with the Rate Covenant, accompanied by a certificate of the Water Commissioner that the water and wastewater components of the System are in good operating condition and by a certificate of the Director of Finance that as of the date of such report the City has complied with all of the covenants in the General Ordinance and in all Supplemental Ordinances on its part to be performed. Such report shall be furnished to the Fiscal Agent in such reasonable number of copies as shall be required to meet the written requests of Bondholders therefor on a first come first served basis.

Disposition of Insurance Proceeds and Proceeds from the Sale of Assets

In the event that any assets of the System are destroyed or the City shall sell any assets of the System (except in the event of the sale or transfer of all or substantially all of the assets of the System to a municipal authority), the City shall, if the insurance proceeds or the proceeds from the sale of assets exceed 1.5% of the depreciated value of property, plant and equipment of the System, as shown on the financial statements of the City for the preceding Fiscal Year, apply such amounts, at the direction .of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established (i) to the retirement of the principal amount of debt incurred in respect to the System; (ii) to the reconstruction, repair or replacement of assets of the System; or (iii) to the making of capital additions or improvements to the System.

Bonds Not to Become Arbitrage Bonds

The General Ordinance provides that the City covenants for the benefit of the Bondholders that, notwithstanding any other provision of the General Ordinance or any other instrument, it will neither make nor instruct the Fiscal Agent to make any investment or other use of amounts on deposit in the funds and accounts established by the General Ordinance or other proceeds of the Bonds which would cause any Series of Bonds issued under the General Ordinance as tax-exempt to be arbitrage bonds under Section 148 of the Code and the regulations thereunder to the extent that the same are applicable at the time of such investment; it will file any reports required to be filed pursuant to the Code; and it will not take or fail to take any action so as to render any Series of Bonds issued under the General Ordinance as tax-exempt to be arbitrage bonds under Section 148 of the Code.

Prohibition Against Certain Uses of Funds; Enforcement

The City covenants that while any Bonds are Outstanding under the General Ordinance, 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.

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, and shall have any and all other rights and remedies of a fiscal agent under the General Ordinance, any Supplemental Ordinance, the Act or otherwise at law or in equity.

Credit Facilities and Qualified Swaps

All or any of the foregoing covenants of the City for the benefit of the Bondholders may also be for the benefit of the providers of any Credit Facility and any Qualified Swap to the extent provided in a Supplemental Ordinance or Determination.

Bonds May Be Subject to Redemption

Bonds of any Series may be subject to either optional or mandatory redemption at the times, in the order, in the amounts, at the redemption prices, and under such terms, conditions and restrictions, ail as may be set forth in the Supplemental Ordinance authorizing the issuance of such Series of Bonds or in the Determination relating to such Series of Bonds or, in the absence of such provisions, as may be set forth in the Bonds of such Series, at the direction of the Director of Finance. Notwithstanding or in limitation of the foregoing, a Supplemental Ordinance or Determination for a Series of Bonds may contain provisions for optional redemption of a Series of Bonds which may be retained by the City as a call option or may be held by the City or sold simultaneously with such Series of Bonds or at future dates as determined by such Supplemental Ordinance or Determination.

Effect of Redemption, Payment

Upon compliance with certain notice requirements stated in the General Ordinance, or upon irrevocable instructions to give such notice having been delivered to the Fiscal Agent, irrevocable instruction having been delivered to the Fiscal Agent to pay said Bonds or portions thereof and to pay the amount, if any, due and payable under any Qualified Swap related to said Bonds, and funds having been deposited in the Sinking Fund or the Subordinated Bond Fund (as the case may be) prior to the date fixed for redemption, the Bonds or portions thereof so called for redemption shall become due and payable on the redemption date so designated, and interest on such Bonds or portions thereof shall cease from such redemption date, whether such Bonds be presented for redemption or not. The principal amount of all Bonds or portions thereof so called for redemption, together with the premium, if any, and accrued interest thereon, shall be paid by the Fiscal Agent or any other paying agent designated in the Bonds, upon presentation and surrender thereof in negotiable form.

Partial Redemption

Upon presentation of any Bond which is to be redeemed in part only, the City and the Fiscal Agent shall execute and deliver to the Holder thereof, at the expense of the City, a new Bond or Bonds of authorized denominations in a principal amount equal to and of the same Series and maturity as the unredeemed portion of the Bond or Bonds so presented.

Fiscal Agent

The Fiscal Agent under the Prior Ordinance or its successor, shall be Fiscal Agent as of the Effective Date for the General Ordinance. The City may appoint a successor Fiscal Agent by Supplemental Ordinance to act as Fiscal Agent under the General Ordinance, and in connection with the Bonds issued under the General Ordinance. The Fiscal Agent shall also act as depository of the Sinking Fund and the Subordinated Bond Fund, and may act as paying agent and bonds registrar.

Nothing in the General Ordinance is to be construed to prevent the City, in accordance with law, from engaging other Fiscal Agents from time to time or to engage other paying agents of the Bonds or any Series thereof in addition to, or as a successor to the Fiscal Agent. Any entity appointed by the City as Fiscal Agent under the General Ordinance shall be a trust company or national or state bank having trust powers and combined capital and surplus of at least $50,000,000 and be qualified to serve pursuant to the Act. Any entity appointed by the City as Fiscal Agent under the General Ordinance as a successor to the Fiscal Agent shall assume all rights and obligations of the Fiscal Agent under the General Ordinance.

Subject to the foregoing, the General Ordinance provides that the proper officers of the City are authorized to enter into contracts or to confirm existing agreements governing the maintenance of funds and accounts and records, the disposal of cancelled Bonds, the rights, duties, privileges and immunities of the Fiscal Agent, and such other matters as are authorized by the Act and as are customary and appropriate and to confirm the agreement of the Fiscal Agent, in its several capacities, to comply with the provisions of the Act and of the General Ordinance.

The Fiscal Agent shall keep on file a copy of each report and its accompanying certificates delivered to it pursuant to the General Ordinance for a period of ten years and shall exhibit the same to, and permit the copying thereof by, any Bondholder or his authorized representative at all reasonable times.

Resignation of Fiscal Agent

The Fiscal Agent may resign and be discharged of the duties created by the General Ordinance by written resignation filed with the Director of Finance not less than 60 days before the date when such resignation is to take effect. Such resignation shall take effect on the day specified in such notice provided that a successor Fiscal Agent is appointed. If a successor Fiscal Agent is appointed prior to the date specified in the notice, the resignation shall take effect immediately on the appointment of such successor, and the City shall give the required notices described under "Appointment of Successor Fiscal Agent" below.

Appointment of Successor Fiscal Agent

If the Fiscal Agent or any successor Fiscal Agent resigns, is replaced, or is dissolved or if its property or business is taken under the control of any state or federal court or administrative body, a vacancy shall exist in the office of the Fiscal Agent, and the City shall appoint a successor within 30 days of such vacancy and shall mail notice of such appointment to the Bondholders and to the registered depositories at their registered addresses by first class mail, postage prepaid, within 30 days of such appointment.

Defaults and Statutory Remedies; Notice to Bondholders

If the City shall fail or neglect to pay or to cause to be paid the principal of, redemption premium, if any, or interest on any Bond or any Series of Bonds issued under the General Ordinance, whether at stated maturity or upon call for prior redemption, or if the City, after written notice to it, shall fail or neglect to make any payment owed by it as a result of a Credit Facility or Qualified Swap entered into with respect to Bonds and the provider of the Credit Facility or the Qualified Swap Provider provides written notification to the Fiscal Agent of such failure or neglect, or if the City shall fail to comply with any provision of any Bonds or with any covenant of the City contained in the General Ordinance, then, under and subject to the terms and conditions stated in the Act, the Holder or Holders of any Bond or Bonds shall be entitled to all of the rights and remedies, including the appointment of a trustee, provided in the Act; provided, however, that the remedy provided in Section 20(b)(4) of the Act may be exercised only upon the failure of the City to pay, when due, principal and redemption price (including principal due as a result of a scheduled mandatory redemption) and interest on a Series of Bonds.

Upon the occurrence of the event of default described above, or if an event occurs which could lead to a default with the passage of time and of which the Fiscal Agent has notice, the Fiscal Agent is required to, within 30 days, give written notice thereof by first-class mail to all Bondholders.

Remedies Not Exclusive; Effect of Delay in Exercise of Remedies

No remedy contained in the General Ordinance or in the Act conferred upon or reserved to the trustee, if any, or to the Holder of any Bond is intended to be exclusive (except as specifically provided in the Act) of any other remedy or remedies, and each and every such remedy shall be cumulative, and shall be in addition to every other remedy given under the General Ordinance or now or hereafter existing at law or in equity or by statute.

No delay or omission of a trustee, if one be appointed pursuant to Section 20 of the Act, or of any Holder of the Bonds to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default, or an acquiescence therein; and every power and remedy provided with respect to an event of default under the General Ordinance, by the Act or otherwise may be exercised from time to time, and as often as may be deemed expedient.

Remedies to be Enforced Only Against Project Revenues

Any decree or judgment for the payment of money against the City by reason of default under the General Ordinance shall be enforceable only against the Project Revenues and the investments thereof and amounts on deposit in the funds and accounts (other than the Rebate Fund) established under the General Ordinance, and no decree or judgment against the City upon an action brought under the General Ordinance shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

Conveyance of System and Assignment, Assumption and Release

The General Ordinance provides that nothing in the General Ordinance is to prevent the City from conveying and assigning to a municipal authority created pursuant to the Municipality Authorities Act of 1945, as amended, or an authority created pursuant to any other applicable statute or to another entity (the "Authority") all or substantially all (or less than substantially all, as provided below) of its right, title and interest in the System and thereupon becoming released from all of its obligations under the General Ordinance, under any Supplemental Ordinance and under the Bonds and related obligations, including, but not limited to, Credit Facilities, Qualified Swaps and Exchange Agreements, (i) if the Authority assumes in writing the City's obligations (1) to operate or cause the System to be operated and to maintain or cause the System to be maintained in good condition; and (2) to pay the principal, redemption premium, if any, and interest on all Bonds issued, and all payments due under Credit Facilities, Qualified Swaps and Exchange Agreements entered into, pursuant to the General Ordinance and then outstanding according to the terms thereof; and (ii) if the instrument of assumption provides the Bondholders or the trustee or entity serving in a similar capacity and acting on behalf of the Bondholders with the substantial equivalent of all of the rights and remedies provided in the General Ordinance and the Act; provided, however, that before the City may consummate such a conveyance and assignment and obtain a release of its obligations under the General Ordinance, under any Supplemental Ordinance and under the Bonds, certain conditions are required to have been satisfied, including, without limitation, (a) the receipt by the City and the Fiscal Agent of certain opinions of counsel, (b) the granting of a security interest by the Authority to the trustee or entity serving in a similar capacity on behalf of the Bondholders, (c) a report of a Consulting Engineer detailing, among other things, continued compliance with covenants relating to Debt Service Requirements and (d) the conveyance and assignment to the Authority of amounts in the funds and accounts established under the General Ordinance. Upon a conveyance of all or substantially all of the assets of the System to the Authority, the General Ordinance provides that the provisions of the General Ordinance are to cease being enforceable against the City.

Amendments and Modifications*

In addition to the enactment of Supplemental Ordinances supplementing or amending the General Ordinance in connection with the issuance of successive Series of Bonds, the General Ordinance provides that the General Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission therein or to make such provisions in regard to matters or questions arising thereunder which shall not be inconsistent with the provisions thereof and which shall not adversely affect the interests of Bondholders; (b) to grant to or confer upon Bondholders, or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred; (c) to incorporate modifications requested by any Rating

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* The provisions described under this heading will be amended upon the consent to the Springing Amendments of 67% of Holders of the outstanding Bonds. See APPENDIX II-B – "Twenty-First Supplemental Ordinance" attached to this Official Statement.

Agency to obtain or maintain a credit rating on any Series of Bonds; (d) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds but no amendment or modification shall be made with respect to any Outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected Outstanding Bonds; and (e) except as aforesaid, in such other respect as may be authorized in writing by the Holders of 67% in principal amount or Original Value in the case of Capital Appreciation Bonds of the Bonds Outstanding and affected. In the case of a Credit Facility or Qualified Swap, if and to the extent provided in the Supplemental Ordinance and Determination of Bonds related thereto, the provider thereof may be the representative of the Bondholders of such Series or portion of such Series for purposes of Bondholder consent, approval or authorization. The written authorization of Bondholders of any supplement to or modification or amendment of the General Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof. Bonds, the payment for which has been provided for upon the redemption thereof, are to be deemed to be not Outstanding.

Deposit of Funds for Payment of Bonds

When interest on, and principal or redemption price (as the case may be) of, all Bonds issued under the General Ordinance, and all amounts owed under any Credit Facility, Qualified Swap and Exchange Agreement entered into under the General Ordinance, have been paid, or there shall have been deposited with the Fiscal Agent or an entity which would qualify as a Fiscal Agent under the General Ordinance an amount, evidenced by moneys or Qualified Escrow Securities the principal of and interest on which, when due, will provide sufficient moneys to fully pay the Bonds at the maturity date or date fixed for redemption thereof, and all amounts owed under any Credit Facility, Qualified Swap and Exchange Agreement entered into under the General Ordinance, the pledge and grant of a security interest in the Project Revenues made under the General Ordinance shall cease and terminate, and the Fiscal Agent and any other depository of funds and accounts established under the General Ordinance shall turn over to the City or to such person, body or authority as may be entitled to receive the same all balances remaining in any such funds and accounts established under the General Ordinance.

If the City deposits with the Fiscal Agent or such other qualified entity moneys or Qualified Escrow Securities sufficient to pay the principal or redemption price of any particular Bond or Bonds becoming due, either at maturity or by call for redemption or otherwise, together with all interest accruing thereon to the due date, interest on the Bond or Bonds shall cease to accrue on the due date and all liability of the City with respect to such Bond or Bonds shall likewise cease, except as provided in the following paragraph. Thereafter such Bond or Bonds shall be deemed not to be outstanding under the General Ordinance and shall have recourse solely and exclusively to the funds so deposited for any claims of whatsoever nature with respect to such Bond or Bonds, and the Fiscal Agent or such other qualified entity shall hold such funds in trust for such Holder or Holders.

Moneys deposited with the Fiscal Agent or such other qualified entity pursuant to the preceding paragraphs which remain unclaimed two years after the date payment thereof becomes due shall, upon written request of the City, if the City is not at the time to the knowledge of the Fiscal Agent or such other qualified entity (the Fiscal Agent having no responsibility to independently investigate), in default with respect to any covenant in the General Ordinance or the Bonds contained, be paid to the City; and the Holders of the Bonds for which the deposit was made shall thereafter be limited to a claim against the City; provided, however, that before making any such payment to the City, the Fiscal Agent or such other qualified entity shall, at the expense of the City, publish in a newspaper of general circulation published in Philadelphia, Pennsylvania, a notice that said moneys remain unclaimed and that, after a date named in said notice, which date shall be not less than 30 days after the date of publication of such notice, the balance of such moneys then unclaimed will be paid to the City.

The provisions regarding the deposit of funds for the payment of Bonds stated above are not be construed to limit the procedure set forth in Section 10 of the Act for calculating the principal or redemption price of and interest on any Bonds for the purpose of ascertaining the sufficiency of revenues for the purpose of Sections 7(a)(5) and 8(a)(iii) of the Act and for the purpose of determining the outstanding net debt of the City if General Obligation Bonds of the City are refunded pursuant to the Act.

Maintenance of Tax Exempt Status of Bonds

No deposit of funds for the payment of bonds shall be made if, in the opinion of Bond Counsel, such action shall cause the interest on any Series of Bonds initially issued as tax exempt Bonds, to become subject to Federal income tax.

Nothing contained in the General Ordinance shall require any Series of Bonds to be structured so that interest on such Bonds will be excluded from income of the Holders thereof for the purpose of calculating Federal income tax; provided that the provisions contained in the General Ordinance are satisfied.

Interested Parties

The General Ordinance provides that nothing in the General Ordinance expressed or implied is intended or is to be construed to confer upon, or to give to, any person or corporation, other than the City, the Owners of the Bonds, the Fiscal Agent, each provider of a Credit Facility, and Qualified Swap, Standby Agreement and Remarketing Agreement, any right, remedy or claim under or by reason of the General Ordinance or any covenants, condition or stipulation thereof; and all the covenants, stipulations, promises and agreements in the General Ordinance contained by and on behalf of the City shall be for the sole and exclusive benefit of the City, the Fiscal Agent, the Owners of the Bonds, each provider of a Credit Facility, Qualified Swap, Standby Agreement and Remarketing Agreement.

Ordinances are Contracts With Bondholders

The General Ordinance and Supplemental Ordinances adopted pursuant to the General Ordinance are contracts with the Holders of all Bonds from time to time Outstanding thereunder and are enforceable in accordance with the provisions of the General Ordinance and the laws of Pennsylvania.

Effectiveness

The General Ordinance provides that it is to become effective as to the holders of Bonds only upon consent in writing of the owners of not less than 67% in principal amount of all Bonds outstanding at the time of such consent.

THE TWENTY-SECOND SUPPLEMENTAL ORDINANCE

The Series 2022C Bonds will be issued under and subject to the Twenty-Second Supplemental Ordinance, which supplements the provisions of the General Ordinance. Reference is made below to the Twenty-Second Supplemental Ordinance and the General Ordinance, which provide more complete details of the terms of the Series 2022C Bonds. All capitalized and defined terms used in the following summary of the Twenty-Second Supplemental Ordinance that are not otherwise defined in this Official Statement are defined as in the General Ordinance.

Authorization, Scope and Purpose

The Twenty-Second Supplemental Ordinance was enacted pursuant to the Act and constitutes a Supplemental Ordinance enacted for the purpose of authorizing one or more Series of Bonds within the meaning of the General Ordinance.

The Twenty-Second Supplemental Ordinance authorizes the Bond Committee on behalf of the City to borrow, by the issuance and sale of one or more series or subseries of Bonds of the City, a sum or sums which in the aggregate principal amount shall not exceed eight hundred million dollars ($800,000,000), exclusive of original issue discount; and in the event such Bonds are issued with original issue discount, the Bond Committee is authorized to increase the aggregate principal amount of such Bonds so issued by the amount of such original issue discount. Proceeds of such Bonds may be expended for the purposes of (i) constructing, acquiring, reconstructing and renovating wastewater treatment plants and related facilities and equipment for the sewer system; (ii) constructing, acquiring, reconstructing and renovating water treatment plants and related facilities and equipment for the water system; (iii) constructing, acquiring, reconstructing and replacing water, wastewater and stormwater pipes, pumping stations and related facilities; (iv) purchasing equipment and apparatus of a capital nature for the water and wastewater systems; (v) constructing, acquiring, reconstructing and renovating stormwater management and mitigation improvements and facilities and other improvements and facilities in furtherance of the City's Combined Sewer Overflow (CSO) Long Term Control Plan Update (referred to as the Green City, Clean Waters Program) dated September 1, 2009, as permitted under the Act and the General Ordinance; (vi) purchasing vehicles that serve the water and wastewater system, all as included in capital budgets of the City; (vii) paying any other Project Costs as such term is defined in the Act, including capitalized interest; (viii) making certain deposits with the Fiscal Agent; and (e) paying the issuance costs of such Bonds (including the Series 2022C Bonds).

In accordance with the General Ordinance, the Bond Committee shall approve the final terms of Bonds issued under the Twenty-Second Ordinance (including the Series 2022C Bonds) in one or more Determinations of the Bond Committee (each a "Determination") prior to, and as a condition of, the issuance of any series of such Bonds. Any such Determination shall be deemed a supplement to the Twenty-Second Supplemental Ordinance.

The Bond Committee is authorized on behalf of the City to enter into Enhancement Agreements (as specified in a Determination) with any Provider for the account of the City for any Series of Bonds issued under the Twenty-Second Supplemental Ordinance (including the Series 2022C Bonds), including, without limitation, letters of credit, liquidity and credit facilities, and bond insurance. Such Enhancement Agreements may provide for payment of the principal or purchase price of or interest on such Bonds if the City does not pay such Bonds when due and may provide for repayment with interest to the Provider from the date of such payment.

The Twenty-Second Supplemental Ordinance authorizes the Bond Committee or the Director of Finance, as appropriate, to make all such covenants and to take any and all such other actions on behalf of the City as may be necessary or appropriate in connection with the consummation of the transactions contemplated in the Twenty-Second Supplemental Ordinance.

Terms of the Bonds

The Twenty-Second Supplemental Ordinance provides that Bonds issued thereunder (including the Series 2022C Bonds) shall be sold either at public competitive sale to the highest bidder or bidders or at a private negotiated sale, as the Bond Committee shall determine to be in the best interest of the City. Such Bonds may be sold in one or more Series or, as authorized by the General Ordinance and as specified by the Determination, in one or more subseries, each of which shall be deemed a Series for purposes of the General Ordinance and shall be designated by letter as a Series of Bonds of the year in which such Series is issued, and may include serial bonds, terms bonds, Capital Appreciation Bonds or derivative financial instruments as specified in the Determination.

The Twenty-Second Supplemental Ordinance provides that Bonds issued thereunder (including the Series 2022C Bonds) shall not pledge the credit or taxing power of the City, or create any debt, charge or lien against the tax, general revenues or property of the City other than the revenues pledged by the General Ordinance.

Deposit of Bond Proceeds

As provided in the General Ordinance, accrued interest, if any, on Bonds issued under the Twenty-Second Supplemental Ordinance (including the Series 2022C Bonds) shall be deposited in the Sinking Fund. Remaining proceeds of such Bonds shall be deposited first in the Debt Reserve Account in an amount equal to the Debt Reserve Requirement to the extent that such requirement is not satisfied in whole or in part by available funds of the City or by a surety bond, insurance policy or letter of credit in accordance with the General Ordinance; all other proceeds and other moneys currently on deposit under the General Ordinance, including current reserves and construction funds, shall be deposited or transferred as provided in a certificate of the Director of Finance.

Requirements of the Act

Under the Twenty-Second Supplemental Ordinance, in accordance with the Act, it is determined that the pledged Project Revenues will be sufficient to: (a) comply with the Rate Covenant and (b) pay all costs, expenses and payments required to be paid from pledged Project Revenues in the order and priority stated in the General Ordinance.

Prior to enactment of the Twenty-Second Supplemental Ordinance by City Council, an opinion of the City Solicitor was filed with the City Council pursuant to the Act.

Payments from the Sinking Fund

The City covenants in the Twenty-Second Supplemental Ordinance that, so long as any Bonds issued thereunder (including the Series 2022C Bonds) shall remain outstanding, it will make payments or cause payments to be made out of the Sinking Fund established pursuant to the General Ordinance or any of the other Water and Wastewater funds available therefor, at such times and in such amounts as shall be sufficient for the payment of the interest (including the Qualified Swap payments if any) on such Bonds and the principal thereof when due.

Tax Covenants

The Twenty-Second Supplemental Ordinance authorizes the Director of Finance and any other applicable City officer to make such additional covenants and to take such other action with respect to the use and investment of the proceeds of the Bonds issued thereunder (including the Series 2022C Bonds) as may be necessary or advisable in order that such Bonds shall not be "arbitrage bonds" as defined in Section 148 of the Internal Revenue Code of 1986, as amended (the "Code"), that the City will comply with the requirements of Section 148 throughout the terms of such Bonds as described in the Determination and in order to otherwise effect or maintain the exclusion of interest on such Bonds from gross income of the holders thereof for federal income tax purposes, and further to establish such sub-accounts within the Sinking Fund and terms or restrictions to permit issuance of such Bonds.

Continuing Disclosure

The Twenty-Second Supplemental Ordinance authorizes the Director of Finance to execute and deliver a Continuing Disclosure Agreement meeting the requirements of Rule 15c2-12 promulgated under Securities Exchange Act of 1934. The City covenants and agrees that it will comply with and carry out all of the provisions of such Continuing Disclosure Agreement.

APPENDIX II-B

TWENTY-FIRST SUPPLEMENTAL ORDINANCE

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City of Philadelphia

(Bill No. 171110-A)

AN ORDINANCE

Constituting the Twenty-First Supplemental Ordinance to the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended and supplemented (the "General Ordinance"), providing for certain amendments to the General Ordinance under certain terms and conditions.

THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:

SECTION 1. *Amendment of Section 2.01 of the General Ordinance*. Section 2.01 of the Restated General Water and Wastewater Revenue Bond Ordinance of 1989, as amended and supplemented (the "General Ordinance"), entitled *Definitions* is hereby amended, as follows.

(a) The defined term "Balloon Bonds" is added after "Act" as set forth below.

> "Balloon Bonds" means any Series of Bonds, or any portion of a Series of Bonds, designated by a Determination as Balloon Bonds, (a) 25% or more of the principal payments (including mandatory sinking fund payments) of which are due in a single year, or (b) 25% or more of the principal of which may, at the option of the holder or holders thereof, be redeemed at one time; provided, however that a Variable Rate Bond that is able to be redeemed at the option of the Holder shall not constitute a Balloon Bond.

(b) The definition of "Credit Facility" is restated in its entirety as set forth below.

> "Credit Facility" means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution.

(c) The defined term “Debt Reserve Facility” is added after “Debt Reserve Account” as set forth below.

> “Debt Reserve Facility” has the meaning set forth in Section 4.09(e) hereof.

(d) The definition of “Debt Reserve Requirement” is restated in its entirety as set forth below.

> “Debt Reserve Requirement” means (i) with respect to all Bonds outstanding (regardless whether interest thereon may be excluded from the gross income of the holder thereof for federal income tax purposes) (a) whose Debt Service Requirements are payable from the Sinking Fund (i.e., excluding Subordinated Bonds) and (b) that are of a Series for which the City has not created a Series Debt Reserve Subaccount, an amount equal to the greatest amount of Debt Service Requirements on such Bonds payable in any one Fiscal Year (except that such Debt Service Requirements will be computed as if any Qualified Swap did not exist and the Debt Service Requirements attributable to any Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Supplemental Ordinance or Determination for such Bonds) determined as of any particular date, and (ii) with respect to the amount to be deposited in the Debt Reserve Account, pursuant to the first paragraph of Section 4.09 hereof, in connection with the issuance of such a Series of Bonds, the lesser of (x) the amount necessary to comply clause (i) and (y) the maximum amount permitted to be financed with proceeds of Bonds permitted by Section 148(d)(1) the Code (or any successor provision).

(e) The definition of “Debt Service Requirements” is restated in its entirety as set forth below.

> “Debt Service Requirements,” with reference to a specified period, means:
>
> A. amounts required to be paid into any mandatory sinking fund established for the benefit of Bonds during the period;

B. amounts needed to pay the principal or redemption price of Bonds maturing during the period and not to be redeemed at or prior to maturity through any sinking fund established for the Bonds;

C. interest payable on Bonds during the period, with adjustments for capitalized interest or redemption through any sinking fund established for the benefit of Bonds; and

D. all net amounts, if any, due and payable by the City under a Qualified Swap during such period.

For purposes of estimating Debt Service Requirements for any future period, (i) any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond tendered for payment and cancellation before its stated maturity date shall be deemed to accrue on the date required for payment pursuant such tender; and (ii) Debt Service Requirements on Bonds for which the City has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed or variable rate on the Qualified Swap or, if applicable and if greater such stated rate, the applicable rate for any Bonds issued in connection with the Qualified Swap adjusted, the case of a variable rate obligation, as provided in Section 5.01 hereof. Calculation of Debt Service Requirements with respect to Variable Rate Bonds and Balloon Bonds shall be subject to adjustment as permitted by Section 5.01(c) hereof.

(f) The defined term “Kroll” is added after “Interim Debt” as set forth below.

“Kroll” means Kroll Bond Rating Agency, Inc. and any successor thereto.

(g) The definition of “Rating Agency” is restated in its entirety as set forth below.

“Rating Agency” means any rating service that has issued a credit rating on the Bonds which is in effect at the time in question or, upon discontinuance of any of such rating services, such other nationally recognized rating service or services if any such rating service has issued a credit rating on the Bonds at the request of the City and such credit rating is in effect at the time in question."

(h) The defined term "Series Debt Reserve Requirement" is added after "Series" as set forth below.

"Series Debt Reserve Requirement" means, for any Series of Bonds, the amount, if any, required pursuant to a Supplemental Ordinance or Determination to be reserved and (if such amount is greater than zero dollars ($0)) deposited or maintained in the Series Debt Reserve Subaccount established for such Series of Bonds; provided that such amount may equal zero dollars ($0); and provided further that such amount may not exceed the lesser of (i) the greatest amount of Debt Service Requirements payable on such Series of Bonds in any one Fiscal Year and (ii) the maximum amount permitted to be financed with proceeds of such Series of Bonds permitted by Section 148(d)(1) the Code (or any successor provision).

(i) The defined term "Series Debt Reserve Subaccount" is added after "Series Debt Reserve Requirement" as set forth below.

"Series Debt Reserve Subaccount" means any subaccount of the Debt Reserve Account created, pursuant to a Supplemental Ordinance or Determination for a particular Series of Bonds, which Series of Bonds will not otherwise be secured by the Debt Reserve Account and for which a Series Debt Reserve Requirement applies.

(j) The definition of "Substitute Credit Facility" is restated in its entirety as set forth below.

"Substitute Credit Facility" means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that replaces a Credit Facility and is provided by a commercial bank, insurance company or other financial institution."

SECTION 2. *Amendment of Section 4.09 of General Ordinance*. Section 4.09 of the General Ordinance is restated in its entirety as set forth below.

Section 4.09. *Debt Reserve Account*.

(a) Unless otherwise provided in the applicable Supplemental Ordinance in compliance with this Section 4.09, the City shall, under direction of the Director of Finance, deposit in the Debt Reserve Account from the proceeds of sale of each Series of Bonds issued hereunder, an amount which, when added to the existing balance in the Debt Reserve Account, will be equal to the Debt Reserve Requirement immediately after the issuance of such Series of Bonds. The money and investments in the Debt Reserve Account shall be held and maintained in an amount equal at all times to the Debt Reserve Requirement; provided that if the Supplemental Ordinance authorizing a Series of Bonds shall authorize the accumulation from Project Revenues of a reserve of such amount in respect of such Bonds over a period of not more than three (3) Fiscal Years after the issuance and delivery of such Bonds, then the full payment of the annual deposits required under such Supplemental Ordinance will meet the Debt Reserve Requirements of this Ordinance in respect of such Bonds.

(b) Notwithstanding any provision of subsection (a) of this Section 4.09 to the contrary, a Supplemental Ordinance may provide for the establishment of a Series Debt Reserve Requirement for each Series of Bonds issued pursuant to such Supplemental Ordinance, and a separate Series Debt Reserve Subaccount (if such Series Debt Reserve Requirement is greater than zero dollars ($0)) within the Debt Reserve Account in respect of such Series of Bonds. The City shall not designate a Series Debt Reserve Requirement for a Series of Bonds unless (i) such Series of Bonds will be refunding Bonds issued pursuant to Section 5.04(g) hereof, or (ii) the City first obtains written confirmation from any one Rating Agency then rating the Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Bonds Outstanding hereunder. The City shall deposit in the Series Debt Reserve Subaccount created pursuant to any Supplemental Ordinance, the Series Debt Reserve Requirement for such Series of Bonds. The money and investments in each Series Debt Reserve Subaccount shall be held and maintained in an amount equal at all times to the Series Debt Reserve Requirement for such Series secured thereby, as provided in the Supplemental Ordinance authorizing such Series of Bonds. All amounts in each Series Debt Reserve Subaccount shall be available solely to secure and pay the Debt Service Requirements of the Bonds for which such subaccount was created pursuant to such Supplemental Ordinance; and the Holders of such Bonds shall otherwise have no interests in or rights to amounts in the Debt Reserve Account.

(c) If at any time and for any reason, the moneys 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 Bond or Bonds or other obligations payable from the Debt Service Account then due (including under Swap Agreements and Credit Facilities), the Fiscal Agent is hereby authorized and directed to withdraw from the Debt Reserve Account or, as applicable, any Series Debt Reserve Subaccount, and pay over the amount of such deficiency for deposit in the Debt Service Account to pay such obligations. If by reason of such withdrawal or for any other reason there shall be a deficiency in the Debt Reserve Account or a Series Debt Reserve Subaccount, the City hereby covenants to restore such deficiency promptly from Net Revenues; provided that in the event that there simultaneously shall be deficiencies in the Debt Reserve Account and one or more Series Debt Reserve Subaccounts, the City hereby covenants to restore such deficiencies from Net Revenues on a pari passu basis, based on the Debt Reserve Requirement and the Series Debt Reserve Requirement(s) outstanding; and provided further, that notwithstanding the preceding proviso, the Supplemental Ordinance or Determination pursuant to which a Series Debt Reserve Requirement is established may provide for the restoration of such a deficiency in the related Series Debt Reserve Subaccount from Net Revenues on a less than pari passu basis for the related Series of Bonds.

(d) (i) Subject to the provisions of Section 4.09(d)(ii) and Section 4.09(e), any moneys in the Debt Reserve Account or any Series Debt Reserve Subaccount in excess of, respectively, the Debt Reserve Requirement or the Series Debt Reserve Requirement, shall be transferred and applied, at the written direction of the City, to any of the following purposes:

(A) to the Debt Service Account, to pay the Debt Service Requirements on Bonds secured by such account or subaccount, including without limitation redemption price in connection with the optional redemption of any such Bonds; or

(B) to an escrow fund or account established to facilitate the payment of Bonds pursuant to Section 11.01 hereof, to pay the Debt Service Requirements on Bonds secured by such account or subaccount, including without limitation redemption price in connection with the optional redemption of any such Bonds; or

(C) if such moneys do not constitute tax-exempt bond proceeds, to the Residual Fund for the purposes thereof.

(ii) In connection with the issuance of refunding Bonds pursuant to Section 5.04(g) hereof, the City may transfer amounts from the Debt Reserve Account or a Series Debt Reserve Subaccount held by the Fiscal Agent in respect of the Bonds being refunded to the Debt Reserve Account or a Series Debt Reserve Subaccount to satisfy any debt reserve requirements in respect of such refunding Bonds.

(e) Notwithstanding the foregoing provisions, in lieu of the required deposits into the Debt Reserve Account or any Series Debt Reserve Subaccount thereof, the City may cause to be deposited therein a surety bond or an insurance policy payable to the Fiscal Agent for the account of the Bondholders and any Qualified Swap or an irrevocable letter of credit to be benefitted thereby in an amount equal to the difference between the Debt Reserve Requirement or the Series Debt Reserve Requirement and the remaining sums, if any, then on deposit in the Debt Reserve Account or Series Debt Reserve Subaccount. The surety bond, insurance policy or letter of credit (hereinafter referred to, collectively, as the "Debt Reserve Facility") shall be payable (upon the giving of notice as required thereunder) on any interest payment date on which moneys will be required to be withdrawn from the Debt Reserve Account or Series Debt Reserve Subaccount and applied to the payment of Debt Service Requirements of the Bonds secured thereby if such withdrawal cannot be met by amounts on deposit in the Debt Reserve Account or Series Debt Reserve Subaccount, or provided from any other Fund under this Ordinance.

If a disbursement is made pursuant to a surety bond, an insurance policy or a letter of credit provided pursuant to this subsection, the City shall be obligated either (i) to reinstate the maximum limits of the surety bond insurance policy or letter of credit or (ii) to deposit into the Debt Reserve Account or applicable Series Debt Reserve Subaccount, funds in the amount of the disbursement made under such surety bond insurance policy or letter of credit, or combination of such alternatives, as shall provide that the amount in the Debt Reserve Account or applicable Series Debt Reserve Subaccount equals the Debt Reserve Requirement or the Series Debt Reserve Requirement within a time period not longer than would be required to restore the Debt Reserve Account or the Series Debt Reserve Requirement by operation of this Section 4.09 and from the same source of funds as provided herein.

The insurer providing a surety bond or insurance policy pursuant to this subsection (e) shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in not lower than the "A" category (without regard to gradations) by any one Rating Agency. The letter of credit issuer providing a letter of credit pursuant to this subsection (e) shall be a bank or trust company that is rated not lower than the "A" category (without regard to gradations) by any one Rating Agency; and the letter of credit itself shall be rated in at least "A" category of such Rating Agency. Upon the occurrence of any reduction or suspension of any credit rating with respect to such bond insurance policy or letter of credit or the provider thereof) required by this Section 4.09, the City shall so notify the provider of the surety, bond insurance policy or letter of credit and prior to the effective date of any cancellation of such surety, bond insurance policy or letter of credit, shall either provide a substitute surety bond, insurance policy or letter of credit rating requirements of this Section 4.09 or shall deposit cash in the Debt Reserve Account or applicable Series Debt Reserve Subaccount so that the amount in such account or subaccount shall equal the Debt Reserve Requirement or Series Debt Reserve Requirement, respectively.

In the event that after the City has deposited cash as required in connection with a Debt Reserve Facility rating reduction or suspension, but prior to any cancellation thereof, such Debt Reserve Facility meets the rating criteria set forth in this subsection for deposit, no excess of the Debt Reserve Requirement shall result for purposes of Section 4.09(d) hereof.

SECTION 3. *Amendment of Section 5.01 of General Ordinance.* Section 5.01 of the General Ordinance is restated in its entirety as set forth below.

Section 5.01. *Rate Covenant.*

(a) The City covenants with the Bondholders that it will, at a minimum, impose, charge and collect in each Fiscal Year such water and wastewater rents, rates, fees and charges as shall yield Net Revenues which shall be equal to at least:

(i) 1.20 times the Debt Service Requirements for such Fiscal Year (excluding Debt Service Requirements in respect of Subordinated Bonds); and

(ii) 0.90 times Debt Service Requirements for such Fiscal Year (excluding Debt Service Requirements in respect of Subordinated Bonds); provided that, for purposes of this clause (ii), Net Revenues shall be calculated to exclude therefrom any amounts transferred from the Rate Stabilization Fund to the Revenue Fund in, or as of the end of, such Fiscal Year; and

(iii) 1.00 times (A) the Debt Service Requirements for such Fiscal Year (including Debt Service Requirements in respect of Subordinated Bonds); (B) amounts required to be deposited into the Debt Reserve Account during such Fiscal Year; (C) the principal or redemption price of and interest on General Obligation Bonds payable during such Fiscal Year; (D) debt service requirements on Interim Debt payable during such Fiscal Year; and (E) the Capital Account Deposit Amount for such Fiscal Year (less any amounts transferred from the Residual Fund to the Capital Account during such Fiscal Year).

(b) In estimating Debt Service Requirements on any Interim Debt for the purposes of projecting compliance with this Section, the City shall be entitled to assume that (i) such Interim Debt will be amortized over a period of up to the maximum term permitted by the Act, provided, however, such period shall not be in excess of the useful life of the assets to be financed, on an approximately level debt service basis and bear interest at the average interest rate on bonds of a similar maturity and credit rating (without any credit enhancement) as the Bonds outstanding under this Ordinance. Promptly upon ·any material change in the circumstances which were contemplated at the time such rents, rates, fees and charges were most recently reviewed, but not less frequently than once in each Fiscal Year, the City shall review the rents, rates, fees and charges as necessary to enable the City to comply with the foregoing requirements; provided that such rents, rates, fees and charges shall in any event produce moneys sufficient to enable the City to comply with its covenants in this Ordinance.

(c) In estimating Debt Service Requirements on any Variable Rate Bonds for purposes of projecting compliance with this Section or funding the Reserve Account, the City shall be 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.

(d) The City represents that it has, by its Code of General Ordinances, as amended, authorized the imposition of rents, rates, fees and charges by the Water Department sufficient from time to time to comply with the Rate Covenant and covenants with the Holders of Bonds that it will not repeal or materially adversely dilute or impair such authorization.

SECTION 4. *Amendment of Section 5.01(c) of General Ordinance*. Section 5.01 of the General Ordinance is further amended by restating subsection (c) thereof in its entirety as set forth below.

(c)(i) In the event that any Bonds Outstanding are, or any proposed Series of Bonds are to be, Balloon Bonds, then Debt Service Requirements on such Balloon Bonds shall be calculated for purposes of projecting compliance with this Section and Section 5.04, or for purposes of determining the Debt Reserve Requirement or Series Debt Reserve Requirement (as applicable) for a particular Series of Balloon Bonds, whether for any period prior to or after the date of calculation, as follows.

(A) If such Balloon Bonds are not Capital Appreciation Bonds, then, for purposes of determining Debt Service Requirements, each maturity that constitutes Balloon Bonds shall, unless otherwise provided in a Supplemental Ordinance under which such Balloon Bonds are issued, be treated as if it were to be amortized over a period of no more than 30 years and with substantially level annual debt service funding payments commencing not later than the year following the year in which such Balloon Bonds were issued, and extending not later than the stated or deemed, as the case may be, final maturity of such Balloon Bonds, but in no event later than 30 years from the date such Balloon Bonds were originally issued; and the interest rate used for such computation shall be that rate quoted in The Bond Buyer 25 Revenue Bond Index, or its successor or replacement index, for the last week of the month preceding the date of calculation as published by *The Bond Buyer,* or if that index is no longer published, another similar index designated in a Determination, or if a Determination fails to select a replacement index, that rate determined by a banking institution or an investment banking institution as the interest rate or rates at which the City could reasonably expect to borrow by incurring indebtedness with the same term as assumed above, with no credit enhancement and taking into consideration whether such Bonds bear interest which is or is not excluded from gross income for federal income tax purposes; with respect to any Bonds only a portion of which constitutes Balloon Bonds, the remaining portion shall be treated as described in such other provision of the definition of Debt Service Requirements as shall be applicable and, with respect to any Bonds or that portion of a series thereof which constitutes Balloon Bonds, all Debt Service Requirements becoming due prior to the year of the stated maturity of the Balloon Bonds shall be treated as described in such other provision of Debt Service Requirements as shall be applicable; and

(B) If such Balloon Bonds are Capital Appreciation Bonds, by assuming that the Accreted Value of such Bonds for purposes of determining Debt Service Requirements, each maturity that constitutes Balloon Bonds shall, unless otherwise provided in a Supplemental Ordinance under which such Balloon Bonds are issued, be treated as if it were to be amortized over a period of no more than 30 years and with substantially level annual debt service funding payments commencing not later than the year following the year in which such Balloon Bonds were issued, and extending not later than the stated or deemed, as the case may be, final maturity of such Balloon Bonds, but in no event later than 30 years from the date such Balloon Bonds were originally issued; and the interest rate used for such computation shall be that rate quoted in The Bond Buyer 25 Revenue Bond Index, or its successor or replacement index, for the last week of the month preceding the date of calculation as published by *The Bond Buyer*, or if that index is no longer published, another similar index designated in a Determination, or if a Determination fails to select a replacement index, that rate determined by a banking institution or an investment banking institution as the interest rate or rates at which the City could reasonably expect to borrow by incurring indebtedness with the same term as assumed above, with no credit enhancement and taking into consideration whether such Bonds bear interest which is or is not excluded from gross income for federal income tax purposes; with respect to any Bonds only a portion of which constitutes Balloon Bonds, the remaining portion shall be treated as described in such other provision of the definition of Debt Service Requirements as shall be applicable and, with respect to any Bonds or that portion of a series thereof which constitutes Balloon Bonds, all Debt Service Requirements becoming due prior to the year of the stated maturity of the Balloon Bonds shall be treated as described in such other provision of Debt Service Requirements as shall be applicable.

(ii) In estimating Debt Service Requirements on any Variable Rate Bonds for purposes of projecting compliance with this Section or funding the Reserve Account, the City shall be entitled to assume that such Variable Rate Bonds will bear interest at a rate equal to (A) 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 (B) 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 (C) such other rate as may be specified in a Supplemental Ordinance or Determination.

SECTION 5. *Amendment of Section 10.01 of General Ordinance*. Section 10.01 of the General Ordinance is restated in its entirety as set forth below.

Section 10.01. *Amendments and Modifications.* In addition to the enactment of Supplemental Ordinances supplementing or amending this Ordinance in connection with the issuance of successive Series of Bonds, this Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission herein or therein or to make such provisions in regard to matters or questions arising hereunder or thereunder which shall not be inconsistent with the provisions hereof or thereof and which shall not adversely affect the interests of Bondholders; (b) to grant to or confer upon Bondholders, or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred; (c) to

> incorporate modifications requested by any Rating Agency or Credit Facility provider to obtain or maintain a credit rating on any Series of Bonds; (d) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds; provided however that no amendment or modification discussed in parts (a)-(d) of this Section 10.01 shall be made with respect to any Outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected Outstanding Bonds; and (e) except as aforesaid, in such other respect as may be authorized in writing by the Holders of a majority in principal amount or Original Value in the case of Capital Appreciation Bonds of the Bonds Outstanding and affected. In the case of a Credit Facility, Standby Agreement or Qualified Swap, if and to the extent provided in the Supplemental Ordinance and Determination of Bonds related thereto, the provider thereof may be the representative of the Bondholders of such Series or portion of such Series for purposes of Bondholder consent, approval or authorization. The written authorization of Bondholders of any supplement to or modification or amendment of this Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof. Bonds, the payment for which has been provided for in accordance with Section 6.04 hereof, shall be deemed to be not Outstanding.

SECTION 6. *Other Elections Under the General Ordinance*. The Bond Committee is authorized on behalf of the City, without any further action by City Council, to make any and all additional elections under the General Ordinance as it shall determine to be in the best interest of the City as and when it shall deem such elections to be appropriate.

SECTION 7. *Effect of Ordinance*. This Ordinance is amendatory and supplementary to the General Ordinance and all sections of the General Ordinance and the Act not inconsistent herewith shall remain effective. All definitions of terms contained in the General Ordinance shall apply to such terms in this Ordinance, except to the extent they are amended by this Ordinance. No further action of City Council is necessary for this Ordinance to become effective. Sections 1(c), 1(d) and 1(f), Section 3 and Section 7 shall become effective immediately. Notwithstanding Section 8, the amendments set forth in Sections 1 through 5 (except Sections 1(c), 1(d) and 1(f) and Section 3) shall become effective upon the consent of the Holders of at least sixty- seven percent (67%) of the Outstanding Bonds (the “67% Effective Date”). The City, through the Director of Finance, shall publish notice of the 67% Effective Date to all Holders upon the occurrence of the consent of at least sixty-seven percent (67%) of the Outstanding Bonds. Publication through the Electronic Municipal Market Access System (EMMA) or such other nationally recognized municipal securities information repository shall constitute an acceptable mode of publication.

SECTION 8. *Effective Date*. Subject to the provisions of Section 7, this Ordinance shall take effect immediately.

CERTIFICATION: This is a true and correct copy of the original Bill, Passed by the City Council on April 12, 2018. The Bill was Signed by the Mayor on April 24, 2018.

Michael A. Decker

Michael A. Decker
Chief Clerk of the City Council

APPENDIX III

GOVERNMENT AND FINANCIAL INFORMATION OF THE CITY OF PHILADELPHIA

The Bonds are payable solely from Project Revenues and monies deposited in the water and wastewater funds. The Bonds are special 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. This APPENDIX III is included for purposes of providing general financial information regarding the City.

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OVERVIEW

The City of Philadelphia (the "City" or "Philadelphia"), located along the southeastern border of the Commonwealth of Pennsylvania (the "Commonwealth" or "Pennsylvania"), is the largest city in the Commonwealth and the sixth largest city in the United States with approximately 1.6 million residents (based on 2021 estimates). According to the 2020 U.S. Census, the City increased its population by 4.9% to 1.6 million residents in the ten years from 2011 to 2020. The City is also the center of the United States' seventh largest metropolitan statistical area, which is an 11-county area encompassing the City, Camden, NJ, and Wilmington, DE and represents approximately 6.23 million residents (based on 2021 estimates).

The City benefits from its strategic geographical location, relative affordability, cultural and recreational amenities, and its growing strength in key industries. The City's economy is composed of diverse industries, with virtually all classes of industrial and commercial businesses represented. The City is a major regional business and personal services center with strengths in insurance, law, finance, healthcare, higher education, utilities, and the arts. In addition, the City is a center for health, education, research and science facilities with the nation's largest concentration of healthcare resources within a 100-mile radius.

The cost of living in the City is relatively moderate and affordable compared to other major metropolitan areas in the northeast United States. The City, as one of the country's education centers, offers its business community a large and diverse labor pool that draws from major universities including, within the geographical boundaries of the City, the University of Pennsylvania ("Penn"), Temple University, Drexel University, St. Joseph's University, and LaSalle University, among others.

Fiscal Health of the City

The City has implemented several strategies to address significant fiscal challenges, including the novel coronavirus ("COVID-19") pandemic, for Fiscal Year 2022 and over the course of Fiscal Years 2023-2027, which are described in the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan (all as defined herein), as applicable.

COVID-19: On January 31, 2020, the United States Department of Health and Human Services declared a public health emergency for the United States to aid the nation's health care community in responding to COVID-19. On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic, and on March 13, 2020, the President of the United States declared a national state of emergency.

Due to the increase in the number of COVID-19 cases, federal, state, and local bodies enacted legislation, and other administrative orders, directives, and guidance to mitigate the impacts of COVID-19 on the general population and the economy. In March 2020, the Commonwealth was placed under a disaster emergency order as issued by the Governor of Pennsylvania (the "Governor"). By April 1, 2020, stay-at-home orders were in place for the entire Commonwealth. The Commonwealth's restrictions in the stay-at-home orders were modified, as circumstances permitted, and all of the Commonwealth's COVID-19 restrictions were lifted as of June 28, 2021.

The Mayor also implemented various emergency measures and other actions to respond to the spread of COVID-19 in the City, including the City's own stay-at-home order. All of the City's COVID-19 restrictions were lifted as of June 11, 2021. City offices fully reopened to both employees and the public on July 6, 2021.

As a result of COVID-19 variants and surges in cases, aspects of the foregoing emergency measures and actions in the Commonwealth and the City, including mask mandates and restrictions on indoor gatherings, have been reinstituted for periods of time depending on the then-current health and safety conditions.

In the City, there have been more than 336,700 cases confirmed cases of COVID-19, resulting in over 5,100 deaths (as of July 4, 2022). The approval by the United States Food and Drug Administration of vaccines from three manufacturers for general use and the City's high vaccination rate have helped limit the duration of the COVID-19 pandemic. In the City, vaccine distribution for frontline healthcare workers began in mid-January 2021. Over the next several months, Philadelphians had access to the COVID-19 vaccinations based on a phased schedule of priority populations informed by guidance from the Centers for Disease Control and Prevention. Currently, all Philadelphians six months of age and older are eligible to receive the COVID-19 vaccinations. As of June 21, 2022, the City Health Department reports more than 1,281,800 fully vaccinated Philadelphians and more than 297,900 partially vaccinated Philadelphians. For more information on the City's response to COVID-19, including the phased distribution of the COVID-19 vaccines, see https://www.phila.gov/programs/coronavirus-disease-2019-covid-19/. Such website is included herein for reference only and the information contained therein is not incorporated by reference in this Official Statement.

The City implemented its COVID-19 vaccine mandate for all City employees on June 30, 2022. Pursuant to an order originally issued by the Mayor in November 2021, the vaccine mandate effective date was delayed until June 30, 2022. By June 30, 2022, union and non-union City employees must have proof of at least one shot of the COVID-19 vaccine or an approved medical exemption. If such proof or exemption is not provided, such employees will be placed on leave (using their own paid time off or go unpaid) for 30 days, and then terminated if they have still not complied with the vaccine mandate.

In response to increased expenses related to COVID-19, various federal, state, and local recovery grants have become available to the City, including recovery grants under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") and the American Rescue Plan Act of 2021 (the "American Rescue Plan"). The CARES Act and the American Rescue Plan include substantial federal relief funds for state and local governments, including the City, to address the impact of COVID-19 on the economy, public health, state and local governments, individuals, and businesses. The funds include the $276 million Coronavirus Relief Fund (via the CARES Act) and the $1.395 billion Coronavirus Local Fiscal Recovery Fund (via the American Rescue Plan), which represent the two largest allocations made to the City. Two tranches of American Rescue Plan funds were received in June 2021 and June 2022. The final amount of such funds is expected to be received in the first quarter of Fiscal Year 2023. The American Rescue Plan funds must be obligated by the end of calendar year 2024.

To oversee the management of COVID-19 recovery grants, the City formed a Recovery Office and Steering Committee, comprised of representatives from various City offices and departments, including the Mayor's Office, the Office of the Managing Director, Finance, Commerce, and Planning and Development, among others. In determining how such funds are allocated, the Recovery Office and Steering Committee has identified three key themes to drive investments: (i) protecting public health and safety, (ii) protecting vulnerable residents, and (iii) economic recovery. Federal, state, and local funding has been secured for businesses and individuals impacted by the pandemic and recovery funds have also been used for a number of initiatives aimed at supporting vulnerable populations.

Fiscal Impact. The City continues to closely monitor and assess the effects of the COVID-19 pandemic and its economic, operating, financial, and budgetary impact on the City. Such impact is significant and continues to evolve as pandemic challenges remain. The Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted

Budget, and the Thirty-First Five-Year Plan, as applicable, reflect the sudden, dramatic increases in service demands, unanticipated costs, and economic conditions as a result of the COVID-19 global pandemic and the City's associated response.

While the City continues to be significantly impacted by COVID-19, preliminary estimates show that revenues increased in Fiscal Year 2022 as compared to Fiscal Year 2021, growing by 17.0%. Part of such increase in revenues is attributable to the City drawing down on approximately $250 million in federal relief funding from the American Rescue Plan, which is expected to replace lost revenue to support core government services and pandemic response efforts. The Thirty-First Five-Year Plan projects that Fiscal Year 2022 will end with a cumulative adjusted year end General Fund balance of $492.4 million.

Over the course of Fiscal Years 2022-2027, the City has identified projected budgetary gaps that are expected to be addressed, in part, by available federal relief funding from the American Rescue Plan (which, as described above, totals $1.395 billion). The City plans to monitor its proposed draw down schedule of such federal relief funding, and modify it, as necessary, in order to have an additional cushion if revenues are lower than anticipated. The federal relief funding from the American Rescue Plan alone is not expected to be sufficient to close the projected budgetary gap. Notwithstanding the foregoing, the City projects in the Thirty-First Five-Year Plan that it will end Fiscal Years 2022-2027 with positive General Fund balances.

For more information on the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, the Thirty-First Five-Year Plan, the City's historical financial operations, and the City's projected General Fund balances for Fiscal Years 2022-2027, see "DISCUSSION OF FINANCIAL OPERATIONS" and Tables 1 and 2 (and the text following Table 2) herein.

Revenues. For Fiscal Year 2022, the City is estimating revenues of $5.491 billion in Fiscal Year 2022 (based on the Thirty-First Five-Year Plan), a $798.2 million (17.01%) increase compared to Fiscal Year 2021.

For Fiscal Year 2022, the City is currently estimating increases in tax collections, including increases in Wage and Earnings Taxes, Real Property Transfer Taxes, Sales and Use Taxes, and Business Income and Receipts Taxes ("BIRT"), resulting in projected tax collections of $3.923 billion in Fiscal Year 2022 (based on the Thirty-First Five-Year Plan), a $498.8 million (14.6%) increase compared to Fiscal Year 2021.

As a result of the pandemic and remote work arrangements, the City continues to closely monitor Wage and Earnings Taxes. In the City, commuters account for about 40% for all Wage and Earnings Taxes. Such tax is not due when those commuters are required to work from home outside the City and may also lead to an increase in tax credit eligibility for such remote workers. If there are more long-term or permanent shifts to work from home, changes in consumer preferences, and population shifts, then there may be a lasting negative impact on City finances. In the Thirty-First Five-Year Plan, the City assumes a reduced non-resident tax base, as a result of remote work arrangements. This could create a permanent reduction in Wage and Earnings Tax collections. Current projections assume 25% of the non-resident portion of the Wage and Earnings Taxes will not be collected over the course of the Thirty-First Five-Year Plan. In Fiscal Year 2021, the non-resident portion of the Wage and Earnings Taxes was approximately 14.7% of General Fund total revenue.

For more information on tax revenues, see "– Fiscal Health of the City – Tax Revenues" and "REVENUES OF THE CITY" and Table 3 herein.

Expenses. The City is projecting higher costs for essential services and increased fixed costs, including overtime and other added labor costs and higher pension payments. With tax filing and payment deadlines delayed in calendar year 2020, the City also expected lower near-term collections and issued tax and revenue anticipation notes in Fiscal Year 2021 to maintain cash flow. The City did not issue tax and revenue anticipation notes in Fiscal Year 2022. The City does not expect to issue tax and revenue anticipation notes in Fiscal Year 2023 or Fiscal Year 2024.

In Fiscal Years 2020-2022, the City incurred significant new expenses for healthcare to reduce the spread of COVID-19 and treat those affected, including labor costs and expenses for testing sites and supplies, quarantine locations and services, surge hospital capacity, medical vehicles, personal protective equipment, disinfectant/cleaning supplies, morgue capacity, business supports, and vaccination rollout and administration. In addition to ongoing pandemic-related expenses, the City incurred additional expenses relating to certain unplanned events in Fiscal Year 2021 that stressed operations and the local economy.

The City received in Fiscal Years 2020 and 2021 certain CARES Act funding in the amounts of \$100 million in the General Fund and \$176 million in the Grants Revenue Fund, respectively. Such amounts were available to be transferred periodically from the Grants Revenue Fund to the General Fund to reimburse for COVID-19-related costs. The Thirtieth Five-Year Plan included transfers of \$26 million in Fiscal Year 2021 from available federal COVID-19 relief funding from the American Rescue Plan. In Fiscal Year 2022, the City drew down on approximately \$250 million in federal COVID-19 relief funding from the American Rescue Plan. In Fiscal Year 2023, the City expects to draw down on approximately \$335 million in federal COVID-19 relief funding from the American Rescue Plan.

As described above, federal COVID-19 relief funding available to the City from the American Rescue Plan has been included in the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable. The City does not include potential federal stimulus funding entitlements, reimbursements from the Federal Emergency Management Agency ("FEMA"), or funds from other federal or Commonwealth sources that may be received in its budgetary projections or five-year financial planning.

Budget Measures. The projected revenue losses and increases in expenses described above are expected to be addressed with reductions to planned spending, reduced reserve levels, and federal COVID-19 relief funding from the American Rescue Plan.

In prior Fiscal Years, the City implemented measures to reduce spending, including (i) a hiring freeze, (ii) layoffs for temporary, seasonal, and part-time workforce, (iii) temporary pay cuts, (iv) containing labor costs with the City's unions, (v) reducing certain overtime expenses, and (vi) eliminating vacant positions, among others. While many of these measures were discontinued for Fiscal Year 2022, the City continues to emphasize long-term overtime management and labor cost containment. The other key budget priorities for Fiscal Year 2022 included achieving fiscal stability and continuing to work toward a safer and more equitable Philadelphia.

The key budget priorities for Fiscal Year 2023 include investments in safety and well-being of City residents, tax rate reductions and tax relief, and focusing on the City's long-term fiscal health.

The Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable, include budgeted reserves for specific costs or scenarios in the future. Over the course of Fiscal Years 2023-2027, the City is increasing projected overall reserve allocations to make a portion of those funds available for the delivery of services, while maintaining a minimum level of reserve balances to guard against greater than expected revenue losses or new spending pressures.

For information on the City's historical financial operations and the City's projected General Fund balances for Fiscal Years 2022-2027, see "– General Fund Balance" and "DISCUSSION OF FINANCIAL OPERATIONS" and Tables 1 and 2 (and the text following Table 2) herein. For information on budgeted reserves, see "– Budgeted Reserves" and "DISCUSSION OF FINANCIAL OPERATIONS," Table 1, Table 2, and related footnotes herein.

Long-Term Effects of COVID-19. The City continues to closely monitor and assess the effects of the COVID-19 pandemic and its impact on the City's financial position and operations. The overall impact on City revenues, expenditures, reserves, budgets, and financial position has been significant and it is still evolving. Various economic sectors throughout the City have been affected by the COVID-19 pandemic, including higher education, healthcare, travel, leisure and hospitality, and professional services, among others. The long-term impact of COVID-19 on the City will depend heavily on future events and actions by the federal and Commonwealth governments. No assurance can be given regarding future events or impacts because many actions and events are unpredictable, unknowable at this time, and outside the control of the City.

The information provided by the City in this Official Statement and previous filings by the City on EMMA was provided as of the respective dates and for the periods specified therein and is subject to change without notice. In particular, the dates as of and periods for which information was provided in this Official Statement and previous filings by the City on EMMA may have occurred before the COVID-19 pandemic and before realizing the economic impact of measures instituted to slow the spread of COVID-19. Accordingly, such information may not be indicative of future results or performance due to these and other factors.

General Fund Balance: In the Fiscal Year 2022 Adopted Budget, the City projected that Fiscal Year 2021 would end with a cumulative adjusted year end General Fund balance of $78.7 million. Based on the actual results included in the City's audited Annual Comprehensive Financial Report for Fiscal Year 2021 (the "Fiscal Year 2021 ACFR"), the City reported that Fiscal Year 2021 ended with a cumulative adjusted year end General Fund balance of $298.5 million. Such number has been included as part of the current estimate for Fiscal Year 2022 in the Thirty-First Five-Year Plan.

The City's current estimate is that Fiscal Year 2022 will end with a cumulative adjusted year end General Fund balance of $492.4 million, which at 8.97% of projected revenues exceeds the Mayor's target for the General Fund balance of 6-8% of revenues, but remains below the Government Finance Officers Association ("GFOA") recommendation of 17% of revenues.

In the Fiscal Year 2023 Adopted Budget, the City projects that Fiscal Year 2023 will end with a cumulative adjusted year end General Fund balance of $372.2 million, which at 6.53% of projected revenues meets the Mayor's target for the General Fund balance of 6-8% of revenues, but remains below the Government Finance Officers Association ("GFOA") recommendation of 17% of revenues.

For more information on the City's historical financial operations and the City's projected General Fund balances for Fiscal Years 2022-2027, see "DISCUSSION OF FINANCIAL OPERATIONS" and Tables 1 and 2 (and the text following Table 2) herein.

Budget Stabilization Reserve: To provide the City with a financial cushion should unexpected costs arise, the City made a deposit of $34.3 million to the Budget Stabilization Reserve (as defined herein), pursuant to the adopted budget for Fiscal Year 2020. Pursuant to the Fiscal Year 2021 Adopted

Budget, the City drew down on such funds and redirected them to spending. At present, there are no funds in the Budget Stabilization Reserve.

There was no payment to the Budget Stabilization Reserve in Fiscal Year 2021. The Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan do not include any payments to the Budget Stabilization Reserve in Fiscal Year 2022. In the Thirty-First Five-Year Plan, the City projects payments to the Budget Stabilization Reserve in Fiscal Years 2023, 2024, 2025, and 2026, in the amounts of $40.1 million, $41.6 million, $43.2 million, and $41.1 million, respectively. For more information on the Budget Stabilization Reserve, see "DISCUSSION OF FINANCIAL OPERATIONS – Budget Stabilization Reserve" herein.

Budgeted Reserves: The Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable, include budgeted reserves, certain of which are described below.

Labor Reserve. In Fiscal Year 2022, the City received arbitration awards or reached collective bargaining agreements with its largest unions covering the period of July 1, 2022 through June 30, 2024. Negotiations for a new collective bargaining agreement with one other bargaining unit remain ongoing. For more information on the City's labor contracts, see "EXPENDITURES OF THE CITY – Overview of City Employees" herein.

The Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable, include a labor reserve for potential future labor cost increases (the "Labor Reserve").

Recession, Inflation, and Reopening Reserve. To mitigate against the fiscal impact of a national and local economic recession and inflation and the costs of reopening efforts related to COVID-19, the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable, include a recession, inflation, and reopening reserve to address related expenses (the "Recession, Inflation, and Reopening Reserve").

In the Thirty-First Five-Year Plan, the City projects that the Labor Reserve and the Recession, Inflation, and Reopening Reserve will total approximately (i) $9.9 million in Fiscal Year 2022, (ii) $86.0 million in Fiscal Year 2023, (iii) $95.0 million in Fiscal Year 2024, (iv) $128.0 million in Fiscal Year 2025, (v) $170.0 million in Fiscal Year 2026, and (vi) $203.0 million in Fiscal Year 2027.

For the foregoing reserves, any portion of such reserves that is not used to offset the applicable stated costs will increase the General Fund balance at the end of the given Fiscal Year, if not used by the City for other purposes. Information related to the foregoing reserves can be found in Tables 1 and 2 and the related footnotes in "DISCUSSION OF FINANCIAL OPERATIONS."

Tax Revenues: Consistently, more than 70% of the City's revenues come from local taxes and approximately 88.3% of tax revenues come from just four taxes: Wage and Earnings Taxes, Real Estate Taxes, BIRT, and Real Property Transfer Taxes, with the largest portion of such tax revenues (approximately 39.2%) coming from the Wage and Earnings Tax (see Table 3 and "REVENUES OF THE CITY – Wage, Earnings, and Net Profits Taxes" herein). Approximately 46% of the Wage and Earnings Tax is paid by non-resident workers. Additionally, the City remains unique among the nation's largest cities in that it imposes a tax on both corporate profits and revenue through the BIRT, which is estimated to have generated approximately 16.1% of the City's local tax revenue in Fiscal Year 2022 (based on the Thirty-First Five-Year Plan) and budgeted to generate approximately 15.7% of the City's local tax revenue in Fiscal Year 2023 (based on the Fiscal Year 2023 Adopted Budget). See "REVENUES OF THE CITY" and Table 3 herein.

High Fixed Costs: The City's high fixed costs consume a significant portion of the City's budget. The largest of such costs is the City's payment to the Municipal Pension Fund. In the Fiscal Year 2021 ACFR, pension costs consumed approximately 14.1% of General Fund expenditures in Fiscal Year 2021, with a City pension cost of approximately $664.4 million (from the General Fund). Based on the current estimate in the Thirty-First Five-Year Plan, pension costs are expected to consume approximately 15.1% of General Fund expenditures in Fiscal Year 2022, with a City pension cost of approximately $802.8 million (from the General Fund). Based on the budgeted amount in the Fiscal Year 2023 Adopted Budget, pension costs are expected to consume approximately 14.4% of General Fund expenditures in Fiscal Year 2023, with a City pension cost of approximately $842.5 million (from the General Fund). Even with such payments, the Municipal Pension Fund is only 54.9% funded on an actuarial basis (as of the July 1, 2021 Valuation (as defined herein)). See "PENSION SYSTEM" and Table 27 herein.

In Fiscal Year 2021, the City refunded a portion of its outstanding pension obligation bonds. Such refunding restructured debt service to provide the City with General Fund budgetary relief in Fiscal Year 2021 ($74.9 million) and Fiscal Year 2022 ($19 million). Such amounts would otherwise be included in pension expenditures for such Fiscal Years. See "PENSION SYSTEM – Annual Contributions – *Annual Debt Service Payments on the Pension Bonds*."

Significant Funding for the School District: In the Fiscal Year 2021 ACFR, the City reported that its direct contribution to the School District of Philadelphia (the "School District") from the General Fund was $252.6 million in Fiscal Year 2021. In the Fiscal Year 2022 Adopted Budget, the City's direct contribution to the School District from the General Fund is $256.0 million in Fiscal Year 2022, which amount is unchanged as the current estimate in the Thirty-First Five-Year Plan. In the Fiscal Year 2023 Adopted Budget, the City's direct contribution to the School District from the General Fund is $270.0 million in Fiscal Year 2023. The School District is an independent governmental entity.

For more information on the School District, see "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – Mayoral-Appointed or Nominated Agencies – The School District." For more information on the City's historical contributions to the School District, see "EXPENDITURES OF THE CITY – City Payments to School District" and Table 21 herein.

This "OVERVIEW" is intended to highlight the strategies implemented by the City to address its principal anticipated fiscal challenges and the City continues to monitor the circumstances related thereto. The reader is cautioned to review with care the more detailed information presented in this APPENDIX III.

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THE GOVERNMENT OF THE CITY OF PHILADELPHIA

Introduction

As noted above, the City is the largest city in the Commonwealth, the sixth largest city in the United States, and the center of the United States' seventh largest metropolitan statistical area. The City benefits from its strategic geographical location, relative affordability, cultural and recreational amenities, and its growing strength in key industries.

As one of the country's education centers, the City offers the business community a large and diverse labor pool. Penn, Temple University, Drexel University, St. Joseph's University, La Salle University, and Community College of Philadelphia are certain of the well-known institutions of higher education located in the City. There are also a number of other well-known colleges and universities located near the City, notably including Villanova University, Bryn Mawr College, Haverford College, Swarthmore College, Lincoln University, and the Camden Campus of Rutgers University, among others.

The City is a center for health, education, research and science facilities. In the City, there are more than 30 hospitals, including the Children's Hospital of Philadelphia, Hospital of the University of Pennsylvania, Einstein Medical Center-Philadelphia, Temple University Hospital, and Thomas Jefferson University Hospitals and Jefferson Health, among others, and schools of medicine, dentistry, pharmacy, optometry, podiatry, and veterinary medicine.

Tourism is important to the City and is driven by the City's extraordinary historic and cultural assets. The City's Historic District includes Independence Hall, the Liberty Bell, Carpenters' Hall, the Betsy Ross House, and Elfreth's Alley, the Nation's oldest residential street. The Benjamin Franklin Parkway District (referred to as the "Parkway" in APPENDIX IV) includes the Philadelphia Museum of Art, the Barnes Foundation, and the Rodin Museum. The Avenue of the Arts, located along a mile-long section of South Broad Street between City Hall and Washington Avenue, includes the Kimmel Center, the Academy of Music, and other performing arts venues. All of the foregoing are key tourist attractions in the City.

For more information on the City's demographic and economic resources and economic development initiatives, see APPENDIX IV hereto.

History and Organization

The City was incorporated in 1789 by an Act of the General Assembly of the Commonwealth (the "General Assembly") (predecessors of the City under charters granted by William Penn in his capacity as proprietor of the colony of Pennsylvania may date to as early as 1682). In 1854, the General Assembly, by an act commonly referred to as the Consolidation Act: (i) made the City's boundaries coterminous with the boundaries of Philadelphia County (the same boundaries that exist today) (the "County"); (ii) abolished all governments within these boundaries other than the City and the County; and (iii) consolidated the legislative functions of the City and the County. Article 9, Section 13 of the Pennsylvania Constitution abolished all county offices in the City, provides that the City performs all functions of county government, and states that laws applicable to counties apply to the City.

Since 1952, the City has been governed under a Home Rule Charter authorized by the General Assembly pursuant to the First Class City Home Rule Act, Act of April 21, 1949, P.L. 665, Section 17, and adopted by the voters of the City (as amended and supplemented, the "City Charter"). The City Charter provides, among other things, for the election, organization, powers and duties of the legislative branch (the "City Council") and the executive and administrative branch, as well as the basic rules governing the City's fiscal and budgetary matters, contracts, procurement, property, and records. Under

Article XII of the City Charter, the School District operates as a separate and independent home rule school district. Certain other constitutional provisions and Commonwealth statutes continue to govern various aspects of the City's affairs, notwithstanding the broad grant of powers of local self-government in relation to municipal functions set forth in the First Class City Home Rule Act.

Under the City Charter, there are two distinct principal governmental entities in the City: (i) the City, which performs municipal and county functions; and (ii) the School District, which has boundaries coterminous with the City and responsibility for all public primary and secondary education.

The court system in the City, consisting of Common Pleas and Municipal Courts, is part of the Commonwealth judicial system. Although judges are paid by the Commonwealth, most other court costs are paid by the City, with partial reimbursement from the Commonwealth.

Elected and Appointed Officials

The Mayor is elected for a term of four years and is eligible to be elected for no more than two successive terms. Each of the seventeen members of City Council is also elected for a four-year term, which runs concurrently with that of the Mayor. There is no limitation on the number of terms that may be served by members of City Council. Of the members of City Council, ten are elected from districts and seven are elected at-large. No more than five of the seven at-large candidates for City Council may be nominated by any one party or political body. The District Attorney and the City Controller are elected at the mid-point of the terms of the Mayor and City Council.

The City Controller's responsibilities derive from the City Charter, various City ordinances and state and federal statutes, and contractual arrangements with auditees. The City Controller must follow Generally Accepted Government Auditing Standards, established by the federal Government Accountability Office (formerly known as the General Accounting Office), and Generally Accepted Auditing Standards, promulgated by the American Institute of Certified Public Accountants (collectively, "Generally Accepted Auditing Standards").

The City Controller audits and reports on the City's and the School District's respective Annual Comprehensive Financial Reports ("ACFRs"), federal assistance received by the City, and the performance of City departments. The City Controller also conducts a pre-audit program of City expenditure documents required to be submitted for approval, such as invoices, payment vouchers, purchase orders and contracts. Documents are selected for audit by category and statistical basis. The Pre-Audit Division verifies that expenditures are authorized and accurate in accordance with the City Charter and other pertinent legal and contractual requirements before any moneys are paid by the City Treasurer. The Pre-Audit Technical Unit, consisting of auditing and engineering staff, inspects and audits capital project design, construction and related expenditures. Other responsibilities of the City Controller include investigation of allegations of fraud, preparation of economic reports, certification of the City's debt capacity and the capital nature and useful life of the capital projects, and opining to the Pennsylvania Intergovernmental Cooperation Authority ("PICA") on the reasonableness of the assumptions and estimates in the City's five-year financial plans.

Under the City Charter, the principal officers of the City's government are the Managing Director of the City (the "Managing Director"), the Director of Finance of the City (the "Director of Finance"), the City Solicitor (the "City Solicitor"), the Director of Commerce (the "Director of Commerce"), the City Representative (the "City Representative"), and the Director of Planning and Development (the "Director of Planning and Development"). Under the City Charter, the Mayor appoints the Managing Director, the Director of Finance, the Director of Commerce, the City Representative, and the Director of Planning and

Development. The Mayor, with the advice and consent of a majority of City Council, also appoints the City Solicitor.

The Managing Director, in coordination with the senior officials of City departments and agencies, is responsible for supervising the operating departments and agencies of the City that render the City's various municipal services. The Director of Commerce is charged with the responsibility of promoting and developing commerce and industry. The City Representative is the Ceremonial Representative of the City and especially of the Mayor. The City Representative is charged with the responsibility of giving wide publicity to any items of interest reflecting the activities of the City and its inhabitants, and for the marketing and promotion of the image of the City. Under the City Charter, the Director of Planning and Development oversees the Department of Planning and Development, which includes three divisions: (i) the Division of Development Services; (ii) the Division of Planning and Zoning; and (iii) the Division of Housing and Community Development. Such divisions represent five budgetary programs/fiscal divisions, including Executive Administration, Planning & Zoning, Development Services, Community Development, and Housing Development.

The City Solicitor is head of the Law Department and acts as legal advisor to the Mayor, City Council, and all of the agencies of the City government. The City Solicitor is also responsible for: (i) advising on legal matters pertaining to all of the City's contracts and bonds; (ii) assisting City Council, the Mayor, and City agencies in the preparation of ordinances for introduction in City Council; and (iii) conducting litigation involving the City.

The Director of Finance is the chief financial and budget officer of the City and is selected from three names submitted to the Mayor by a Finance Panel, which is established pursuant to the City Charter and is comprised of the President of the Philadelphia Clearing House Association, the Chairman of the Philadelphia Chapter of the Pennsylvania Institute of Certified Public Accountants, and the Dean of the Wharton School of Finance and Commerce of the University of Pennsylvania. Under Mayor Kenney's administration, the Director of Finance is responsible for the financial functions of the City, including: (i) development of the annual operating budget, the capital budget, and capital program; (ii) the City's program for temporary and long-term borrowing; (iii) supervision of the operating budget's execution; (iv) the collection of revenues through the Department of Revenue; (v) the oversight of pension administration as Chairperson of the Board of Pensions and Retirement; and (vi) the supervision of the Office of Property Assessment. The Director of Finance is also responsible for the appointment and supervision of the City Treasurer, whose office manages the City's debt program and serves as the disbursing agent for the distribution of checks and electronic payments from the City Treasury and the management of cash resources.

The following are brief biographies of Mayor Kenney, his Chief of Staff, the Director of Finance, and the City Treasurer.

James F. Kenney, Mayor. On November 3, 2015, James F. Kenney was elected as the City's 99th Mayor and was sworn into office on January 4, 2016. Mayor Kenney was reelected to a second term on November 5, 2019 and was sworn into office on January 6, 2020. Mayor Kenney is a lifelong resident of the City and a graduate of La Salle University. In 1991, Mayor Kenney was elected to serve as a Democratic City Councilman At-Large and was a member of City Council for 23 years.

James Engler, Chief of Staff. Mr. Engler was appointed Chief of Staff effective August 10, 2018. Prior to that, Mr. Engler served as Deputy Mayor for Policy and Legislation since January 2016. In that role, Mr. Engler served as a senior liaison between the Mayor's Office and City Council and was responsible for developing administration policy priorities and working with stakeholders inside and outside of government to advance those goals.

Rob Dubow, Director of Finance. Mr. Dubow has served as Director of Finance since being appointed on January 7, 2008. Prior to that appointment, Mr. Dubow was the Executive Director of PICA. He has also served as Executive Deputy Budget Secretary of the Commonwealth, from 2004 to 2005, and as Budget Director for the City, from 2000 to 2004.

Jacqueline Dunn, City Treasurer. On February 11, 2021, Ms. Dunn was appointed City Treasurer. Prior to such appointment, Ms. Dunn served as Acting City Treasurer since September 25, 2020, and prior to that, she served as Deputy City Treasurer since July 2019. As City Treasurer, Ms. Dunn (i) oversees the issuance of all notes and bonds on behalf of the City's General Fund and Enterprise Funds used to finance capital projects, (ii) manages cash collections and cash resources in the City Treasury, and (iii) serves as the disbursing agent for the distribution of checks and electronic payments from the City Treasury. Ms. Dunn also serves as the Director of Finance's designee on the Philadelphia Board of Pensions and Retirement and as a board member for the Philadelphia Municipal Authority ("PMA"). In 2014, Ms. Dunn joined the City as an Assistant Finance Director in the Finance Department. In 2016, she was appointed Chief of Staff to the Director of Finance. Prior to joining the City, Ms. Dunn worked for Public Financial Management and the Annenberg Public Policy Center. She has a master's degree in Governmental Administration and a bachelor's degree in Political Science, both from the University of Pennsylvania.

Government Services

Municipal services provided by the City include: (i) police and fire protection; (ii) health care; (iii) certain welfare programs; (iv) construction and maintenance of local streets, highways, and bridges; (v) trash collection, disposal and recycling; (vi) provision for recreational programs and facilities; (vii) maintenance and operation of the water and wastewater systems (the "Water and Wastewater Systems"); (viii) acquisition and maintenance of City real and personal property, including vehicles; (ix) maintenance of building codes and regulation of licenses and permits; (x) maintenance of records; (xi) collection of taxes and revenues; (xii) purchase of supplies and equipment; (xiii) construction and maintenance of airport facilities (the "Airport System"); and (xiv) maintenance of a prison system. For information on the Water and Wastewater Systems, see APPENDIX IV – "KEY CITY-RELATED SERVICES AND BUSINESSES – Water and Wastewater." For information on the Airport System, see APPENDIX IV – "TRANSPORTATION – Airport System."

The City owns the assets that comprise the Philadelphia Gas Works ("PGW" or the "Gas Works"). PGW serves residential, commercial, and industrial customers in the City. PGW is operated by Philadelphia Facilities Management Corporation ("PFMC"), a non-profit corporation specifically organized to manage and operate PGW for the benefit of the City. For more information on PGW, see "PGW PENSION PLAN," "PGW OTHER POST-EMPLOYMENT BENEFITS," "EXPENDITURES OF THE CITY – PGW Annual Payments," and "LITIGATION – PGW" and APPENDIX IV – "KEY CITY-RELATED SERVICES AND BUSINESSES – Gas Works."

Local Government Agencies

There are a number of governmental authorities and quasi-governmental non-profit corporations that also provide services within the City. Certain of these entities are comprised of governing boards, the members of which are either appointed or nominated, in whole or part, by the Mayor, while others are independent of the Mayor's appointment or recommendation.

Mayoral-Appointed or Nominated Agencies

Philadelphia Industrial Development Corporation and Philadelphia Authority for Industrial Development. The Philadelphia Industrial Development Corporation ("PIDC") and the Philadelphia Authority for Industrial Development ("PAID"), along with the City's Commerce Department, coordinate the City's efforts to maintain an attractive business environment, attract new businesses to the City, and retain existing businesses. PIDC manages PAID's activities through a management agreement. Of the 30 members of the board of PIDC, eight are City officers or officials (the Mayor, the Managing Director, the Finance Director, the Commerce Director, the Director of Planning and Development, the City Solicitor, and two members of City Council), nine members are designated by the President of the Chamber of Commerce of Greater Philadelphia (the "Chamber of Commerce"), and the remaining 13 members are jointly designated by the Chamber of Commerce and the Commerce Director. The five-member board of PAID is appointed by the Mayor.

Philadelphia Municipal Authority. PMA (formerly the Equipment Leasing Authority of Philadelphia) was originally established for the purpose of buying equipment and vehicles to be leased to the City. PMA's powers have been expanded to include any project authorized under applicable law that is specifically authorized by ordinance of City Council. PMA is governed by a five-member board appointed by City Council from nominations made by the Mayor.

Philadelphia Energy Authority. The Philadelphia Energy Authority ("PEA") was established by the City and incorporated in 2011 for the purpose of facilitating and developing energy generation projects, facilitating and developing energy efficiency projects, the purchase or facilitation of energy supply and consumer energy education. PEA is authorized to participate in projects on behalf of the City, other government agencies, institutions and businesses. PEA is governed by a five-member board appointed by City Council from four nominations made by the Mayor and one nomination from City Council.

Philadelphia Redevelopment Authority. The Philadelphia Redevelopment Authority (formerly known as the Redevelopment Authority of the City of Philadelphia) (the "PRA"), supported by federal funds through the City's Community Development Block Grant Fund and by Commonwealth and local funds, is responsible for the redevelopment of the City's blighted areas. PRA is governed by a five-member board appointed by the Mayor.

Philadelphia Land Bank. The Philadelphia Land Bank (the "PLB") is an independent agency formed under the authority of City ordinance and Pennsylvania law to return vacant and tax delinquent properties to productive reuse. The PLB has an 11-member board of directors, of which five are appointed by the Mayor and five are appointed by City Council. The final board member is appointed by a majority vote of the other board members. For more information on the PLB, see APPENDIX IV – "ECONOMIC DEVELOPMENT STRATEGIES AND IMPLEMENTATION – City and Quasi-City Economic Development Agencies and Related Programs – Philadelphia Land Bank."

Philadelphia Housing Authority. The Philadelphia Housing Authority (the "PHA") is a public body organized pursuant to the Housing Authorities Law of the Commonwealth and is neither a department nor an agency of the City. PHA is responsible for developing and managing low and moderate income rental units and limited amounts of for-sale housing in the City. PHA is also responsible for administering rental subsidies to landlords who rent their units to housing tenants qualified by PHA for such housing assistance payments. PHA is governed by a nine-member Board of Commissioners, all of whom are appointed by the Mayor with the approval of a majority of the members of City Council. The terms of the Commissioners are concurrent with the term of the appointing Mayor. Two of the members of the Board are required to be PHA residents. For more information on PHA, see

APPENDIX IV – "ECONOMIC DEVELOPMENT STRATEGIES AND IMPLEMENTATION – City and Quasi-City Economic Development Agencies and Related Programs – The Philadelphia Housing Authority."

Hospitals and Higher Education Facilities Authority of Philadelphia. The Hospitals and Higher Education Facilities Authority of Philadelphia (the "Hospitals Authority") assists non-profit hospitals by financing hospital construction projects. The City does not own or operate any hospitals. The powers of the Hospitals Authority also permit the financing of construction of buildings and facilities for certain colleges and universities and other health care facilities and nursing homes. The Hospitals Authority is governed by a five-member board appointed by City Council from nominations made by the Mayor.

Southeastern Pennsylvania Transportation Authority. The Southeastern Pennsylvania Transportation Authority ("SEPTA"), which is supported by transit revenues and federal, Commonwealth, and local funds, is responsible for developing and operating a comprehensive and coordinated public transportation system in the southeastern Pennsylvania region. Two of the 15 members of SEPTA's board are appointed by the Mayor and confirmed by City Council. SEPTA is not a department or agency of the City. For more information on SEPTA, see "EXPENDITURES OF THE CITY – City Payments to SEPTA" and APPENDIX IV – "TRANSPORTATION – Southeastern Pennsylvania Transportation Authority (SEPTA)."

Pennsylvania Convention Center Authority. The Pennsylvania Convention Center Authority (the "Convention Center Authority") constructed and maintains, manages, and operates the Pennsylvania Convention Center, which opened on June 25, 1993. The Pennsylvania Convention Center is owned by the Commonwealth and leased to the Convention Center Authority. An expansion of the Pennsylvania Convention Center was completed in March 2011. This expansion enlarged the Pennsylvania Convention Center to approximately 2,300,000 square feet with the largest contiguous exhibit space in the Northeast, the largest convention center ballroom on the East Coast, and the ability to host large tradeshows or two major conventions simultaneously.

Of the 15 members of the board of the Convention Center Authority, two are appointed by the Mayor and one by each of the President and Minority Leader of City Council. The Director of Finance is an ex-officio member of the Board with no voting rights. The Commonwealth, the City and the Convention Center Authority have entered into an operating agreement with respect to the operation and financing of the Pennsylvania Convention Center. In January 2014, SMG began managing and operating the Pennsylvania Convention Center, instituting a number of measures intended to reduce and control show costs and improve customer service. For more information on the Convention Center Authority, see "EXPENDITURES OF THE CITY – City Payments to Convention Center Authority."

The School District. The School District was established, pursuant to the First Class City Home Rule Education Act, by the Educational Supplement to the City Charter as a separate and independent home rule school district to provide free public education to the City's residents. Under the City Charter, the School District is governed by the Board of Education of the School District of Philadelphia (the "Board of Education"), which is appointed by the Mayor.

Under the City Charter, the Board of Education is required to levy taxes annually, within the limits and upon the subjects authorized by the General Assembly or City Council, in amounts sufficient to provide for operating expenses, debt service charges, and for the costs of any other services incidental to the operation of public schools. The School District has no independent power to authorize school taxes. Certain financial information regarding the School District is included in the City's ACFR.

The School District is part of the Commonwealth system of public education. In a number of matters, including the incurrence of short-term and long-term debt, the School District is governed by the separate statutes of the Commonwealth. The School District is a separate political subdivision of the Commonwealth, and the City has no property interest in or claim on any revenues or property of the School District.

In the Fiscal Year 2021 ACFR, the City reported that its direct contribution to the School District of Philadelphia (the "School District") from the General Fund was $252.6 million in Fiscal Year 2021. In the Fiscal Year 2022 Adopted Budget, the City's direct contribution to the School District from the General Fund is $256.0 million in Fiscal Year 2022, which amount is unchanged as the current estimate in the Thirty-First Five-Year Plan. In the Fiscal Year 2023 Adopted Budget, the City's direct contribution to the School District from the General Fund is $270.0 million in Fiscal Year 2023. Such amounts do not include funding from taxes levied by the School District and authorized by City Council. For more information on the City's historical contributions to the School District, see "EXPENDITURES OF THE CITY – City Payments to School District" and Table 21.

Non-Mayoral-Appointed or Nominated Agencies

PICA. PICA was created by the Pennsylvania Intergovernmental Cooperation Authority Act for Cities of the First Class (the "PICA Act") in 1991 to provide financial assistance to cities of the first class. The City is the only city of the first class in the Commonwealth. The Governor, the President pro tempore of the Pennsylvania Senate, the Minority Leader of the Pennsylvania Senate, the Speaker of the Pennsylvania House of Representatives, and the Minority Leader of the Pennsylvania House of Representatives each appoints one voting member of PICA's board. The Secretary of the Budget of the Commonwealth and the Director of Finance of the City serve as ex officio members of PICA's board with no voting rights.

In January 1992, the City and PICA entered into an Intergovernmental Cooperation Agreement (the "PICA Agreement"), pursuant to which PICA agreed to issue bonds from time to time, at the request of the City, for the purpose of funding, among other things, deficits in the General Fund and a debt service reserve. See "DEBT OF THE CITY – PICA Bonds."

Under the PICA Act, the City is required to submit to PICA: (i) a five-year financial plan on an annual basis; and (ii) quarterly financial reports, each as further described below under "DISCUSSION OF FINANCIAL OPERATIONS – Five-Year Plans of the City" and "– Quarterly Reporting to PICA."

On September 29, 2021, a bill was introduced in the House of Representatives of Pennsylvania ("House Bill 1935") that amends the PICA Act to, among other things, (i) extend the term of existence of PICA until the later of January 2, 2047 or one year after all its liabilities are met or, in the case of PICA Bonds, one year after provision for such payment shall have been made or provided for in the applicable bond indenture; (ii) continue all of the financial oversight and reporting requirements of the PICA Act for the life of PICA (regardless of whether PICA Bonds are outstanding); (iii) permit on a limited basis, at the request of the City, the issuance of PICA Bonds for capital projects of the City; and (iv) continue the authorization and dedication of the PICA Tax for so long as PICA remains in existence (regardless of whether any PICA Bonds are outstanding). After passing both houses of the General Assembly, House Bill 1935 was signed into law by the Governor on July 7, 2022. For more information on PICA Bonds, see "DEBT OF THE CITY – PICA Bonds." The City expects to amend the PICA Agreement and the PICA Tax ordinance to extend their durations and update certain other provisions therein in order to reflect the amendments to the PICA Act.

The PICA Act and the PICA Agreement provide PICA with certain financial and oversight functions. PICA has the power to exercise certain advisory and review procedures with respect to the City's financial affairs, including the power to review and approve the five-year financial plans prepared by the City, and to certify non-compliance by the City with the then-existing five-year plan. PICA is also required to certify non-compliance if, among other things, no approved five-year plan is in place or if the City has failed to file mandatory revisions to an approved five-year plan. Under the PICA Act, any such certification of non-compliance would, upon certification by PICA, require the Secretary of the Budget of the Commonwealth to withhold funds due to the City from the Commonwealth or any of its agencies (including, with certain exceptions, all grants, loans, entitlements, and payments payable to the City by the Commonwealth, including payment of the portion of the PICA Tax, as further described under "DEBT OF THE CITY – PICA Bonds" below, otherwise payable to the City). Such withheld funds are held in escrow by the Commonwealth or in the applicable City account until such non-compliance is cured. A majority vote of PICA will determine when the conditions that caused the City to be certified as non-compliant have ceased to exist. Following such vote, PICA notifies the Secretary of the Budget and the withheld funds are released (together with all interest and income earned thereon during the period held in escrow).

Philadelphia Parking Authority. The Philadelphia Parking Authority (the "PPA") is responsible for: (i) the construction and operation of parking facilities in the City and at Philadelphia International Airport ("PHL"); and (ii) enforcement of on-street parking regulations. The members of the PPA's board are appointed by the Governor, with certain nominations from the General Assembly. PPA is not a department or agency of the City. For more information on the PPA, see "REVENUES OF THE CITY – Philadelphia Parking Authority Revenues."

Cybersecurity

The City relies on a complex technology environment to conduct its operations. As a recipient and provider of personal, private, and sensitive information, the City and its departments and offices face multiple cyber threats including, but not limited to, hacking, viruses, malware, and other attacks on computers and other sensitive digital networks and systems. In recent years, various cyber incidents have occurred that resulted in proactive remediation and quarantining of computer hardware and networks. The impact of such incidents was reduced as a result of the City's cyber policies and procedures.

The City's Office of Innovation and Technology works to protect the City from cyber threats by adopting new technology and ensuring City systems and citizen data are protected. The Office of Innovation and Technology follows industry best practices, develops City-wide security policies, provides regular security training to all City employee users, and uses security tools to mitigate, prevent, deter, and respond to incidents if and when they occur. Additionally, to identify potential vulnerabilities and proactively mitigate them, the City organizes periodic (i) vulnerability scanning of critical systems, (ii) penetration tests of the information security environment, and (iii) regular internal testing of systems and users. These tests are performed by both the Office of Innovation and Technology and third parties.

The Office of Innovation and Technology has worked to establish relationships with federal and state government, and commercial, academic, and law enforcement security experts. It is the City's expectation that such relationships will enable the City to stay informed of threats and continuing improvements to security systems.

While the City closely monitors its networks and conducts periodic tests and reviews thereof, no assurances can be given that such security and operational control measures will be successful in guarding against all future cyber threats and attacks. New technical cyber vulnerabilities are discovered in the United States daily. In addition, cyber attacks have become more sophisticated and increasingly are capable of impacting municipal control systems and components. The techniques used to obtain unauthorized access to, or to disable or degrade, electronic networks, computers, systems and solutions are rapidly evolving and have become increasingly complex and sophisticated. In addition, there is heightened risk due to an increase in remote access to City systems by City employees as a result of the outbreak of COVID-19. As cybersecurity threats continue to evolve, the City may be required to expend significant additional resources to continue to modify and strengthen security measures, investigate and remediate any vulnerabilities, or invest in new technology designed to mitigate security risks. The results of any successful attack on the City's computer and information technology systems could impact its operations and damage the City's digital networks and systems, and the costs of remedying any such damage could be substantial.

Climate Change

The City's Office of Sustainability ("OOS") works with partners around the City, both public and private, to educate and prepare the City for climate change, among other things. OOS is responsible for implementing Greenworks Philadelphia, the City's comprehensive sustainability plan, which consists of a variety of initiatives to prepare the City for future climate–related challenges.

Planning for the potential impact of climate change in the City is challenging. The City's climate is variable and projections of future conditions range significantly. Potential climate change impacts include rising temperatures (heat waves); air quality issues; increased heavy precipitation events (rain or snow); rising sea levels (two feet by 2050 and four feet by 2100); and storm surges from more intense hurricanes and tropical storms.

Under the mid-century (2050) and end-of-century (2100) analyses, the City projects that it will experience a greater frequency of heavy and extremely heavy precipitation events, with the largest increase occurring in precipitation that falls during winter months. Heavy precipitation and flooding can be caused by a variety of weather systems, including tropical storms and hurricanes, thunderstorms, and frontal activity. When these heavy precipitation events fall as rain, they often exceed the capacity of the City's storm sewer infrastructure; when they fall as snow, they require many City resources to manage. Some of these projections are already becoming a reality, as the City has experienced an increase in the intensity and frequency of storm events over the last decade, which has on occasion resulted in significant flooding.

The sea level rising is a particularly important risk for the City, as rising seas affect water levels in the Delaware and Schuylkill Rivers bordering the City. Higher sea levels will increase the depth and extent of flooding in and around the City from storm surges. Low-lying areas already experience localized flooding during heavy storm events, and both municipal infrastructure and private development exist along the two rivers. Because of the City's topography and its location next to tidal rivers, many City facilities and other properties are vulnerable to sea level rise, even under conservative sea level rise scenarios. For example, Philadelphia International Airport (PHL) and at least a dozen other City facilities would be exposed to flooding with two feet of sea level rise, a scenario that is likely to occur by mid-century. Under the mid-century sea level rise scenario (indicating two feet of sea level rise), only one City facility is highly vulnerable to flooding, but under the end-of-century sea level rise scenario (four feet of sea level rise), 19 facilities are highly vulnerable and another 12 City facilities are moderately vulnerable. Hundreds of additional facilities (both City and private) are highly vulnerable to both riverine flooding and the combination of sea level rise and storm surge.

As an example of the City's possible susceptibility to flooding from major storms or rising sea levels, on September 1, 2021, remnants of Hurricane Ida passed through the City and surrounding areas causing heavy rainfall, major flooding, and numerous tornadoes. The Schuylkill River rose to record levels, or near record levels, in various areas and caused flooding throughout parts of the City. While the City continues to evaluate the scope and costs of the damages caused by the storm, preliminary evaluations indicate that the City suffered at least $27 million in damages to date. The City will seek federal relief funding and other aid from the Commonwealth to offset costs the City may incur in addressing the damages from the storm.

Financial Impact. While the financial effects of climate change are difficult to quantify, the City has developed some cost estimates related to its future fiscal impact. Climate change will increase both the risk of expensive extreme events and the regular, recurring costs of doing business, along with equally important but less quantifiable costs to quality of life in the City. Proactive planning for climate change can help to reduce many of these costs, both public and private.

Climate change is increasing the intensity of extreme storms, and just one severe hurricane could cause more than $2 billion in damages across the City. The City expects to see more frequent extreme storms with higher winds and more flooding, due in part to sea level rise combined with heavy rains. Depending on severity, each of these storms could cause an estimated $20 million to $900 million in damages in the City.

In addition to increasing disaster costs, higher heat and more precipitation will increase the everyday cost of doing business for the City's government, businesses, and residents. Increased operating costs from climate change across all sectors would result in a significant economic impact in the City. Much of these costs will be borne by City departments in combination with Commonwealth and federal government; others will fall directly on the private sector.

As the effects of climate change take shape in the City, annual costs related thereto are expected to include a variety of increases ranging from energy and maintenance costs to the increasing costs of continuing to provide services. For example, the City expects climate change to (i) increase annual electricity costs due to increased demand for air conditioning; (ii) create additional roadway maintenance costs from precipitation, freeze-thaw cycles, and high temperatures; and (iii) increase the annual cost of running heat emergency helplines to advise callers about how to avoid heat stress and refer those in need of help to emergency services.

The City also expects to face a variety of other increased costs due to climate change, such as (i) costs associated with a variety of respiratory diseases caused by higher levels of ozone (with costs for medical treatment and lost productivity associated with these diseases approaching $20 million by 2050), and (ii) increased regional transportation expenses (increased operational costs and damages from climate change could rise by almost $2 million per year).

In 2016, OOS, along with a cross-departmental Climate Adaptation Working Group, issued *Growing Stronger: Toward a Climate-Ready Philadelphia* to (i) assess vulnerabilities and preparation opportunities for municipal government; (ii) identify low-barrier and high-impact internal actions that can be taken to reduce risks and decrease stressors on City infrastructure services; and (iii) guide proactive projects with benefits beyond municipal operations. City-wide climate adaptation planning efforts are now also underway.

In addition to participating in planning efforts, City departments are taking action and implementing projects that aim to increase resilience on a broad array of climate issues. The Department of Public Property ensures that emergency generators in City-maintained facilities are well maintained and fueled, which is intended to allow other City departments to continue providing services during emergency situations. During heat emergencies, the Department of Public Health ensures communication among City agencies and deploys environmental health teams into the community. Philadelphia Parks and

Recreation works with citizen scientists to identify forest restoration practices suitable for the City's changing climate. Regarding broader development across the City, the Philadelphia City Planning Commission (the "Planning Commission") requires new facilities located in flood zones to be raised 18 inches above FEMA base flood elevation, and the Philadelphia Water Department (the "Water Department") promotes green storm water infrastructure as a source control measure to minimize flooding impacts.

CITY FINANCES AND FINANCIAL PROCEDURES

Except as otherwise noted, the financial statements, tables, statistics, and other information shown below have been prepared by the Office of the Director of Finance and can be reconciled to the financial statements in the Fiscal Year 2021 ACFR and notes therein. The Fiscal Year 2021 ACFR was prepared by the Office of the Director of Finance in conformance with guidelines adopted by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants' audit guide, Audits of State and Local Government Units and audited by the City Controller under Generally Accepted Auditing Standards.

General

Governmental funds account for their activities using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the City considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures are generally recorded when a liability is incurred, as in the case of full accrual accounting. Debt service expenditures, as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due; however, those expenditures may be accrued if they are to be liquidated with available resources.

Imposed non-exchange revenues, such as real estate taxes, are recognized when the enforceable legal claim arises and the resources are available. Derived tax revenues, such as wage, BIRT, net profits and earnings taxes, are recognized when the underlying exchange transaction has occurred and the resources are available. Grant revenues are recognized when all the applicable eligibility requirements have been met and the resources are available. All other revenue items are considered to be measurable and available only when cash is received by the City.

Revenue that is considered to be program revenue includes: (i) charges to customers or applicants for goods received, services rendered or privileges provided; (ii) operating grants and contributions; and (iii) capital grants and contributions. Internally dedicated resources are reported as general revenues rather than as program specific revenues; therefore, all taxes are considered general revenues.

The City's financial statements reflect the following three funds as major Governmental Funds:

- The General Fund is the City's primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in other funds.

- The Health Choices Behavioral Health Fund accounts for resources received from the Commonwealth. These resources are restricted to providing managed behavioral health care to residents of the City.

- The Grants Revenue Fund accounts for the resources received from various federal, Commonwealth, and private grantor agencies, including those received by the City's Department of Human Services ("DHS"). The resources are restricted to accomplishing the various objectives of the grantor agencies.

The City also reports on permanent funds, which are used to account for resources legally held in trust for use by the park and library systems of the City. There are legal restrictions on the resources of the permanent funds that require the principal to remain intact, while only the earnings may be used for the programs.

The City reports on the following fiduciary funds:

- The Municipal Pension Fund accumulates resources to provide pension benefit payments to qualified employees of the City and certain other quasi-governmental organizations.

- The PGW Retirement Reserve Fund accounts for contributions made by PGW to provide pension benefit payments to its qualified employees under its pension plan. For more information on the PGW Pension Plan (as defined herein), see "PGW PENSION PLAN."

- The Escrow Fund accounts for funds held in escrow for various purposes.

- The Employees Health & Welfare Fund accounts for funds deducted from employees' salaries for payment to various organizations.

- The Departmental Custodial Accounts account for funds held in custody by various departments of the City.

The City reports on the following major proprietary funds:

- The Water Fund accounts for the activities related to the operation of the Water and Wastewater Systems.

- The Aviation Fund accounts for the activities of the Airport System.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's ongoing operations. The principal operating revenues of the Water Fund are charges for water and sewer service. The principal operating revenues of the Aviation Fund are charges for the use of the City's airports, PHL and Northeast Philadelphia Airport. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Current City Disclosure Practices

It is the City's practice to file its ACFR, which contains the audited combined financial statements of the City, in addition to certain other information, such as the City's bond ratings and information about upcoming debt issuances, with the Municipal Securities Rulemaking Board ("MSRB") as soon as practicable after delivery of such information. For bonds issued in calendar year 2015 and thereafter, the annual filing deadline is February 28; for bonds issued prior to calendar year 2015, the annual filing deadline is 240 days after the end of the respective Fiscal Year, being February 25. The

Fiscal Year 2021 ACFR was filed with the MSRB on February 25, 2022, through the MSRB's Electronic Municipal Market Access ("EMMA") system.

A wide variety of information concerning the City is available from publications and websites of the City and others, including the City's investor information website at http://www.phila.gov/investor (the "City's Investor Website"). Any such information that is inconsistent with the information set forth in this Official Statement should be disregarded. No such information is a part of or incorporated into this Official Statement.

Independent Audit and Opinion of the City Controller

The City Controller has examined and expressed opinions on the basic financial statements of the City contained in the Fiscal Year 2021 ACFR. 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. Consequently, the City Controller expresses no opinion with respect to any of the data contained in this Official Statement other than what is contained in the basic financial statements of the City in the Fiscal Year 2021 ACFR.

Budgetary Accounting Practices

The City's budgetary process accounts for certain transactions on a basis other than generally accepted accounting principles ("GAAP"). In accordance with the City Charter, the City has formally established budgetary accounting control for its operating and capital improvement funds.

The operating funds of the City, consisting of the General Fund, nine (9) Special Revenue Funds (County Liquid Fuels Tax, Special Gasoline Tax, Health Choices Behavioral Health, Hotel Room Rental Tax, Grants Revenue, Community Development, Car Rental Tax, Housing Trust, and Acute Care Hospital Assessment) and two Enterprise Funds (Water and Aviation Funds), are subject to annual operating budgets adopted by City Council. These budgets appropriate funds for all City departments, boards and commissions by major class of expenditure within each department. Major classes are defined as: (i) personal services; (ii) purchase of services; (iii) materials and supplies; (iv) equipment; (v) contributions, indemnities, and taxes; (vi) debt service; (vii) payments to other funds; and (viii) advances and other miscellaneous payments. The appropriation amounts for each fund are supported by revenue estimates and take into account the elimination of accumulated deficits and the re-appropriation of accumulated surpluses to the extent necessary. All transfers between major classes (except for materials and supplies and equipment, which are appropriated together) must have City Council approval. Appropriations that are not expended or encumbered at Fiscal Year-end are lapsed.

The City's capital budget is adopted annually by City Council. The capital budget is appropriated by project for each department. Requests to transfer appropriations between projects must be approved by City Council. Any appropriations that are not obligated at year-end are either lapsed or carried forward to the next Fiscal Year.

Schedules prepared on the legally enacted basis differ from the GAAP basis in that both expenditures and encumbrances are applied against the current budget, adjustments affecting activity budgeted in prior years are accounted for through fund balance or as reduction of expenditures and certain interfund transfers and reimbursements are budgeted as revenues and expenditures. The primary difference between the GAAP and legal (budgetary) fund balance is due to the timing of recognizing the BIRT. The legal basis recognizes BIRT revenues in the Fiscal Year they are collected. The GAAP basis requires the City to recognize the BIRT revenues (which are primarily paid in April) for the calendar year in which the BIRT taxes are due, requiring the City to defer a portion of the April payment into the next

Fiscal Year. For more information on BIRT, see “REVENUES OF THE CITY – Business Income and Receipts Tax.”

DISCUSSION OF FINANCIAL OPERATIONS

Principal Operations

The major financial operations of the City are conducted through the General Fund. In addition to the General Fund, operations of the City are conducted through two other major governmental funds and 19 non-major governmental funds. The City operates on a July 1 to June 30 fiscal year (“Fiscal Year”) and reports on all the funds of the City, as well as its component units, in the City’s ACFR. PMA’s and PICA’s financial statements are blended with the City’s statements. The financial statements for PGW, PRA, the PPA, the School District, the Community College of Philadelphia, the Community Behavioral Health, Inc., the Delaware River Waterfront Corporation, and PAID are presented discretely.

Fund Accounting

Funds are groupings of activities that enable the City to maintain control over resources that have been segregated for particular purposes or objectives. All of the funds of the City can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

Governmental Funds. The governmental funds are used to account for the financial activity of the City’s basic services, such as: general government; economic and neighborhood development; public health, welfare and safety; cultural and recreational; and streets, highways and sanitation. The funds’ financial activities focus on a short-term view of the inflows and outflows of spendable resources, as well as on the balances of spendable resources available at the end of the Fiscal Year. The financial information presented for the governmental funds is useful in evaluating the City’s short-term financing requirements.

The City maintains 22 individual governmental funds. The City’s ACFRs, including the Fiscal Year 2021 ACFR, present data separately for the General Fund, Grants Revenue Fund, and Health Choices Behavioral Health Fund, which are considered to be major funds. Data for the remaining 19 funds are combined into a single aggregated presentation.

Proprietary Funds. The proprietary funds are used to account for the financial activity of the City’s operations for which customers are charged a user fee; they provide both a long- and short-term view of financial information. The City maintains three enterprise funds that are a type of proprietary fund – airport, water and wastewater operations, and industrial land bank.

Fiduciary Funds. The City is the trustee, or fiduciary, for its employees’ pension plans. It is also responsible for PGW’s employees’ retirement reserve assets. Both of these fiduciary activities are reported in the City’s ACFRs, including the Fiscal Year 2021 ACFR, as separate financial statements of fiduciary net assets and changes in fiduciary net assets.

See “CITY FINANCES AND FINANCIAL PROCEDURES” for a further description of these governmental, proprietary, and fiduciary funds.

Budget Procedure

The City Charter provides that, at least 90 days before the end of the Fiscal Year, the operating budget for the next Fiscal Year is prepared by the Mayor and submitted to City Council for adoption. The budget, as adopted, must be balanced and provide for discharging any estimated deficit from the current

Fiscal Year and make appropriations for all items to be funded with City revenues. The Mayor's budgetary estimates of revenues for the ensuing Fiscal Year and projection of surplus or deficit for the current Fiscal Year may not be altered by City Council. Not later than the passage of the operating budget ordinance, City Council must enact such revenue measures as will, in the opinion of the Mayor, yield sufficient revenues to balance the budget. While the City Charter requires the Mayor to submit the operating budget for the next Fiscal Year to City Council at least 90 days before the end of the Fiscal Year, such submissions have occasionally been submitted after such deadline. There is no practical consequence to submitting the proposed budget after the 90-day deadline in the City Charter.

The City Charter provides that, at least 30 days before the end of the Fiscal Year, City Council must adopt by ordinance an operating budget and a capital budget for the ensuing Fiscal Year and a capital program for the six ensuing Fiscal Years. If the Mayor disapproves the bills, he must return them to City Council with the reasons for his disapproval at the first meeting thereof held not less than ten days after he receives such bills. If the Mayor does not return the bills within the time required, they become law without his approval. If City Council passes the bills by a vote of two-thirds of all of its members within seven days after the bills have been returned with the Mayor's disapproval, they become law without his approval. While the City Charter requires that City Council adopt the ordinances for the operating and capital budgets at least 30 days before the end of the Fiscal Year, in practice, such ordinances are often adopted after such deadline, but before the end of such Fiscal Year. For example, the proposed Fiscal Year 2023 operating budget was presented to City Council on March 31, 2022, approved by City Council on June 23, 2022, and signed by the Mayor on June 27, 2022. There is no practical consequence to adopting the budget ordinances after the deadline in the City Charter, but before the end of the Fiscal Year.

The capital program is prepared annually by the Planning Commission to present the capital expenditures planned for each of the six ensuing Fiscal Years, including the estimated total cost of each project and the sources of funding (local, state, federal, and private) estimated to be required to finance each project. The capital improvement plans for the Water Department and the Division of Aviation are included in the City's capital program. The capital program is reviewed by the Mayor and transmitted to City Council for adoption with his recommendation thereon. The Capital Program ordinance for Fiscal Years 2023-2028 (the "Fiscal Year 2023-2028 Adopted Capital Program") was approved by City Council on June 23, 2022, and signed by the Mayor on June 27, 2022 (see Table 48).

The capital budget ordinance, authorizing in detail the capital expenditures to be made or incurred in the ensuing Fiscal Year from City Council appropriated funds, is adopted by City Council concurrently with the capital program. The capital budget must be in full conformity with that part of the capital program applicable to the Fiscal Year that it covers.

For more information on the City's budgets and five-year plans, see "– Current Financial Information" and the text following Table 2. For more information on the City's capital program, see "CITY CAPITAL PROGRAM" herein.

Budget Stabilization Reserve

In April 2011, the City adopted an amendment to the City Charter that established the "Budget Stabilization Reserve." Under the City Charter, if the projected General Fund balance for the upcoming Fiscal Year equals or exceeds three percent of General Fund appropriations for such Fiscal Year, the annual operating budget ordinance is required to provide for appropriations to a Budget Stabilization Reserve. Such reserve is to be created and maintained by the Director of Finance as a separate fund, which may not be commingled with any other funds of the City. City Council can appropriate additional amounts to the Budget Stabilization Reserve by ordinance, no later than at the time of passage of the annual operating budget ordinance and only upon recommendation of the Mayor. Total appropriations to the Budget Stabilization Reserve are subject to a limit of five percent of General Fund appropriations. Amounts in the Budget Stabilization Reserve from the prior Fiscal Years, including any investment earnings certified by the Director of Finance, are to remain on deposit therein. The City made a deposit of $34.3 million to the Budget Stabilization Reserve, pursuant to the adopted budget for Fiscal Year 2020.

Withdrawals from the Budget Stabilization Reserve are permitted only upon (i) approval by ordinance of a transfer of appropriations from the Budget Stabilization Reserve and only for the purposes set forth in such transfer ordinance and (ii) either (1) a certification by the Director of Finance that General Fund revenues actually received by the City during the prior Fiscal Year were at least one percent less than the General Fund revenues set forth in the Mayor's estimate of receipts, or (2) a certification by the Director of Finance that such withdrawal is necessary to avoid either a material disruption in City services or to fund emergency programs necessary to protect the health, safety or welfare of City residents, and that it would be fiscally imprudent to seek emergency appropriations pursuant to the City Charter. Any such certification must be approved either by a resolution adopted by two-thirds of all of the members of City Council or an agency of the Commonwealth with responsibility for ensuring the fiscal stability of the City. For information on the withdrawal from the Budget Stabilization Reserve for Fiscal Year 2021, see "OVERVIEW – Fiscal Health of the City – Budget Stabilization Reserve."

There was no payment to the Budget Stabilization Reserve in Fiscal Year 2021. The Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan do not include any payments to the Budget Stabilization Reserve in Fiscal Year 2022. In the Thirty-First Five-Year Plan, the City projects payments to the Budget Stabilization Reserve in Fiscal Years 2023, 2024, 2025, and 2026, in the amounts of $40.1 million, $41.6 million, $43.2 million, and $41.1 million, respectively.

Annual Financial Reports

The City is required by the City Charter to issue, within 120 days after the close of each Fiscal Year, a statement as of the end of the Fiscal Year showing the balances in all funds of the City, the amounts of the City's known liabilities, and such other information as is necessary to furnish a true picture of the City's financial condition (the "Annual Financial Reports"). The Annual Financial Reports, which are released on or about October 28 of each year, are intended to meet these requirements and are unaudited. As described above, the audited financial statements of the City are contained in its ACFR, which is published at a later date. The Annual Financial Reports contain financial statements for all City governmental funds and blended component units presented on the modified accrual basis. The proprietary and fiduciary funds are presented on the full accrual basis. They also contain budgetary comparison schedules for those funds that are subject to an annual budget. The financial statements of the City's discretely presented component units that are available as of the date of the Annual Financial Reports are also presented. Historically, the results for General Fund balance have not materially changed between the Annual Financial Reports and the ACFRs.

The Annual Financial Report for Fiscal Year 2021 was released on October 28, 2021. As noted herein, the Fiscal Year 2021 ACFR was filed with the MSRB on February 25, 2022, through the EMMA system. See "CITY FINANCES AND FINANCIAL PROCEDURES – Current City Disclosure Practices."

Five-Year Plans of the City

The PICA Act requires the City to annually prepare a financial plan that includes projected revenues and expenditures of the principal operating funds of the City for five Fiscal Years consisting of the current Fiscal Year and the subsequent four Fiscal Years. Each five-year plan, which must be approved by PICA, is required, among other things, to eliminate any projected deficits, balance the Fiscal Year budgets, and provide procedures to avoid fiscal emergencies. Under the PICA Act, each five-year plan is required to be submitted at least 100 days prior to the beginning of the next Fiscal Year or on such other date as PICA may approve upon the request of the City. It is the City's practice to submit its five-year plans to PICA after City Council approves, and the Mayor signs, the operating budget ordinance for the next Fiscal Year, which is typically after the 100-day deadline. For example, the Thirty-First Five-Year Plan was submitted to PICA on June 30, 2022, after City Council approved, and the Mayor signed, the Fiscal Year 2023 Adopted Budget. PICA approved the Thirty-First Five-Year Plan at a meeting on July 27, 2022 and is expected to release a report in connection therewith in the coming weeks. See "– Current Financial Information" and the text following Table 2.

Quarterly Reporting to PICA

The PICA Act requires the City to prepare and submit quarterly reports to PICA so that PICA may determine whether the City is in compliance with the then-current five-year plan. Each quarterly report is required to describe actual or current estimates of revenues, expenditures, and cash flows compared to budgeted revenues, expenditures, and cash flows by covered funds for each month in the previous quarter and for the year-to-date period from the beginning of the then-current Fiscal Year of the City to the last day of the fiscal quarter or month, as the case may be, just ended. Each such report is required to explain any variance existing as of such last day.

Under the PICA Agreement, a "variance" is deemed to have occurred as of the end of a reporting period if (i) a net adverse change in the fund balance of a covered fund (i.e., a principal operating fund) of more than 1% of the revenues budgeted for such fund for that Fiscal Year is reasonably projected to occur, such projection to be calculated from the beginning of the Fiscal Year for the entire Fiscal Year, or (ii) the actual net cash flows of the City for a covered fund are reasonably projected to be less than 95% of the net cash flows of the City for such covered fund for that Fiscal Year originally forecast at the time of adoption of the budget, such projection to be calculated from the beginning of the Fiscal Year for the entire Fiscal Year.

PICA may not take any action with respect to the City for variances if the City: (i) provides a written explanation of the variance that PICA deems reasonable; (ii) proposes remedial action that PICA believes will restore overall compliance with the then-current five-year plan; (iii) provides information in the immediately succeeding quarterly financial report demonstrating to the reasonable satisfaction of PICA that the City is taking remedial action and otherwise complying with the then-current five-year plan; and (iv) submits monthly supplemental reports until it regains compliance with the then-current five-year plan.

A failure by the City to explain or remedy a variance would, upon certification by PICA, require the Secretary of the Budget of the Commonwealth to withhold funds due to the City from the Commonwealth or any of its agencies (including, with certain exceptions, all grants, loans, entitlements and payments payable to the City by the Commonwealth, including payment of the portion of the PICA Tax, as further described under "DEBT OF THE CITY – PICA Bonds" below, otherwise payable to the City). The City uses its Quarterly City Manager's Reports to satisfy the quarterly reporting requirement to PICA. Such reports are released within 45 days following the end of the applicable quarter and the most recent versions of such reports are available on the City's Investor Website. The most recent Quarterly City Manager's Report is the report for the period ending March 31, 2022, which was released on May 16, 2022 (the "FY 2022 Third Quarter QCMR"). The next Quarterly City Manager's Report is the report for the period ending June 30, 2022, and it is expected to be released on or about August 15, 2022.

Summary of Operations

The following table presents the summary of operations for the General Fund for Fiscal Years 2019-2021, budgeted amounts and current estimates for Fiscal Year 2022, and budgeted amounts for Fiscal Year 2023. For a description of the legally enacted basis on which the City's budgetary process accounts for certain transactions, see "CITY FINANCES AND FINANCIAL PROCEDURES – Budgetary Accounting Practices." "Current Estimate," as used in the tables and text below, refers (except as otherwise indicated) to the most recently revised estimates for Fiscal Year 2022, which were released by the City on June 23, 2022, as part of the Thirty-First Five-Year Plan, unless otherwise noted herein.

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Table 1
General Fund
Summary of Operations (Legal Basis)
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[(1), (2)]

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022 (June 29, 2021)	Current Estimate 2022 (June 23, 2022)	Adopted Budget 2023 (June 23, 2022)
Revenues						
Real Property Taxes	$696.6	$699.1	$723.3	$723.1	$718.7	$813.4
Wage and Earnings Tax	1,581.9	1,599.2	1,450.7	1,486.4	1,538.7	1,625.2
Net Profits Tax	35.8	29.2	44.4	30.4	34.6	36.4
Business Income and Receipts Tax	540.9	534.2	541.6	521.2	633.2	631.5
Sales Tax[(3)]	224.2	204.6	230.4	216.4	268.4	277.6
Other Taxes[(4)]	458.6	419.7	363.3	367.8	652.1	553.7
Philadelphia Beverage Tax[(5)]	76.9	69.9	70.2	72.5	76.9	77.9
Total Taxes	3,614.8	3,555.9	3,423.9	3,417.8	3,922.6	4,015.7
Locally Generated Non-Tax Revenue	349.1	365.1	344.2	364.4	373.2	372.8
Revenue from Other Governments						
Net PICA Taxes Remitted to the City[(6)]	493.6	495.9	509.0	490.8	509.8	560.9
Other Revenue from Other Governments[(7)]	311.1	362.6	327.6	338.3	362.8	352.5
Total Revenue from Other Governments	804.7	858.5	836.6	829.1	872.6	913.4
Receipts from Other City Funds	51.7	54.0	87.8[(8)]	645.9[(9)]	322.3[(9)]	401.0[(9)]
Total Revenue	4,820.3	4,833.6	4,692.5	5,257.2	5,490.7	5,702.8
Obligations/Appropriations						
Personal Services	1,749.8	1,874.2	1,811.4	1,888.8	1,952.1	2,057.0
Purchase of Services[(10)]	915.5	1,016.8	941.4	1,094.5	1,080.9	1,236.0
Materials, Supplies and Equipment	113.3	125.6	90.9	118.8	143.6	143.5
Employee Benefits	1,371.1[(11)]	1,363.4[(11)]	1,275.1[(11)]	1,438.6[(11)]	1,504.8[(11)]	1,603.5[(11)]
Indemnities, Contributions, and Refunds[(12)]	279.8	342.5	368.0	386.8	390.9	408.2
City Debt Service[(13)]	159.8	159.2	178.5	192.7	192.7	193.7
Payments to Other City Funds	183.2[(14)]	154.8[(8)]	52.3	48.8	45.0	74.4
Advances & Miscellaneous Payments[(15)]	0.0	0.0	0.0	100.0[(16)]	9.9[(16)]	86.0[(16)]
Payment to Budget Stabilization Reserve	0.0	0.0[(8)]	0.0	0.0	0.0	40.1
Total Obligations/Appropriations	4,772.4	5,036.5	4,717.8	5,268.9	5,319.9	5,842.5
Operating Surplus (Deficit) for the Year	47.9	(202.9)	(25.3)	(11.7)	170.8	(139.7)
Net Adjustments – Prior Year[(17)]	22.0	54.9	33.1	19.5	23.0	19.5
Cumulative Fund Balance Prior Year	368.8	438.7	290.7	78.7[(18)]	298.5[(18)]	492.4
Cumulative Adjusted Year End Fund Balance (Deficit)	$438.7	$290.7	$298.5[(18)]	$86.5	$492.4	$372.2

(1) Sources: For Fiscal Years 2019-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budge and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023 Adopted Budget, the Fiscal Year 2023 Adopted Budget.
(2) Figures may not sum due to rounding.
(3) For more information on the City Sales Tax, see "REVENUES OF THE CITY – Sales and Use Tax."
(4) Includes Amusement Tax, Real Property Transfer Tax, Parking Lot Tax, Smokeless Tobacco Tax and miscellaneous taxes.
(5) The Philadelphia Beverage Tax (as defined herein) taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017.
(6) For a detailed breakdown of "Net PICA Taxes Remitted to the City," see Table 43. Such figures reflect revenues received by the City from the PICA Tax of 1.50%, the proceeds of which are remitted to PICA for payment of debt service on PICA Bonds and PICA expenses. After paying debt service and expenses, net proceeds from the tax are remitted to the City as Revenue from Other Governments. See "DEBT OF THE CITY – PICA Bonds."
(7) For a detailed breakdown of "Other Revenue from Other Governments," see Table 12. "Other Revenue from Other Governments" includes state gaming revenues.
(8) In Fiscal Year 2020, the City made a deposit of $34.3 million to the Budget Stabilization Reserve. In Fiscal Year 2021, the City drew down on such funds and redirected them to spending. For Fiscal Year 2021, such funds are shown as a revenue in "Revenues from Other Funds of City."
(9) In the Fiscal Year 2022 Adopted Budget, the City included approximately $575 million in federal COVID-19 relief funding from the American Rescue Plan. In the Thirty-First Five-Year Plan, the current estimate for Fiscal Year 2022 assumes approximately $250 million in federal COVID-19 relief funding from the American Rescue Plan. In the Fiscal Year 2023 Adopted Budget, the City includes approximately $335 million in federal COVID-19 relief funding from the American Rescue Plan.
(10) Includes debt service on lease and service agreement financings.
(11) For Fiscal Year 2019, includes $52.1 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2020, includes $42.7 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2021, includes $55.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2022 (Adopted Budget), assumes $48.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2022 (Current Estimate), assumes $74.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2023 (Adopted Budget), assumes $78.8 million from such tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(12) Includes contributions to the School District. See also Table 21 and the accompanying text herein.
(13) Includes debt service on General Obligation Debt (as defined herein) and, if issued and outstanding, interest on tax and revenue anticipation notes; excludes debt service on PICA Bonds and lease and service agreement financings.
(14) Includes $20.0 million for recession-related expenses.
(15) Advances & Miscellaneous Payments includes certain budgeted reserves for a given Fiscal Year. Any portion of such reserves that is not used to offset the applicable stated costs will increase the General Fund balance at the end of the given Fiscal Year, if not used by the City for other purposes.
(16) For Fiscal Year 2022 (Adopted Budget), includes $25.0 million in the Labor Reserve and $75.0 million in the Recession, Inflation, and Reopening Reserve. For Fiscal Year 2022 (Current Estimate), includes $9.9 million in the Labor Reserve and $0.0 million in the Recession, Inflation, and Reopening Reserve. For Fiscal Year 2023 (Adopted Budget), includes $54.0 million in the Labor Reserve and $32.0 million in the Recession, Inflation, and Reopening Reserve.
(17) "Net Adjustments – Prior Year" includes the cancellation of commitments from previous Fiscal Years during the current Fiscal Year. Such figure for Fiscal Year 2021 includes a $22 million contribution to the Municipal Pension Fund and the liquidation of $47 million of pay-as-you-go capital encumbrances, each of which was obligated in Fiscal Year 2020.
(18) In its Fiscal Year 2022 Adopted Budget, the City projected that Fiscal Year 2021 would end with a General Fund balance of $78.7 million. In the Fiscal Year 2021 ACFR, the City reported that Fiscal Year 2021 ended with a General Fund balance of $298.5 million. Such number has been included as the "Cumulative Fund Balance Prior Year" in the Thirty-First Five-Year Plan.

Current Financial Information

Table 2 below shows General Fund balances for Fiscal Year 2021, budgeted amounts and current estimates for Fiscal Year 2022, and budgeted amounts for Fiscal Year 2023.

Table 2
General Fund – Fund Balance Summary
(Amounts in Thousands of USD)[1]

	Fiscal Year 2021 Actual[2] (June 30, 2021)	Fiscal Year 2022 Adopted Budget[2] (June 29, 2021)	Fiscal Year 2022 Current Estimate[2] (June 23, 2022)	Fiscal Year 2023 Adopted Budget[2] (June 23, 2022)
REVENUES				
Taxes	$3,423,857[3]	$3,417,808[3]	$3,922,637[3]	$4,015,653[3]
Locally Generated Non – Tax Revenues	344,246	364,391	373,199	372,765
Revenue from Other Governments	836,598	829,140	872,621	913,380
Revenues from Other Funds of City	87,789[4]	645,906[5]	322,250[5]	400,959[5]
Total Revenue	**$4,692,490**	**$5,257,245**	**$5,490,707**	**$5,702,757**
OBLIGATIONS / APPROPRIATIONS				
Personal Services	$1,811,422	$1,888,766	$1,952,143	$2,057,006
Personal Services – Employee Benefits	1,275,097[6]	1,438,593[6]	1,504,837[6]	1,603,511[6]
Purchase of Services[7]	941,423	1,094,526	1,080,850	1,236,034
Materials, Supplies, and Equipment	90,940	118,809	143,619	143,529
Contributions, Indemnities, and Taxes	367,987	386,793	390,907	408,158
Debt Service[8]	178,543	192,667	192,667	193,710
Payments to Other Funds	52,342	48,792	44,952	74,404
Advances & Miscellaneous Payments[9]	0	100,000[10]	9,889[10]	86,000[10]
Payment to Budget Stabilization Reserve	0	0	0	40,128
Total Obligations / Appropriations	**$4,717,754**	**$5,268,946**	**$5,319,864**	**$5,842,480**
Operating Surplus (Deficit)	**(25,264)**	**(11,701)**	**170,843**	**(139,723)**
OPERATIONS IN RESPECT TO PRIOR FISCAL YEARS				
Net Adjustments – Prior Years[11]	33,134	19,500	23,032	19,500
Operating Surplus/(Deficit) & Prior Year Adj.	7,870	7,799	193,875	(120,223)
Prior Year Fund Balance	290,672	78,748[12]	298,542[12]	492,417
Year End Fund Balance	**$298,542**[12]	**$86,547**	**$492,417**	**$372,194**

(1) Figures may not sum due to rounding.
(2) Sources: For Fiscal Year 2021, the Fiscal Year 2021 ACFR. For Fiscal Year 2022 Adopted Budget, the Fiscal Year 2022 Adopted Budget. For Fiscal Year 2022 Current Estimate, the Thirty-First Five-Year Plan. For Fiscal Year 2023 Adopted Budget, the Fiscal Year 2023 Adopted Budget.
(3) For Fiscal Year 2021, includes $70.2 million in revenue from such tax. For Fiscal Year 2022 Adopted Budget, assumes $72.5 million in revenue from such tax. For Fiscal Year 2022 Current Estimate, assumes $76.9 million in revenue from such tax. For Fiscal Year 2023 Adopted Budget, assumes $77.9 million in revenue from such tax. The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017.
(4) In Fiscal Year 2020, the City made a deposit of $34.3 million to the Budget Stabilization Reserve. In Fiscal Year 2021, the City drew down on such funds and redirected them to spending. For Fiscal Year 2021, such funds are shown as a revenue in "Revenues from Other Funds of City."
(5) In the Fiscal Year 2022 Adopted Budget, the City included approximately $575 million in federal COVID-19 relief funding from the American Rescue Plan. In the Thirty-First Five-Year Plan, the current estimate for Fiscal Year 2022 assumes approximately $250 million in federal COVID-19 relief funding from the American Rescue Plan. In the Fiscal Year 2023 Adopted Budget, the City includes approximately $335 million in federal COVID-19 relief funding from the American Rescue Plan.
(6) For Fiscal Year 2021, include $55.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2022 (Adopted Budget), assumes $48.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2022 (Current Estimate), assumes $74.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2023 (Adopted Budget), assumes $78.8 million from such tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(7) Includes debt service on lease and service agreement financings.
(8) Includes debt service on General Obligation Debt (as defined herein) and, if issued and outstanding, interest on tax and revenue anticipation notes; excludes debt service on PICA Bonds and lease and service agreement financings.
(9) Advances & Miscellaneous Payments includes certain budgeted reserves for a given Fiscal Year. Any portion of such reserves that is not used to offset the applicable stated costs will increase the General Fund balance at the end of the given Fiscal Year, if not used by the City for other purposes.
(10) For Fiscal Year 2022 (Adopted Budget), includes $25.0 million in the Labor Reserve and $75.0 million in the Recession, Inflation, and Reopening Reserve. For Fiscal Year 2022 (Current Estimate), includes $9.9 million in the Labor Reserve and $0.0 million in the Recession, Inflation, and Reopening Reserve. For Fiscal Year 2023 (Adopted Budget), includes $54.0 million in the Labor Reserve and $32.0 million in the Recession, Inflation, and Reopening Reserve.
(11) "Net Adjustments – Prior Years" includes the cancellation of commitments from previous Fiscal Years during the current Fiscal Year. Such figure for Fiscal Year 2021 includes a $22 million contribution to the Municipal Pension Fund and the liquidation of $47 million of pay-as-you-go capital encumbrances, each of which was obligated in Fiscal Year 2020.
(12) In its Fiscal Year 2022 Adopted Budget, the City projected that Fiscal Year 2021 would end with a General Fund balance of $78.748 million. In the Fiscal Year 2021 ACFR, the City reported that Fiscal Year 2021 ended with a General Fund balance of $298.542 million. Such number has been included as the "Prior Year Fund Balance" in the Thirty-First Five-Year Plan.

The following discussion of the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the Fiscal Year 2023 Adopted Budget, and the Thirty-First Five-Year Plan, as applicable, is based, in part, on estimates, projections, and forward-looking statements related to Fiscal Year 2022 and Fiscal Year 2023. No assurance can be given that the applicable budget estimates and forward-looking statements will be realized. The accuracy of such budget estimates and forward-looking statements cannot be verified until after the close of the applicable Fiscal Year and the completion of the related audit.

Fiscal Year 2022 Adopted Budget and Thirtieth Five-Year Plan. The City's proposed Fiscal Year 2022 operating budget was submitted by the Mayor to City Council on April 15, 2021, along with the City's proposed five-year plan for Fiscal Years 2022-2026. On June 25, 2021, City Council approved the Fiscal Year 2022 operating budget ordinance, which was signed by the Mayor on June 28, 2021 (the "Fiscal Year 2022 Adopted Budget").

On June 29, 2021, the City submitted to PICA its FY 2022-2026 Five Year Financial Plan (the "Original Plan"). PICA recommended approval of such plan on July 27, 2021. PICA staff, in recommending that PICA approve the Original Plan, noted that the revenue and expenditure projections presented in the Original Plan were [quoting from the PICA Act] "based on reasonable and appropriate assumptions and methods of estimation . . . consistently applied." The PICA staff report concluded that "[a]lthough PICA is confident that the [Original Plan] is based on reasonable and appropriate assumptions, and year end fund balances are positive throughout the life of the [Original Plan], certain factors were identified that might present risks to the [Original Plan]." The PICA report identified such factors as: (i) a slower than projected recovery from the COVID-19 pandemic; (ii) low General Fund balance levels; (iii) increased future labor costs; (iv) increased pension funding; and (v) rising overtime costs. The PICA staff report also highlighted certain other financial concerns that could impact the City's financial condition, including, among others (a) speculative revenues from sources such as locally generated non-tax revenue and revenue from other governments; (b) rising employee health benefit costs; (c) increased funding of the School District; and (d) the lack of additional payments to the Budget Stabilization Reserve over the course of the Original Plan.

On October 29, 2021, the City submitted to PICA its Revised FY 2022-2026 Five Year Financial Plan (the "Revised Plan"). The City was required to submit the Revised Plan as a result of the new labor agreements with AFSCME DC 33, the FOP Lodge No. 5 (Police Department), and AFSCME DC 47, each covering Fiscal Years 2022-2024. The combined additional labor costs from such agreements are estimated at over $618.5 million over the course of Fiscal Years 2022-2026, exceeding the Labor Reserve of $200 million, as included in the Original Plan. For more information on the current status of the City's labor contracts, see "EXPENDITURES OF THE CITY – Overview of City Employees" herein.

PICA recommended approval of the Revised Plan on November 16, 2021 and issued an associated report. In such report, PICA determined that the assumptions in the Revised Plan were mostly consistent with the Original Plan and continue to be reasonable and appropriate. Specifically, the report noted the following key elements of the Revised Plan: (i) a higher than expected estimated year end fund balance for Fiscal Year 2021 of $298.5 million, an almost $220 million increase over the previous estimate of $78.7 million, which is primarily attributable to higher tax revenue collections and lower obligations; (ii) higher projected year end fund balances for Fiscal Years 2022-2025 (such balance for Fiscal Year 2026 is projected to be lower than in the Original Plan); (iii) maintaining the Recession, Inflation, and Reopening Reserve and Labor Reserve for Fiscal Years 2023-2026, the latter to allow the City account for the reasonable expectation of negotiating labor contracts with the City's remaining bargaining units; (v) a contribution to the Budget Stabilization Reserve in Fiscal Year 2025; and (vi) the modification of the amount of the federal relief funding from the American Rescue Plan projected to be used in Fiscal Year 2022 (reduced from approximately $575 million to $250 million; remainder expected to be used in Fiscal Years 2024 and 2025). The PICA staff report also noted that many of the same risks from the Original Plan were also present in the Revised Plan and further highlighted the risk factors related to (a) a possible slower than projected recovery from the pandemic; (b) low General fund balance levels; (c) and increased pension funding.

The Revised Plan and the Original Plan are referred to collectively herein as the "Thirtieth Five-Year Plan."

Fiscal Year 2022 Current Estimates. The current estimates for Fiscal Year 2022 are derived from information included in the Thirty-First Five-Year Plan. In the Thirty-First Five-Year Plan, the City estimates that it will end Fiscal Year 2022 with a General Fund balance (on the legally enacted basis) of approximately $492.4 million ($405.9 million higher than projected in the Fiscal Year 2022 Adopted Budget).

For Fiscal Years 2023-2027, the Thirty-First Five-Year Plan projects that the City will end such Fiscal Years with General Fund balances (on the legally enacted basis) of approximately (i) $372.2 million (Fiscal Year 2023), (ii) $316.5 million (Fiscal Year 2024), (iii) $420.6 million (Fiscal Year 2025), (iv) $167.7 million (Fiscal Year 2026), and (v) $86.6 million (Fiscal Year 2027).

Fiscal Year 2023 Adopted Budget and Thirty-First Five-Year Plan. The City's proposed Fiscal Year 2023 operating budget was submitted by the Mayor to City Council on March 31, 2022, along with the City's proposed five-year plan for Fiscal Years 2023-2027. On June 23, 2022, City Council approved the Fiscal Year 2023 operating budget ordinance, which was signed by the Mayor on June 27, 2022 (the "Fiscal Year 2023 Adopted Budget").

On June 30, 2022, the City submitted to PICA its FY 2023-2027 Five Year Financial Plan (the "Thirty-First Five-Year Plan"). PICA approved the Thirty-First Five-Year Plan at a meeting on July 27, 2022 and is expected to release a report in connection therewith in the coming weeks.

For information on the current assessment of the fiscal impact of COVID-19 on the City, see "OVERVIEW – Fiscal Health of the City – COVID-19."

For more information on the City's annual budget process under the City Charter and the five-year financial plans and quarterly reporting required under the PICA Act, see "– Budget Procedure," "– Five-Year Plans of the City," and "– Quarterly Reporting to PICA," above.

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REVENUES OF THE CITY

General

Prior to 1939, the City relied heavily on the real estate tax as the mainstay of its revenue system. In 1932, the General Assembly adopted an act (commonly referred to as the Sterling Act) under which the City is permitted to levy any tax that was not specifically pre-empted by the Commonwealth. Acting under the Sterling Act and other Pennsylvania legislation, the City has taken various steps over the years to broaden its sources of income, including: (i) enacting the wage, earnings, and net profits tax in 1939; (ii) introducing a sewer service charge to make the sewage treatment system self-sustaining after 1945; (iii) requiring under the City Charter that the water, sewer, and other utility systems be fully self-sustaining; (iv) enacting the Mercantile License Tax (a gross receipts tax on business done within the City) in 1952, which was replaced as of the commencement of Fiscal Year 1985 by the Business Privilege Tax (renamed the Business Income and Receipts Tax in May 2012), and (v) enacting the City Sales Tax (as defined herein) for City general revenue purposes effective beginning in Fiscal Year 1992.

Major Revenue Sources

The City currently derives its revenues primarily from various taxes, non-tax revenues, and receipts from other governments. See Table 3 for General Fund tax revenues for Fiscal Years 2019-2021, the budgeted amounts and current estimates for Fiscal Year 2022, and the budgeted amounts for Fiscal Year 2023. The following discussion of the City's revenues does not take into account revenues in the non-debt related funds.

Table 3 provides a detailed breakdown of the "Total Taxes" line from Table 1 above. Table 3 does not include "Revenues from Other Governments," which consists of "Net PICA Taxes Remitted to the City" and "Other Revenue from Other Governments." "Net PICA Taxes Remitted to the City" is set forth in Table 1 and a detailed breakdown of such revenues is shown in Table 43. "Other Revenue from Other Governments" is set forth in Table 1 and a detailed breakdown of such revenues is shown in Table 12.

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Table 3
General Fund Tax Revenues
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD) (1), (2), (3)

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022 (June 29, 2021)	Current Estimate 2022 (June 23, 2022)	Adopted Budget 2023 (June 23, 2022)
Real Property Taxes						
Current	$658.2	$671.8	$693.9	$696.3	$689.9	$785.2
Prior	38.4	27.3	29.4	26.7	28.7	28.2
Total	$696.6	$699.1	$723.3	$723.1	$718.7	$813.4
Wage and Earnings Tax[4]						
Current	$1,577.5	$1,591.9	$1,447.7	$1,551.0	$1,533.3	$1,619.8
Prior	4.4	7.3	3.0	(64.6)	5.4	5.4
Total	$1,581.9	$1,599.2	$1,450.7	$1,486.4	$1,538.7	$1,625.2
Business Taxes						
Business Income and Receipts Tax Current & Prior	$540.9	$534.2	$541.6	$521.2	$633.2	$631.5
Net Profits Tax						
Current	$29.5	$22.5	$42.5	$25.7	$29.9	$31.7
Prior	6.4	6.7	1.9	4.7	4.7	4.7
Subtotal Net Profits Tax	$35.8	$29.2	$44.4	$30.4	$34.6	$36.4
Total Business and Net Profits Taxes	$576.7	$563.4	$586.0	$551.6	$667.8	$668.0
Other Taxes						
Sales and Use Tax[5]	$224.2	$204.6	$230.4	$216.4	$268.4	$277.6
Amusement Tax	26.4	18.4	2.9	13.0	21.8	22.7
Real Property Transfer Tax	328.4	319.8	304.0	294.9	537.7	418.3
Parking Taxes	99.3	77.3	53.2	56.4	88.3	93.1
Other Taxes	4.4	4.3	3.1	3.6	4.3	19.4
Subtotal Other Taxes	$682.7	$624.4	$593.7	$584.3	$920.5	$831.2
Philadelphia Beverage Tax[6]	76.9	69.9	70.2	72.5	76.9	77.9
TOTAL TAXES	**$3,614.8**	**$3,555.9**	**$3,423.9**	**$3,417.8**	**$3,922.6**	**$4,015.7**

(1) Sources: For Fiscal Years 2019-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.
(2) See Table 7 in the Fiscal Year 2021 ACFR for tax rates.
(3) Figures may not sum due to rounding.
(4) Does not include the PICA Tax of 1.50%, the proceeds of which are remitted to PICA for payment of debt service on PICA Bonds and PICA expenses. After paying debt service and expenses, net proceeds from the tax are remitted to the City as Revenue from Other Governments. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.
(5) For more information on the City Sales Tax, see "– Sales and Use Tax" and Table 11.
(6) The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017.

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Wage, Earnings, and Net Profits Taxes

The largest tax revenue source (comprising approximately 42.4% of all tax revenues in Fiscal Year 2021) is the wage, earnings, and net profits tax (collectively, the "Wage, Earnings, and Net Profits Tax"). The Wage and Earnings Tax is collected from all employees working within City limits, and all City residents regardless of work location. The Net Profits Tax is collected on the net profits from the operation of a trade, business, profession, enterprise or other activity conducted by individuals, partnerships, associations or estates and trusts within the City limits. The following table sets forth the resident and non-resident Wage, Earnings, and Net Profits Tax rates for Fiscal Years 2019-2022, the annual Wage, Earnings, and Net Profits Tax receipts in Fiscal Years 2019-2021, the budgeted amount and current estimate of such receipts for Fiscal Year 2022, and the budgeted amount of such receipts for Fiscal Year 2023.

Table 4
Summary of Wage, Earnings, and Net Profits Tax Rates and Receipts
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)[(1)]

Fiscal Year	Resident Wage, Earnings and Net Profits Tax Rates[(2)]	Non-Resident Wage, Earnings and Net Profits Tax Rates	Annual Wage, Earnings and Net Profits Tax Receipts (including PICA Tax) (Amounts in Millions of USD)[(3)]
2019	3.8809%	3.4567%	$2,146.4 (Actual)
2020	3.8712%	3.4481%	$2,162.8 (Actual)
2021	3.8712%	3.5019%	$2,019.3 (Actual)
2022	3.8398%	3.4481%	$2,044.7 (Adopted Budget)
			$2,120.2 (Current Estimate)
2023	3.79%	3.44%	$2,245.5 (Adopted Budget)

(1) See Table 7 in the Fiscal Year 2021 ACFR for tax rates for Fiscal Years 2018-2021. See the Thirtieth Five-Year Plan for tax rates for Fiscal Year 2022.
(2) Includes PICA Tax. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.
(3) Sources: For Fiscal Years 2018-2021, the City's ACFRs for the City's annual Wage, Earnings, and Net Profits Tax receipts and the City's Quarterly City Manager's Reports for gross PICA Tax (see first column in Table 43). For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the FY 2022 Third Quarter QCMR, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.

Commonwealth funding from gaming revenues is mandated by statute to be used to reduce the resident and nonresident Wage, Earnings, and Net Profits Tax rate. Gaming revenues have averaged approximately $86.3 million in Fiscal Years 2018-2021. For Fiscal Year 2022, the budgeted amount and current estimate of gaming revenues is $86.3 million. For Fiscal Year 2023, the budgeted amount of gaming revenues is $86.3 million.

In a 2015 decision by the Supreme Court of the United States (*Comptroller of the Treasury of Maryland v. Wynne*, 135 S. Ct. 1787 (2015)), a state's failure to provide certain credits against its personal income tax was held to have violated the dormant Commerce Clause of the United States Constitution. Such personal income tax was applied to income earned outside of the state of residency, and residents were not given a credit for income taxes paid to the state where such income was earned, resulting, in the circumstances presented, in taxing income earned interstate at a rate higher than income earned intrastate. The City provides a credit to resident taxpayers against their respective wage, earnings, and net profits tax liabilities for similar taxes paid to another locality, but does not provide a credit for similar taxes paid to another state. Taxpayers have challenged the City's refusal to grant a credit for taxes paid to other states and have appealed to the Pennsylvania Supreme Court on such matters. To date, the City's position has been upheld by the Tax Review Board, the Court of Common Pleas, and the Commonwealth Court. The Pennsylvania Supreme Court has agreed to hear the taxpayer's further appeal from those decisions. The City estimates the cost of current appeals to be approximately $10 million.

Business Income and Receipts Tax

Pursuant to The First Class City Business Tax Reform Act of 1984, City Council imposed a business tax measured by gross receipts, net income or the combination of the two. The same year, City Council by ordinance repealed the Mercantile License Tax and the General Business Tax and imposed the Business Privilege Tax. As of May 1, 2012, the Business Privilege Tax was renamed the Business Income and Receipts Tax (or BIRT). The BIRT allows for particular allocations and tax computations for regulated industries, public utilities, manufacturers, wholesalers, and retailers. Rental activities are usually considered to be business activities. Every estate or trust (whether the fiduciary is an individual or a corporation) must file a BIRT return if the estate or trust is engaged in any business or activity for profit within the City. There are also credit programs where meeting the requirement of the program allows for a credit against the BIRT. All persons subject to both the BIRT and the Net Profits Tax are entitled to apply a credit of 60% of the net income portion of their BIRT liability against what is due on the Net Profits Tax to the maximum of the Net Profits Tax liability for that tax year.

In November 2011, legislation was enacted to halt a previously enacted program of reducing the gross receipts portion of the BIRT and to commence reductions in the net income portion of the BIRT. The following table provides a summary of BIRT rates for tax years 2012-2024. Future BIRT rates remain subject to amendment by action of City Council and the Mayor.

Table 5
Summary of Business Income and Receipts Tax Rates

Tax Year	Gross Receipts	Net Income
2012	1.415 mills	6.45%
2013	1.415 mills	6.45%
2014	1.415 mills	6.43%
2015	1.415 mills	6.41%
2016	1.415 mills	6.39%
2017	1.415 mills	6.35%
2018	1.415 mills	6.30%
2019	1.415 mills	6.25%
2020	1.415 mills	6.20%
2021	1.415 mills	6.20%
2022	1.415 mills	6.20%
2023	1.415 mills	5.99%
2024	1.415 mills	5.99%

The 2011 legislation incorporated several changes intended to help small and medium sized businesses and lower costs associated with starting a new business in order to stimulate new business formation and increase employment in the City, including the following: (i) the Commercial Activity License fee for all businesses was eliminated in 2014; (ii) business taxes for the first two years of operations for all new businesses with at least three employees in their first year and six employees in their second year were eliminated beginning in 2012; and (iii) across the board exclusions on the gross receipts portion of the BIRT were provided for all businesses phased in over a three-year period beginning in 2014 and eventually excluding the first $100,000 of gross receipts, along with proportional reductions in the net income portion of the BIRT. The legislation also provided for implementation of single sales factor apportionment in 2015, which enables businesses to pay BIRT based solely on sales in the City, rather than on property or payroll.

In addition, legislation was enacted, effective for tax year 2019, to (i) eliminate the requirement for new businesses to make an estimated business tax payment when filing a return for their first tax year of business operations and (ii) allow such estimated payments in the second year to be made in quarterly installments.

Real Property Taxes

Assessment and Collection. Taxes are levied on the assessed value of all taxable residential and commercial real property located within the City's boundaries for the City and for the School District (each, a "Real Estate Tax") as assessed by the Office of Property Assessment ("OPA") and collected by the Department of Revenue for both the City and the School District. Real Estate Taxes are authorized by Commonwealth law with the millage split between the City Real Estate Tax and the School District Real Estate Tax changing over the years. Currently, the City Real Estate Tax is equal to 45% of the total authorized millage and the School District Real Estate Tax is equal to 55% of the total authorized millage. Real Estate Taxes are levied on a calendar year basis. By separate ordinances, City Council authorizes and levies the rate of the City Real Estate Tax and authorizes the rate of the School District Real Estate Tax. The Board of Education levies all School District taxes, including the School District Real Estate Tax. Bills are sent in December for the following year and payments are due March 31.

For tax year 2014, all properties in Philadelphia were reassessed at their actual market value by OPA under the Actual Value Initiative ("AVI") in order to replace outdated values and inequities within the system. Under AVI, the total assessed value of all properties more accurately reflected the market in the City and the total assessment grew substantially. As a result, the Mayor and City Council significantly reduced the Real Estate Tax rate to ensure that, in its first year, the reassessment resulted in the collection of approximately the same amount of Real Estate Taxes as the prior year (tax year 2013).

In order to mitigate any hardship that could be created by the substantial increases in assessed value, the ordinance imposing the new Real Estate Tax rates included a Homestead Exemption of $30,000 for all primary residential owner-occupants, which was subsequently increased to $40,000 of assessed value in Fiscal Year 2019. In the adopted budget for Fiscal Year 2020, the Homestead Exemption was increased from $40,000 to $45,000 of assessed value. In the Fiscal Year 2023 Adopted Budget, the Homestead Exemption was increased from $45,000 to $80,000 of assessed value. In addition to the Homestead Exemption, the City has also instituted several other property tax relief programs for taxpayers.

In December 2019, City Council also passed legislation to modify the existing 10-year property tax abatement for new construction of residential properties. Such program has been adjusted to exempt 100% of the improvement value in the first year with graduated 10% annual reductions in the exemption percentage each subsequent year. No changes were made to the existing property tax abatement programs for commercial buildings or substantial rehabilitation of residential structures. Due to the COVID-19 pandemic, this legislation was amended to delay its effective date and will apply to exemption applications beginning January 1, 2022.

In December 2020, City Council also passed legislation to implement a Development Impact Tax, which also became effective on January 1, 2022, where a $1 levy will be collected for each $100 improvement of residential space.

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The Real Estate Tax rates for tax years 2017-2021 are set forth in Table 6 below:

Table 6
Real Estate Tax Rates and Allocations

Tax Year	City	School District	Total
2017	0.6317%	0.7681%	1.3998%
2018	0.6317%	0.7681%	1.3998%
2019	0.6317%	0.7681%	1.3998%
2010	0.6317%	0.7681%	1.3998%
2021	0.6317%	0.7681%	1.3998%

For Fiscal Year 2021, the actual amount of Real Estate Tax revenue for the City was $693.9 million (excluding delinquent collections). For Fiscal Year 2022, the budgeted amount of Real Estate Tax revenue for the City is $696.3 million (excluding delinquent collections). For Fiscal Year 2022, the current estimate of Real Estate Tax revenue for the City is $689.9 million (excluding delinquent collections). For Fiscal Year 2023, the budgeted amount of Real Estate Tax revenue for the City is $785.2 million (excluding delinquent collections). See Table 3 above. For information on the process for appealing a property tax assessment, see the text before and after Table 7 below.

Table 7 shows certified property values for tax years 2022 and 2023.

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Table 7
Certified Property Values for Tax Years 2022 and 2023

Tax Year 2022

Category	Market Value[1]	Taxable Assessed Value	Exempt Assessed Value	Homestead	# of Properties
Single Family Residential	$80,355,038,591	$63,566,942,535	$7,305,795,823	$9,482,300,233	461,956
Multi-Family Residential (Apartments)[2]	27,909,714,448	19,414,879,091	8,176,867,345	317,968,012	42,451
Non-Residential[3]	57,837,117,231	30,205,808,358	27,586,486,873	44,822,000	32,908
Vacant Land	4,942,431,920	2,137,721,190	2,798,497,830	6,212,900	44,233
Total	**$171,044,302,190**	**$115,325,351,174**	**$45,867,647,871**	**$9,851,303,145**	**581,548**

[1] Assessment data current as of March 31, 2021.
[2] Apartments were split from the previous hotels and apartments category and are now reflected as multi-family residential.
[3] Includes commercial, industrial, store with dwelling, hotels, and motels.

Tax Year 2023

Category	Market Value[1]	Taxable Assessed Value	Exempt Assessed Value	Homestead	
Single Family Residential	$101,870,962,436	$83,597,169,328	$8,624,639,687	$9,649,153,421	463,240
Multi-Family Residential (Apartments)[2]	36,406,123,912	26,088,044,114	9,963,156,267	354,923,531	42,869
Non-Residential[3]	59,079,612,534	31,799,128,204	27,230,134,717	50,349,613	32,520
Vacant Land	6,326,352,610	3,229,608,752	3,094,662,958	2,080,900	42,726
Total	**$203,683,051,492**	**$144,713,950,398**	**$48,912,593,629**	**$10,056,507,465**	**581,355**

[1] Assessment data current as of May 25, 2022.
[2] Apartments were split from the previous hotels and apartments category and are now reflected as multi-family residential.
[3] Includes commercial, industrial, store with dwelling, hotels, and motels.

Assessment and Appeals. OPA is responsible for property assessments, while the Board of Revision of Taxes ("BRT"), an independent, seven-member board appointed by the Board of Judges of the Philadelphia Common Pleas Court, is the property assessment appeals board.

OPA certifies the market values during the prior year (i.e., for tax year 2022, OPA certified the market values on March 31, 2021). Taxpayers base their appeals on the certified market values, and therefore, the assessed values are adjusted as the appeals are finalized. In some circumstances and for certain tax years, taxpayers are permitted, during the appeals process, to pay their property tax bills based on the certified market value of their properties from the prior assessment. For budgetary purposes, OPA provides updated assessment data to the Office of the Director of Finance by February of each year, from which Real Estate Tax projections are made. Certified values can vary substantially from the amounts included in such data and, as such, Real Estate Tax collections can also vary from the amounts included in the City's proposed annual operating budget.

Under AVI, OPA set up a new process called a first level review ("FLR"), where a taxpayer could request an administrative review of its assessment notice prior to launching a formal appeal with the BRT. The BRT has the authority, following a formal appeal, to either increase, decrease, or leave unchanged the property assessment. Some appeals are not resolved before bills are sent to taxpayers. As such, some property assessments are modified after taxpayers receive bills.

For tax year 2018 (as certified on March 31, 2017), OPA changed the assessed values of over 45,000 parcels (which included properties of all categories, including commercial and residential parcels) throughout the City as part of its reassessment. In September 2017, the owners of multiple commercial properties in the City filed a lawsuit against the City in the Court of Common Pleas. The plaintiffs in such matter alleged, based on a July 2017 Pennsylvania Supreme Court decision, that OPA violated the uniformity clause of the Pennsylvania Constitution in reassessing commercial properties and not residential properties for tax year 2018. The plaintiffs sought declaratory relief, a permanent injunction, and an order directing OPA to recertify their properties at tax year 2017 values. Subsequently, twelve additional cases were filed, asserting virtually the same claims. All of the cases, which encompass approximately 600 plaintiffs and approximately 700 properties, were consolidated for management purposes. In a ruling handed down on July 18, 2019, the Common Pleas Court found that plaintiffs were owed refunds for overpayments equal to the difference between the plaintiffs' Real Estate Taxes for tax year 2017 and tax year 2018. The total amount of these refunds against the City and the School District may be up to approximately $60 million. The City and School District appealed the ruling on October 22, 2019 and oral arguments on such appeal were heard in the Commonwealth Court in June 2021. On July 29, 2021, the Commonwealth Court issued a decision that upheld the ruling of the Common Pleas Court. The City and School District applied to the Commonwealth Court for reargument, which application was denied on September 28, 2021. The City and School District petitioned the Pennsylvania Supreme Court for allowance of appeal, which was denied on June 8, 2022. No further appeals are available. City-wide reassessments were conducted for tax years 2019 and 2020 and the City does not expect the Real Estate Taxes for such tax years to be impacted by the final judgment on this matter. For more general information on judgments and settlements on claims against the City, see "LITIGATION."

For tax year 2021 (as certified on March 31, 2020), OPA had planned to conduct a second year of trending for assessments, but initial results showed certain anomalies that would result in assessed values that were not acceptable to the City's standards. As such, the City carried forward the assessed values from tax year 2020, with the exception of properties that had new construction, expiring abatements, renovations, subdivisions, consolidations, or errors in prior year assessments. As of June 3, 2022, OPA has received 678 FLRs, with less than 5% that have yet to be decided. As of June 3, 2022, BRT has received 2,621 appeals, with approximately 143 that have yet to be decided.

For tax year 2022 (as certified on March 31, 2021), the City did not conduct a citywide reassessment due to operational delays regarding COVID-19. As such, the City carried forward the assessed values from tax year 2021, with the exception of properties that had new construction, expiring abatements, renovations, subdivisions, consolidations, or errors in prior year assessments. As described below in "Review of Assessment Methodology," OPA will continue implementing procedures to ensure greater accuracy in future assessments. As of June 3, 2022, OPA has received 66 FLRs. As of June 3, 2022, BRT has received 1,157 appeals, with approximately 334 that have yet to be decided.

For tax year 2023 (as certified on April 30, 2022), OPA revised the assessed values of over 550,000 parcels throughout the City as part of its first citywide reassessment since tax year 2020. The International Association of Assessing Officers ("IAAO") conducted a ratio study on the 2023 assessments for single-family homes and determined that OPA met industry standards for both uniformity and equity.

Review of Assessment Methodology. OPA continues to review its assessment methodology in order to improve the transparency and accuracy of its assessment activities and the quality of assessments. Such efforts include (i) implementing the new computer-assisted mass appraisal system program, (ii) contracting with an outside vendor to improve the quality of OPA's data, (iii) strengthening OPA's modeling team, and (iv) providing more training to the sales validation team, which was created in 2019, to help ensure improved data. In Fiscal Year 2022, OPA contracted with IAAO to review current processes and procedures and make recommendations on additional improvements.

Real Estate Tax Collection Initiatives. Since 2010, the City has pursued a number of initiatives to improve the collection of Real Estate Taxes, including (i) improved written communication with taxpayers in plain language, including prompt correspondence with taxpayers with overdue Real Estate Taxes, (ii) using outside collection firms to collect overdue Real Estate Taxes, (iii) sequestration of delinquent properties occupied by commercial tenants, and (iv) tax lien sales.

Real Estate Tax Tables. See Table 8 below for data with respect to Real Estate Taxes levied from 2017 to 2021 and collected by the City from January 1, 2017 to June 30, 2021. See Table 9 for the assessed property values of the City's principal taxable assessed parcels in 2023. See Table 10 for the 2023 market and assessed values of the ten highest valued taxable real properties in the City, as well as the amounts and duration of Real Estate Tax abatements with respect to such properties.

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Table 8
City of Philadelphia
Real Property Taxes Levied and Collected
For the Calendar Years 2017-2021
(Amounts in Millions of USD)[(1), (2)]

Calendar Year	Taxes Levied Based on Original Assessment[(3)]	Taxes Levied Based on Adjusted Assessment[(4)]	Collections in the Calendar Year of Levy[(6)]	Percentage Collected in the Calendar Year of Levy	Collections in Subsequent Years[(5), (6)]	Total Collections to Date: All Years[(6)]	Percentage Collected to Date: All Years[(6)]
2017	$580.5	$564.7	$542.9	96.1%	$21.1	$564.0	99.9%
2018	$658.1	$627.5	$604.4	96.3%	$16.0	$620.4	98.9%
2019	$709.4	$682.8	$660.4	96.7%	$12.0	$672.4	98.5%
2020	$722.7	$703.4	$672.3	95.6%	$11.4	$683.7	97.2%
2021	$729.7	$720.5	$670.2	95.8%	N/A	$670.2	N/A

(1) Source: Fiscal Year 2021 ACFR.
(2) Real Estate Taxes are levied by the City and the School District. While this table reflects City General Fund Real Estate Tax revenues exclusively, the School District Real Estate Tax collection rates are the same.
(3) Taxes are levied on a calendar year basis. They are due on March 31.
(4) Adjustments include assessment appeals, a 1% discount for payment in full by February 28, the senior citizen tax discount, and the tax increment financing return of tax paid. For more information on the reassessment appeal process, see "– Real Property Taxes – Assessment and Appeals."
(5) Includes payments from capitalization charges. This capitalization occurs one time, after the end of the first year of the levy, on any unpaid balances.
(6) For calendar year 2021, the data shown reflects collections through June 30, 2021. For earlier calendar years, the data shown reflects collections through December 31 of the respective year.

Table 9
Principal Taxable Assessed Parcels – 2023
(Amounts in Millions of USD)[(1)]

Taxpayer	2023 Assessment[(2)]	2023 Percentage of Total Assessments
EQC Nine Penn Center Prop	$422.2	0.27%
Kim Sub Cira Square LP	370.6	0.24
Liberty Property Phila[(3)]	368.1	0.24
NG 1500 Market St LLC	362.6	0.23
Phila Liberty Place LP	335.3	0.22
Brandywine Cira Walnut 1	298.1	0.19
PRU 1901 Market LLC	278.0	0.18
Brandywine Cira LP	272.1	0.18
Commerce Square Partners	268.3	0.17
Phila Plaza Phaze II	259.0	0.17
Total	**$3,234.3**	**2.08%**
Total Taxable Assessments[(4)]	**$154,770.5**	

Source: City of Philadelphia, Office of Property Assessment.

(1) Figures may not sum due to rounding.
(2) Assessment Values rounded to the nearest $100,000 and only include the largest assessed property for each taxpayer, additional properties owned by the same taxpayer are not included.
(3) Acquired by Prologis, Inc. in the first quarter of calendar year 2020.
(4) Total 2023 Taxable Assessment as of May 25, 2022.

Table 10
Ten Largest Certified Market and Assessment Values of Tax-Abated Properties
Certified Values for 2023
(Amounts in Millions of USD)[(1), (2)]

Location	2023 Certified Market Value	Total Assessment	Total Taxable Assessment	Total Exempt Assessment	Exempt Through Tax Year
900 Packer Ave	$476.9	$476.9	$96.6	$380.3	2030
1001-99 N Delaware Ave	$335.9	$335.9	$186.2	$149.6	2026
1800 Arch St	$334.5	$334.5	$33.4	$301.0	2027
2201 Park Towne Pl	$276.9	$276.9	$159.5	$117.4	2028
401 N Broad St	$270.3	$270.3	$244.4	$26.0	2025
170 S Independence W Mall	$186.5	$186.5	$165.6	$20.9	2028
1801 John F Kennedy	$185.0	$185.0	$123.7	$61.3	2024
200 N 16TH St	$157.6	$157.6	$52.8	$104.7	2029
1601 Vine St	$154.1	$154.1	$13.8	140.3	2028
2402-14 Market St	$151.8	$151.8	$46.1	$105.6	2028

Source: City of Philadelphia, Office of Property Assessment.

(1) Figures may not sum due to rounding.
(2) Certified Values as of 05/25/2022.

Sales and Use Tax

Pursuant to the authorization granted by the Commonwealth under the PICA Act, the City adopted a 1% sales and use tax (the "City Sales Tax") for City general revenue purposes effective beginning in Fiscal Year 1992. It is imposed in addition to, and on the same basis as, the Commonwealth's sales and use tax. Vendors are required to pay City Sales Taxes to the Commonwealth Department of Revenue together with the Commonwealth sales and use tax. The State Treasurer deposits the collections of City Sales Taxes in a special fund and disburses the collections, including any investment income earned thereon, less administrative fees of the Commonwealth Department of Revenue, to the City on a monthly basis.

The City's budgets for Fiscal Years 2010-2014 provided for an increase in the City Sales Tax rate to 2%, as authorized by the Commonwealth effective October 8, 2009, through June 30, 2014. In July 2013, the Commonwealth authorized the implementation of a new, permanent 1% increase in the City Sales Tax rate effective July 1, 2014, which was adopted by the City on June 12, 2014 and became effective on July 1, 2014. Under the reauthorized City Sales Tax, the first $120 million collected from such additional 1% is distributed to the School District. For Fiscal Years 2015-2018, the General Assembly authorized the City to use the next $15 million of City Sales Tax revenues from such additional 1% collected in such Fiscal Years for the payment of debt service on obligations issued by the City for the benefit of the School District. Following such debt service payments, that remaining portion of the City Sales Tax revenues from such additional 1% distributed to the City is required to be used exclusively in accordance with Act 205 (as defined herein) and deposited to the Municipal Pension Fund.

The following table sets forth the City Sales Taxes collected in Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, and the budgeted amount for Fiscal Year 2023.

Table 11
Summary of City Sales Tax Collections
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[(1)]

Fiscal Year	City Sales Tax Collections
2019 (Actual)	$224.2[(3)]
2020 (Actual)	$204.6[(3)]
2021 (Actual)	$230.4[(3)]
2022 (Adopted Budget)	$216.4[(3)]
2022 (Current Estimate)	$268.4[(3)]
2023 (Adopted Budget)	$277.6[(3)]

(1) Sources: For Fiscal Years 2018-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.
(2) Net collections estimated to be distributed to the City (i) from the first 1% City Sales Tax, (ii) following the distribution of $120 million of revenues from the second 1% City Sales Tax to the School District, and (iii) following the payment of debt service on obligations issued by the City for the benefit of the School District, as described above.
(3) Net collections estimated to be distributed to the City from the first 1% City Sales Tax and following the distribution of $120 million of revenues from the second 1% City Sales Tax to the School District, as described above.

Real Property Transfer Tax

Real Property Transfer Taxes are collected in connection with the sale of real property in the City. The Real Property Transfer Tax rate in the City is 4.278%, 3.278% of which is imposed by the City and 1% of which is charged by the Commonwealth. In the Fiscal Year 2021 ACFR, the City reported that it collected approximately $304.0 million in revenues from the Real Property Transfer Tax in Fiscal Year 2021.

In the Thirty-First Five-Year Plan, the City currently estimates for Fiscal Years 2022-2027 that it will collect approximately (i) $537.7 million (Fiscal Year 2022), (ii) $418.3 million (Fiscal Year 2023), (iii) $418.6 million (Fiscal Year 2024), (iv) $421.8 million (Fiscal Year 2025), (v) $427.1 million (Fiscal Year 2026), and (vi) $434.1 million (Fiscal Year 2027) in revenues from the Real Property Transfer Tax in such Fiscal Years.

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Other Taxes

The City also collects parking taxes, an amusement tax, a valet parking tax, an outdoor advertising tax, a smokeless tobacco tax, the Philadelphia Beverage Tax (see below), and other miscellaneous taxes.

In June 2016, City Council passed the Philadelphia Beverage Tax (Chapter 19-4100 of the Philadelphia Code) (the "Philadelphia Beverage Tax"). On October 31, 2016, the Department of Revenue adopted regulations for the Philadelphia Beverage Tax. The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017.

The Philadelphia Beverage Tax is deposited into the General Fund, and with the additional revenue, the City has budgeted for pre-Kindergarten, community schools, and debt service for improvements to parks, playgrounds, recreation centers, and libraries, as contemplated by the City's Rebuild program. In the Fiscal Year 2021 ACFR, the City reported that it collected approximately $70.2 million in revenues from the Philadelphia Beverage Tax for Fiscal Year 2021.

In the Thirty-First Five-Year Plan, the City currently estimates that for Fiscal Years 2022-2027 that it will collect approximately (i) $76.9 million (Fiscal Year 2022), (ii) $77.9 million (Fiscal Year 2023), (iii) $78.8 million (Fiscal Year 2024), (iv) $78.0 million (Fiscal Year 2025), (v) $77.6 million (Fiscal Year 2026), and (vi) $77.3 million (Fiscal Year 2027) in revenues from the Philadelphia Beverage Tax in such Fiscal Years.

Collection Initiatives

The City is pursuing a multifaceted strategy designed to improve collections of various taxes while decreasing delinquencies. Key compliance strategies continue to include revocation of commercial licenses and sequestration, among others.

In addition to compliance efforts, the City has completed two projects – one to implement technology solutions for its cashiering and payments processing systems and another to develop an integrated data warehouse and case management system. These projects are in addition to the City's launch of first phase of its new tax system of record, and its public facing counterpart, the Philadelphia Tax Center in November 2021. The second phase will launch in October 2022. These initiatives improve operational efficiencies, customer service and compliance, and drive enforcement efforts by providing tools previously unavailable to the City.

As a result of economic disruptions from the COVID-19 pandemic, the City's regular collection strategies were modified. Throughout the pandemic, the Department of Revenue continued to send bills and notifications and pursue outreach efforts to both businesses and vulnerable residents. Some legal action, enforcement projects, and placements with collection agencies are resuming as economic conditions improve, including the revocation of business licenses. The City continues to evaluate and pursue long-time delinquent accounts and place liens on properties for property-based taxes and fees. Along with existing flexible payment agreements for property tax and water fees, the City also launched new payment agreements for all business taxes in an effort to bring businesses affected by COVID-19 closures into compliance. Additionally, the Department of Revenue launched an "Offers in Compromise" program, which allows certain taxpayers to submit a request to settle their tax obligations for a payment of less than the full amount owed. Such requests are determined based on the taxpayer's current and projected financial circumstances. The program is designed to bring long-time delinquent accounts into compliance. For information on other collection initiatives related to Real Estate Taxes, see "– Real Property Taxes – Real Estate Tax Collection Initiatives."

Other Locally Generated Non-Tax Revenues

These revenues include license fees and permit sales, traffic fines and parking meter receipts, court related fees, certain stadium revenues, interest earnings and other miscellaneous charges and revenues of the City.

Revenue from Other Governments

The following table presents revenues received from other governmental jurisdictions for Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, the budgeted amount for Fiscal Year 2023, and the percentage such revenues represent in the General Fund. The table does not reflect substantial amounts of revenues from other governments received by the Grants Revenue Fund, Community Development Fund, and other operating and capital funds of the City.

Table 12
Revenue from Other Governmental Jurisdictions
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Dollar Amounts in Millions of USD)(1), (2), (3)

Fiscal Year	Commonwealth(4)	Federal Government	Other Governments(5)	Total	Percentage of General Fund Revenues
2019 (Actual)	$214.8	$21.9	$74.4	$311.1	6.5%
2020 (Actual)	$215.1	$85.5(6)	$62.0	$362.6	7.5%
2021 (Actual)	$229.8	$62.4(6)	$35.4	$327.6	7.0%
2022 (Adopted Budget)	$229.4	$44.8	$64.1	$338.3	6.4%
2022 (Current Estimate)	$230.2	$68.4(6)	$64.1	$362.8	6.6%
2023 (Adopted Budget)	$231.5	$55.9(6)	$65.1	$352.5	6.2%

(1) Sources: For Fiscal Years 2018-2020, the City's ACFRs for such Fiscal Years. For Fiscal Year 2021, the Thirty-First Five-Year Plan. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget and the Thirty-First Five-Year Plan.
(2) Figures may not sum due to rounding.
(3) Does not include the PICA Tax.
(4) Such revenues are for health, welfare, court, and various other specified purposes.
(5) Such revenues primarily consist of payments from PGW, parking fines and fees from PPA, and other authorized adjustments.
(6) Includes federal relief funding from the CARES Act.

Revenues from City-Owned Systems

In addition to taxes, the City realizes revenues through the operation of various City-owned systems, such as the Water and Wastewater Systems and PGW. The City has issued revenue bonds with respect to the Water and Wastewater Systems and PGW to be paid solely from and secured by a pledge of the respective revenues of these systems. The revenues of the Water and Wastewater Systems and PGW are not legally available for payment of other obligations of the City until, on an annual basis, all revenue bond debt service requirements and covenants relating to those bonds have been satisfied, and then only in a limited amount and upon satisfaction of certain other conditions.

Water Fund. The revenues of the Water Department are required to be segregated from other funds of the City. Under the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 (the "Water Ordinance"), an annual transfer may be made from the Water Fund to the City's General Fund in an amount not to exceed the lesser of (i) all Net Reserve Earnings and (ii) $4,994,000. "Net Reserve Earnings" means the amount of interest earnings during the Fiscal Year on amounts in the Debt Reserve Account and Subordinated Bond Fund, each as defined in the Water Ordinance.

The following table shows the amounts transferred from the Water Fund to the General Fund for Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, and the budgeted amount for Fiscal Year 2023.

Table 13
Transfers from Water Fund to General Fund (Excess Interest on Sinking Fund Reserve)
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)(1), (2)

Fiscal Year	Amount Transferred
2019 (Actual)	$4,094,824
2020 (Actual)	$4,994,000
2021 (Actual)	$2,586,000
2022 (Adopted Budget and Current Estimate)	$1,500,000
2023 (Adopted Budget)	$1,500,000

(1) Sources: For Fiscal Years 2019-2020, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Year 2021, the Thirty-First Five-Year Plan. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.
(2) The Water Department's budgeted amount for such transfers is typically greater than the figure included in the City's operating budget.

The City also budgets for certain transfers from the Water Fund to the General Fund related to services performed and costs borne by the General Fund. For Fiscal Year 2021, the amount of such transfers was approximately $7.8 million. For Fiscal Year 2022, the budgeted amount of such transfers is approximately $7.4 million, while the current estimate is $7.2 million. For Fiscal Year 2023, the budgeted amount of such transfers is approximately $7.6 million.

PGW. The revenues of PGW are required to be segregated from other funds of the City. Payments for debt service on PGW bonds are made directly by PGW. PGW is required to make an annual payment of $18 million to the General Fund. The Fiscal Year 2022 Adopted Budget includes such $18 million annual payment to the General Fund from PGW for such Fiscal Year. The Fiscal Year 2023 Adopted Budget includes such $18 million annual payment to the General Fund from PGW for such Fiscal Year. For more information on PGW, see "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Government Services."

Philadelphia Parking Authority Revenues

The PPA was established by City ordinance pursuant to the Pennsylvania Parking Authority Law (P.L. 458, No. 208 (June 5, 1947)). Various statutes, ordinances, and contracts authorize the PPA to plan, design, acquire, hold, construct, improve, maintain and operate, own or lease land and facilities for parking in the City, including such facilities at PHL, and to administer the City's on-street parking program.

The PPA owned and operated five parking garages and a number of surface parking lots at PHL (collectively, the "Improvements"). The land on which these garages and surface lots are located was previously leased from the City, acting through the Division of Aviation, pursuant to a lease originally expiring in 2030 (the "Lease Agreement"). On August 14, 2020, pursuant to the Lease Agreement and that certain Parking Services Contract, the City exercised its option to purchase the Improvements. As of the date of this Official Statement, the City has terminated the Lease Agreement and provided the requisite funds to redeem the debt issued and outstanding under the PPA's bond indenture related to the

Improvements. The PPA now manages the PHL parking facilities under a management agreement with the City.

The PPA's administrative costs are a component of its operating expenses. In 1999, at the request of the FAA, the PPA and the City entered into a letter agreement (the "FAA Letter Agreement"), which contained a formula for calculating the PPA's administrative costs and capped such costs at 28% of the PPA's total administrative costs for all of its cost centers. The PPA owns and/or operates parking facilities at a number of locations in the City in addition to those at PHL. The PPA parking facilities at PHL are cost centers for purposes of the FAA Letter Agreement.

On-street parking revenues are administered and collected, on behalf of the City, by the PPA. Pursuant to Pennsylvania law, the PPA transmits these revenues to the City, net of any actual expenses incurred in the administration of the on-street parking system in accordance with the PPA's approved budget. If such net revenues exceed a designated threshold, then any excess above that threshold is to be transmitted to the School District. The current threshold is $35 million and includes a mandatory escalator to take into account increases in revenues.

The following table presents payments received by the City from PPA for on-street parking for Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, and the budgeted amount for Fiscal Year 2023.

Table 14
PPA On-Street Parking Payments to the City
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)[(1), (2)]
(Amounts in Millions of USD)

Fiscal Year	Payments to the City
2019 (Actual)	$39.1
2020 (Actual)	$32.6
2021 (Actual)	$25.5
2022 (Adopted Budget and Current Estimate)	$43.8
2023 (Adopted Budget)	$44.7

(1) Sources: For Fiscal Years 2019-2020, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Year 2021, the Thirty-First Five-Year Plan. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.
(2) Table 14 shows City revenues; none of such payments is transferred to the School District.

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Other Tax Rate Changes

The Fiscal Year 2023 Adopted Budget lowers both the resident and non-resident wage and earnings tax rates to 3.79% and 3.44%, respectively. Such rates are maintained for the life of the Thirty-First Five-Year Plan, as shown in the following table.

Table 15
Wage and Earnings Tax Rates[1]

	Thirty-First Five-Year Plan	
Fiscal Year	Resident Wage and Earnings Tax Rates[2]	Non-Resident Wage and Earnings Tax Rates
2022	3.8398%	3.4481%
2023	3.79%	3.44%
2024	3.79%	3.44%
2025	3.79%	3.44%
2026	3.79%	3.44%
2027	3.79%	3.44%

(1) Source: The Thirty-First Five-Year Plan.
(2) Includes PICA Tax. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.

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EXPENDITURES OF THE CITY

Three of the principal City expenditures are for personal services (personnel) (including pensions and other employee benefits), purchase of services (including payments to SEPTA), and debt service. The expenditures for personal services (personnel) and purchase of services are addressed below under this caption; debt service is addressed below under "DEBT OF THE CITY."

Personal Services (Personnel)

As of June 30, 2021, the City employed 27,209 full-time employees, representing approximately 4.3% of employees in Philadelphia (approximately 633,735 employees, according to preliminary, non-seasonally adjusted data from the Bureau of Labor Statistics). Of the 27,209 full-time employees, the salaries of 21,630 were paid from the General Fund. Additional sources of funding for full-time City employees include the Grants Revenue Fund, the Water Fund, and the Aviation Fund, as well as grants and contributions from other governments. Activities funded through such grants and contributions are not undertaken if funding is not received. The following table sets forth the number of filled, full-time positions of the City as of the dates indicated.

Table 16
Filled, Full-Time Positions[(1), (2)]

	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020	June 30, 2021
General Fund					
Police	6,986	7,172	7,241	7,175	6,869
Fire	2,281	2,511	2,530	2,628	2,678
Courts	1,856	1,867	1,842	1,825	1,773
Prisons	2,277	2,177	2,130	1,975	1,620
Streets	1,702	1,738	1,736	1,925	1,941
Public Health	687	711	752	739	716
Human Services[(3)]	385	517	396	437	492
All Other	5,436	5,533	5,583	5,718	5,541
Total – General Fund	21,610	22,226	22,210	22,422	21,630
Other Funds	5,849	5,641	5,873	5,917	5,579
Total – All Funds	27,459	27,867	28,083	28,339	27,209

(1) Source: Table P-1 in the City's Quarterly City Manager's Reports.
(2) Table 16 does not include seasonal or temporary employees.
(3) Positions have been transferred to the Grants Revenue Fund. Non-reimbursed expenditures will be transferred to the General Fund during the fiscal year.

Overview of City Employees

The wages and benefits of City employees vary not only by position, but also by whether the employees are represented by a union and, if so, which union. Employee wages and benefits may also be impacted by whether the employee is subject to the civil service system or exempt from those rules. Thus, City employees may be broken down into three major categories for purposes of understanding how their wages and benefits are determined: (i) employees who are not subject to the civil service system ("exempt employees"); (ii) employees who fall under the civil service system but are not represented by a union ("non-represented employees"); and (iii) employees who are subject to the civil service system and are represented by a union ("union employees").

As of February 23, 2022, the City had approximately 22,500 unionized employees, representing approximately 85% of the City's employees. Such employees were represented by the City's four municipal unions: (i) Fraternal Order of Police ("FOP") Lodge No. 5; (ii) International Association of Fire Fighters ("IAFF") Local 22; (iii) American Federation of State, County and Municipal Employees District Council 33 ("AFSCME DC 33"); and (iv) American Federation of State, County and Municipal Employees District Council 47 ("AFSCME DC 47"). Table 18 below describes certain aspects of the collective bargaining agreements or interest arbitration awards with the City's municipal unions.

In Fiscal Year 2022, the City received arbitration awards with the FOP and IAFF and reached collective bargaining agreements with AFSCME DC 33 and AFSCME DC 47 covering the period July 1, 2022 through June 30, 2024. In Fiscal Year 2023, the City received an arbitration award with AFSCME DC 33, Local 159 Correctional Officers. Labor negotiations with one new bargaining unit, the United Steelworkers Local 286, remain ongoing.

A brief description of certain terms of the current labor agreements is included below.

On September 3, 2021, a collective bargaining agreement, covering Fiscal Years 2022-2024, was reached with AFSCME DC 33 and provides for, among other things, (i) wages increases of 2.5%, 3.25%, and 3.25% in Fiscal Years 2022, 2023, and 2024, respectively, (ii) a one-time lump sum bonus for members ($1,200 per member), and (iii) an increase to the City's monthly payments to the union health and welfare fund (item (iii) also applies AFSCME DC 33 Local 159, which shares a common health fund with AFSCME DC 33, as described below). The collective bargaining agreement was ratified by AFSCME DC 33 members on September 24, 2021. Such agreement is expected to result in a projected aggregate cost to the City of approximately $138.0 million over the course of Fiscal Years 2022-2024.

AFSCME DC 33 and AFSCME DC 33 Local 159 share a common health fund. Under prior collective bargaining agreements, the cost of bonuses for such unions have been partially offset by reduced monthly City contributions to the health fund. Such reduced monthly contributions have been paused and the City is currently making full contributions to the health fund. It is not known at this time when the reduced monthly contributions may resume.

On September 14, 2021, the interest arbitration award was issued for the FOP Lodge No. 5 (Police Department), covering Fiscal Years 2022-2024, and provides for, among other things, (i) wages increases of 2.75%, 3.50%, and 3.50% in Fiscal Years 2022, 2023, and 2024, respectively, (ii) a one-time lump sum bonus for members ($1,500 per member), (iii) disciplinary reforms, (iv) grievance and arbitration reforms, and (v) a City health fund payment holiday for two months (one in each of calendar year 2021 and 2023, respectively) to reduce City costs. Such arbitration award is expected to result in a projected aggregate cost to the City of approximately $133.0 million over the course of Fiscal Years 2022-2024.

Under the award, the City also received changes to police officer termination arbitrations. Other disciplinary procedure changes were made, such as requiring officers on "injured on duty" leave to report for Internal Affairs interviews and the inclusion of civilians on Police Board of Inquiry panels. The City also received certain concessions on the civilianization of positions. Procedures are now included to review work that has been performed by police officers to determine if such work can be performed by civilian employees.

On September 17, 2021, a collective bargaining agreement, covering Fiscal Years 2022-2024, was reached with AFSCME DC 47 and provides for, among other things, (i) wages increases of 2.5%, 3.25%, and 3.25% in Fiscal Years 2022, 2023, and 2024, respectively, (ii) a one-time lump sum bonus for members ($1,200 per member), and (iii) lump sum payments to union health fund of $1.5 million, $1.8 million, and $1.5 million in Fiscal Year 2022, 2023, and 2024, respectively. The collective bargaining agreement was ratified by AFSCME DC 47 members on October 14, 2021. Such agreement is expected to result in a projected aggregate cost to the City of approximately $47.7 million over the course of Fiscal Years 2022-2024.

In December 2021, pursuant to the Act 111 interest arbitration award, the IAFF received a three-year contract through June 2024. IAFF employees received a wage increase of 2.75% in July 2021 and increases of 3.5% wage increases in July 2022 and July 2023. Similar to the FOP Lodge No. 5 (Police Department) award, the City received certain concessions on the civilianization of positions. Procedures are now included to review work that has been performed by firefighters to determine if such work can be performed by civilian employees.

In March 2022, pursuant to the Act 195 arbitration award, the FOP Lodge No. 5 (Sheriff's Office and Register of Wills ("ROW")) received an award covering Fiscal Years 2022-2024, which provides for, among other things, (i) wages increases for Sheriffs of 2.75%, 3.25%, and 3.25% in Fiscal Years 2022, 2023, and 2024, respectively, and for ROW of 2.5%, 3.25%, and 3.25% in Fiscal Years 2022, 2023, and 2024, respectively, and (ii) a one-time lump sum bonus for members ($1,300 for Sheriffs and $1,200 for ROW).

In August 2022, pursuant to the Act 195 arbitration award, the AFSCME DC 33, Local 159 Correctional Officers received an award covering Fiscal Years 2022-2024, which provides for, among other things, (i) wages increases for Correctional Officers of 2.75%, 3.25%, and 3.25% in Fiscal Years 2022, 2023, and 2024, respectively, and (ii) providing for retention ($1,300), hiring ($2,000) and attendance bonuses ($500) to incentivize hiring and retention to support operations.

Pension reforms that were agreed to in the 2017 labor agreements were maintained in the labor agreements described above.

Other than the arbitration award for the AFSCME DC 33, Local 159 Correctional Officers, the costs of the labor agreements discussed above have been included in the City's five-year plans, as applicable. With respect to the arbitration award for the AFSCME DC 33, Local 159 Correctional Officers, the City expects the Labor Reserve to be sufficient to cover the costs of such award and will reallocate funds from such reserve to the appropriate budget line items as necessary. See "DISCUSSION OF FINANCIAL OPERATIONS – Current Financial Information" herein).

For more information on the current status of the interest arbitration awards that have been issued for, and contract settlements reached with, the City's major labor organizations, as well as changes that have been made for non-represented employees, see Table 18.

Collective bargaining with respect to the wages, hours and other terms and conditions of employment of union employees, other than uniformed employees of the Police Department and the Fire Department, is governed by the Public Employee Relations Act (Pa. P.L. 563, No. 195 (1970)) ("PERA"). PERA requires the City and the unions to negotiate in good faith to attempt to reach agreement on new contract terms and, if an impasse exists after such negotiations, to mediate through the Commonwealth Bureau of Mediation. Once the mediation procedures have been satisfied, and if no collective bargaining agreement has been reached, most employees covered by PERA are permitted to strike. Certain employees, however, including employees of the Sheriff's Office and the Register of Wills represented by the FOP, corrections officers represented by AFSCME DC 33, and employees of the First Judicial District represented by AFSCME DC 47, are not permitted to strike under PERA. These employees must submit any impasse to binding interest arbitration once the mediation procedures have been satisfied. PERA permits parties at an impasse, which are not required to submit to binding interest arbitration, to do so voluntarily. Provisions of an interest arbitration award issued under PERA that require legislative action are considered advisory only and the legislative body is permitted to meet, consider, and reject those provisions.

Uniformed employees of the Police Department and the Fire Department bargain under the Policemen and Firemen Collective Bargaining Act (Pa. P.L. 237, No. 111 (1968)) ("Act 111"), which provides for final and binding interest arbitration to resolve collective bargaining impasses and prohibits these employees from striking. Interest arbitration under Act 111 operates similarly to interest arbitration under PERA, but City Council is not permitted to reject the portions of an interest arbitration award that require legislative action. To the contrary, City Council is required to pass any legislation necessary to implement the award unless doing so would violate state or federal law. Thus, the arbitration panel has significant, although not limitless, power to issue an award on mandatory subjects of bargaining. As with interest arbitration under PERA, the arbitration panel cannot issue an award on a matter that is one of inherent managerial policy. In addition to the grounds available to challenge a PERA interest arbitration award on appeal, the PICA Act requires an Act 111 interest arbitration panel to, among other things, give substantial weight to the City's five-year plan and ability to pay for the cost of the award without negatively impacting services, and gives the City the right to appeal the award to the Court of Common Pleas if it believes the panel has failed to meet these responsibilities. If the arbitration panel fails to do so or, among other things, if it awards wages or benefits that exceed what is assumed in the most-recent five-year plan without substantial evidence in the record demonstrating that the City can afford these increases without adversely impacting service levels, the Court of Common Pleas is required to vacate the arbitration award and remand it to the arbitration panel.

Overview of Employee Benefits

The City provides various pension, life insurance, and health benefits for its employees. The benefits offered depend on the employee's union status and bargaining unit, if applicable. General Fund employee benefit expenditures for Fiscal Years 2019 through 2023 are shown in the following table.

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Table 17
General Fund Employee Benefit Expenditures
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[1]

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022	Current Estimate 2022	Adopted Budget 2023
Pension Costs[2]	$752.5[5]	$759.5[6]	$664.4[7]	$774.6[8]	$802.8[9]	$842.5[10]
Health						
Payments under City-administered plan	77.7	78.6	81.2	98.6	98.6	116.2
Payments under union-administered plans	379.3	365.1	358.8	378.2	411.9	443.3
Total Health	457.0	443.7	440.0	476.8	510.5	559.5
Federal Insurance Contributions Act (FICA) Taxes[3]	81.8	80.1	81.5	87.8	89.4	94.1
Other[4]	79.8	80.1	84.4	99.5	102.1	107.4
Total	$1,371.1	$1,363.4	$1,270.3	$1,438.6	$1,504.8	$1,603.5

(1) Sources: The City's five-year financial plans and the City's Quarterly City Manager's Reports. "Payments under City-administered plan" and "Payments under union-administered plans" were provided by the City, Department of Human Resources and the Office of Budget and Program Evaluation. Figures may not sum due to rounding.
(2) Includes debt service on Pension Bonds (as defined herein) and the Commonwealth contributions to the Municipal Pension Fund. See Tables 29 and 30.
(3) Includes payments of social security and Medicare taxes.
(4) Includes payments for unemployment compensation, employee disability, group life, group legal, tool allowance, and flex cash payments.
(5) Includes $52.1 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(6) Includes $42.7 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(7) Includes $55.2 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(8) Assumes $48.2 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(9) Assumes $74.2 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(10) Assumes $78.8 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."

Each of the City's four municipal unions sponsors its own health plan that provides medical, prescription, dental and optical benefits to participating employees and eligible retirees through trusts on which the City has varying degrees of minority representation. Exempt and non-represented employees, along with represented employees of the Register of Wills and employees represented by AFSCME DC 33 who have chosen not to become members of the union's healthcare plan, receive health benefits through a plan sponsored and administered by the City. Each of the plans provides different benefits determined by the plan sponsor or through collective bargaining. To provide health care coverage, the City pays a negotiated monthly premium for employees covered by the union contract for AFSCME DC 33 and is self-insured for all other eligible employees. Aside from AFSCME DC 33, the City is responsible for the actual health care cost that is invoiced to the City's unions by their respective vendors. The actual cost can be a combination of self-insured claim expenses, premiums, ancillary services, and administrative expenses. In addition, employees who satisfy certain eligibility criteria receive five years of health benefits after their retirement. See "OTHER POST-EMPLOYMENT BENEFITS" below. Such benefits are determined and administered by the plan in which the employee participated at the time of his or her retirement. Other employee benefits, including life insurance and paid leave, are similarly determined by the respective collective bargaining agreements, as well as City policies and Civil Service Regulations. Employees also participate in the Municipal Pension Plan. See "PENSION SYSTEM" below.

Overview of Current Labor Situation

Table 18 summarizes the current status of the contract settlements reached with the City's major labor organizations, as well as changes that have been made for non-represented employees. It also provides a brief summary of pension reforms that have occurred since 2016, as part of previous labor contract settlements. The following table does not include exempt employees. Such category of employees were subject to pay reductions in Fiscal Year 2021.

Table 18
Status of Arbitration Awards and Labor Contract Settlements

Organization	Authorized Number of Full-Time Citywide Employees Represented[1]	Status of Arbitration Award or Contract Settlement	Wage Increases	Pension Reforms[2]
FOP Lodge No. 5 (Police Department)	6,374	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.75% in Fiscal Year 2022 • 3.50% in Fiscal Year 2023 • 3.50% in Fiscal Year 2024	• Current employees in Plan 87 or Plan 10 will pay an additional .92% of salary effective 7/1/17, increasing by an additional .92% of salary effective 7/1/18 (total increase of 1.84%). These contributions are on top of the current 5% or 6% contribution rates in effect, varies by plan membership • Employees hired on or after 7/1/17 will be required to pay an additional 2.5% of salary
FOP Lodge No. 5 (Sheriff's Office and Register of Wills)	365	Three-year contract effective July 1, 2021 through June 30, 2024	Sheriff's Office employees: • 2.75% in Fiscal Year 2022 • 3.50% in Fiscal Year 2023 • 3.50% in Fiscal Year 2024 Register of Wills employees: • 2.5% in Fiscal Year 2022 • 3.50% in Fiscal Year 2023 • 3.50% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 • Plan 10 is closed to new enrollment for members of Lodge 5 • DROP (as defined below) interest rate decreases from 4.5% to the rate on the one-year treasury effective January 1 of each year for participants not currently enrolled or eligible to enroll
IAFF Local 22	2,664	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.75% in Fiscal Year 2022 • 3.50% in Fiscal Year 2023 • 3.50% in Fiscal Year 2024	• Current employees in Plan 87 or Plan 10 will pay an additional .92% of salary effective 7/1/17, increasing by an additional .92% of salary effective 7/1/18 (total increase of 1.84%). These contributions are on top of the current 5% or 6% contribution rates in effect; varies by plan membership • Employees hired on or after 7/1/17 will be required to pay an additional 2.5% of salary
AFSCME DC 33	8,109	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.50% in Fiscal Year 2022 • 3.25% in Fiscal Year 2023 • 3.25% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 • Plan 10 is closed to new enrollment for members of DC33 • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year for participants not currently enrolled or eligible to enroll

(1) From data provided by the Mayor's Office of Labor Relations on March 31, 2021.
(2) "Plan 87," "Plan 10," and "Plan 16" referenced in this column are described in Table 19.

Organization	Authorized Number of Full-Time Citywide Employees Represented[1]	Status of Arbitration Award or Contract Settlement	Wage Increases	Pension Reforms[2]
AFSCME DC 33, Local 159 Correctional Officers	1,812	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.75% in Fiscal Year 2022 • 3.25% in Fiscal Year 2023 • 3.25% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 • Plan 10 is closed to new enrollment for members of DC33 • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year for participants not currently enrolled or eligible to enroll
AFSCME DC 47	3,736	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.50% in Fiscal Year 2022 • 3.25% in Fiscal Year 2023 • 3.25% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund (effective January 1, 2019) • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 (effective January 1, 2019) • Plan 10 is closed to new enrollment for members of DC47 (effective January 1, 2019)
AFSCME DC 47 Local 810 Court Employees	479	Three-year contract effective July 1, 2021 through June 30, 2024	• 2.50% in Fiscal Year 2022 (plus $1,200 bonus) • 3.25% in Fiscal Year 2023 • 3.25% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contribution to the pension fund (effective January 1, 2019) • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 (effective January 1, 2019) • Plan 10 is closed to new enrollment for members of DC47 (effective January 1, 2019)
Non-Represented Employees	1,129	Changes for non-represented employees	• 2.50% in Fiscal Year 2022 • 3.25% in Fiscal Year 2023 • 3.25% in Fiscal Year 2024	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contribution to the pension fund (effective January 1, 2019) • Mandatory stacked-hybrid plan for new hires under which employees receive a defined benefit pension for their first $65,000 of earnings and a defined contribution pension for earnings above $65,000 (effective January 1, 2019) • Previous 2011 reforms to DROP program remain in place; interest rate was decreased from 4.5% to the rate on the one year treasury effective January 1 of each year for participants not currently enrolled or eligible to enroll and eligibility age remains increased by two years

(1) From data provided by the Mayor's Office of Labor Relations on March 31, 2021.
(2) "Plan 87," "Plan 10," and "Plan 16" referenced in this column are described in Table 19.

Certain features of the 1987 Plan ("Plan 87"), the 2010 Plan ("Plan 10"), and the 2016 Plan ("Plan 16") are summarized below. Plan 87 is solely a defined benefit plan. Plan 10 and Plan 16 are "hybrid" plans that include both defined benefit and defined contribution components. A more comprehensive summary of each plan is included as Appendix D of the July 1, 2021 Valuation (as defined herein). See "PENSION SYSTEM" below.

Table 19
Summary of Key Aspects of Plan 87, Plan 10, and Plan 16

Plan 87	Normal Retirement Eligibility	Average Final Compensation ("AFC")	Defined Benefit – Retirement Benefits Multiplier
Municipal (Plan Y)	Age 60 and 10 years of credited service[1]	Average of three highest calendar or anniversary years	• (2.2% x AFC x years of service up to 10 years) plus (2.0% x AFC x numbers of years in excess of 10 years), subject to a maximum of 100% of AFC
Police and Fire	Age 50 and 10 years of credited service[1]	Average of two highest calendar or anniversary years	• (2.2% x AFC x years of service up to 20 years) plus (2.0% x AFC x numbers of years in excess of 20 years), subject to a maximum of 100% of AFC
Elected Official (Plan L)	Age 55 and 10 years of credited service[2]	Average of three highest calendar or anniversary years	• 3.5% x AFC x years of service, subject to a maximum of 100% of AFC

Plan 10	Normal Retirement Eligibility	Average Final Compensation ("AFC")	Defined Benefit – Retirement Benefits Multiplier
Municipal	Age 60 and 10 years of credited service	Average of five highest calendar or anniversary years	• 1.25% x AFC x years of service up to 20 years
Police and Fire[3]	Age 50 and 10 years of credited service	Average of five highest calendar or anniversary years	• 1.75% x AFC x years of service up to 20 years - **Defined Contribution** • The City matches employee contributions at a 50% rate, with the total City match not to exceed 1.5% of compensation for each year. • After five years of credited service, the full amount in the account is distributed to the employee when he or she separates from City service. • The right to the portion of the account attributable to City contributions does not vest until the completion of five years of credited service.

Plan 16	Normal Retirement Eligibility	Average Final Compensation ("AFC")	Defined Benefit – Retirement Benefits Multiplier
Municipal	Age 60 and 10 years of credited service	Lesser of (i) AFC under Plan Y (of Plan 87) (which is the average of three highest calendar or anniversary years) or (ii) $65,000	• (2.2% x AFC x years of service up to 10 years) plus (2.0% x AFC x numbers of years in excess of 10 years), subject to a maximum of 100% of AFC - **Defined Contribution** • Employees may voluntarily participate in the defined contribution portion; employee contributions vest immediately. • For employees with annual salaries above the cap, the City matches employee contributions at a 50% rate, with the total City match not to exceed 1.5% of compensation for each year (only if employee is contributing); the City's matching contributions vest after five years of credited service. • The maximum annual employee contribution is $20,500, excluding the City's matching contributions.

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(1) Five years of credited service for those who make additional contributions. See "PENSION SYSTEM – Pension System; Pension Board – Membership."
(2) The lesser of two full terms or eight years of credited service for those elected officials who make additional contributions. See "PENSION SYSTEM – Pension System; Pension Board – Membership."
(3) Under Plan 10 (Police and Fire), pension contributions freeze after 20 years. At such time and for each subsequent year, the employee's pension payments remain fixed and the employee may no longer make pension contributions.

Purchase of Services

The following table shows the City's major purchase of services, which represents one of the major classes of expenditures from the General Fund. Table 20 shows contracted costs of the City for Fiscal Years 2019-2021, the budgeted amounts and current estimates for Fiscal Year 2022, and the budgeted amounts for Fiscal Year 2023.

Table 20
Purchase of Services in the General Fund
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[(1), (7)]

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022	Current Estimate 2022	Adopted Budget 2023
Human Services[(2)]	$82.8	$88.6	$123.4	$142.6	$143.5	$152.6
Public Health	72.9	96.1	87.8	95.4	95.4	90.8
Public Property[(3)]	163.9	176.9	165.0	182.4	183.1	204.6
Streets[(4)]	53.5	54.4	67.2	68.2	61.6	73.1
First Judicial District	10.3	11.1	9.3	8.6	8.6	8.6
Licenses & Inspections	13.5	12.6	12.1	13.5	13.4	14.1
Homeless Services[(5)]	47.3	50.2	36.8	45.6	46.1	58.6
Prisons	92.5	101.0	95.2	98.2	110.8	104.7
All Other[(6)]	378.8	425.9	349.4	440.5	418.3	528.9
Total	**$915.5**	**$1,016.8**	**$946.2**	**$1,094.5**	**$1,080.8**	**$1,236.0**

(1) For Fiscal Years 2019-2020, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Year 2021, the City. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five Year Plan. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget and the Thirty-First Five Year Plan.
(2) Includes payments for care of dependent and delinquent children.
(3) Includes payments for SEPTA, space rentals, and utilities.
(4) Includes solid waste disposal costs.
(5) Includes homeless shelter and boarding home payments.
(6) Includes the Convention Center subsidy, payments for vehicle leasing, and debt service on lease and service agreement financings, among other things.
(7) Figures may not sum due to rounding.

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City Payments to School District

The following table presents the City's payments to the School District from the General Fund for Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, and the budgeted amount for Fiscal Year 2023.

Table 21
City Payments to School District
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[1]

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022	Current Estimate 2022	Adopted Budget 2023
City Payments to School District	$180.9	$227.1	$252.6	$256.0	$256.0	$270.0

(1) Sources: For Fiscal Years 2019-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.

Beginning with the City's adopted budget for Fiscal Year 2016, the City implemented a $25 million property tax increase and a $10 million parking tax increase to benefit the School District. The figures in Table 21 reflect such increases.

For more discussion of the School District, see "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – *Mayoral-Appointed or Nominated Agencies* – The School District," above. For a discussion of changes in the funding provided by the City to the School District, see "REVENUES OF THE CITY – Sales and Use Tax." For a discussion of the transition to AVI and how such transition affects funding for the School District, see "REVENUES OF THE CITY – Real Property Taxes."

City Payments to SEPTA

SEPTA operates a public transportation system within the City and Bucks, Chester, Delaware, and Montgomery counties. SEPTA's operating budget is supported by federal, Commonwealth, and local subsidies, including payments from the City. The following table presents the City's payments to SEPTA from the General Fund for Fiscal Years 2019-2021, the budgeted amount and current estimate for Fiscal Year 2022, and the budgeted amount for Fiscal Year 2023.

Table 22
City Payments to SEPTA
Fiscal Years 2019-2021 (Actual), 2022 (Adopted Budget and Current Estimate), and 2023 (Adopted Budget)
(Amounts in Millions of USD)[1]

	Actual 2019	Actual 2020	Actual 2021	Adopted Budget 2022	Current Estimate 2022	Adopted Budget 2023
City Payment to SEPTA	$84.6	$86.3	$84.6	$91.2	$91.2	$100.7

(1) Sources: For Fiscal Years 2019-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the Thirty-First Five-Year Plan, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.

The City budgets operating subsidies each Fiscal Year to match the estimated operating subsidies of the Commonwealth under Act 89. The state operating subsidy is funded through the Pennsylvania Public Transportation Trust Fund as created by Act 44 of 2007, amended by Act 89 of 2013. The local match requirement is calculated to match state operating subsidies. In addition, local matching funds must be appropriated each Fiscal Year in which state funds are received in order for SEPTA to receive the full allocation of state funds. The Thirty-First Five-Year Plan projects annual operating subsidy payments to SEPTA from the City will increase to approximately $116.0 million by Fiscal Year 2027. For more information on SEPTA, see APPENDIX IV – "TRANSPORTATION – Southeastern Pennsylvania Transportation Authority (SEPTA)."

City Payments to Convention Center Authority

In connection with the financing of the expansion to the Pennsylvania Convention Center and the refinancing of debt for the original Pennsylvania Convention Center construction, the Commonwealth, the City, and the Convention Center Authority entered into an operating agreement in 2010 (the "Convention Center Operating Agreement"). The Convention Center Operating Agreement provides for the operation of the Convention Center by the Convention Center Authority and includes an annual subsidy of $15,000,000 from the City to the Convention Center Authority in each Fiscal Year through Fiscal Year 2040.

As authorized by ordinance, the City has agreed to pay to the Convention Center Authority on a monthly basis a certain percentage of hotel room taxes and hospitality promotion taxes collected during the term of the Convention Center Operating Agreement. The remaining percentages of such taxes are paid to the City's tourism and marketing agencies. The General Fund does not retain any portion of the proceeds of the hotel room rental tax or the hospitality promotion tax.

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PENSION SYSTEM

The amounts and percentages set forth under this heading relating to the City's pension system, including, for example, actuarial liabilities and funded ratios, are based upon numerous demographic and economic assumptions, including the investment return rates, inflation rates, salary increase rates, post-retirement mortality, active member mortality, rates of retirement, etc. The reader is cautioned to review and carefully consider the assumptions set forth in the documents that are cited as the sources for the information in this section. In addition, the reader is cautioned that such sources and the underlying assumptions are relevant as of their respective dates, and are subject to changes, any of which could cause a significant change in the unfunded actuarial liability.

Each year, an actuarial valuation report of the City's pension system is published in late March or early April. Such report includes, as of July 1 of a given Fiscal Year, an examination of the current financial condition of the pension system, key historical trends, and the projected financial outlook of the pension system, among other information. In addition, an annual report on the audited financial statements of the City's pension system is published in late December or early January. The information included under the caption "PENSION SYSTEM" is derived from the actuarial valuation reports or the annual reports on the audited financial statements of the City's pension system, unless otherwise noted herein.

Overview

The City faces significant ongoing financial challenges in meeting its pension obligations, including an unfunded actuarial liability ("UAL") of approximately $5.4 billion as of July 1, 2021. In Fiscal Year 2021, the City's contribution to the Municipal Pension Fund was approximately $788.5 million, of which the General Fund's share (including the Commonwealth contribution) was $639.8 million. See Table 29. The City's aggregate pension costs (consisting of payments to the Municipal Pension Fund and debt service on the Pension Bonds (as defined herein)) have decreased from approximately 12.99% of the City's General Fund budget to approximately 12.44% of the General Fund budget from Fiscal Years 2012 to 2021. See Table 31.

The funded ratio of the Municipal Pension Plan was 76.7% on July 1, 1999 (at which time the UAL was approximately $1.4 billion), and was 54.9% on July 1, 2021 (at which time the UAL was approximately $5.4 billion). These metrics are the product of a number of factors, including the following:

- The declines in the equity markets in 2000-2001 and in 2008-2009. The City and its actuary are monitoring the 2022 declines in the fixed income and equity markets, the potential negative investment returns for the Municipal Pension System's assets, and the related impact on future City contributions to the Municipal Pension System. The actual investment return rate for Fiscal Year 2022, along with the findings and actuarial assumption changes contained in the most recent experience study, will be reflected in the July 1, 2022 actuarial valuation (expected to be available in March/April of 2023).

- A reduction in the assumed rate of return, from 8.75% as of July 1, 2008 to 7.45% effective July 1, 2021 (i.e., Fiscal Year 2022). The City also approved a further reduction in the assumed rate of return from 7.45% to 7.40% effective July 1, 2022 (Fiscal Year 2023). Although the gradual reductions in the assumed rates of return reflected in Table 24 are considered a prudent response to experience studies, by reducing the assumed return in the measurement of the actuarial liabilities, it serves to increase the UAL from what it otherwise would have been.

- Adopting more conservative mortality rates in response to experience studies performed by the Municipal Pension Plan actuary.

- The Municipal Pension Plan is a mature system, which means the number of members making contributions to the Municipal Pension Plan is less than the number of retirees and other beneficiaries receiving payments from the Municipal Pension Plan, by approximately 10,200. As a result, the aggregate of member contributions and the City's contributions are less than the amount of benefits and refunds payable in most years, with the result that in such years investment income must be relied upon to meet such difference before such income can contribute to an increase in the Municipal Pension System's assets growth. See Table 26 (which reflects that in Fiscal Years 2018-2020, however, the aggregate of member contributions and the City's contribution exceeded the amount of benefits and refunds payable in such Fiscal Years).

- The determination by the City, commencing in Fiscal Year 2005, to fund in accordance with the "minimum municipal obligation" ("MMO"), as permitted and as defined by Pennsylvania law, in lieu of the City Funding Policy (as defined herein), resulted in the City contributing less than otherwise would have been contributed. See below, "– Funding Requirements; Funding Standards."

- Revising, in Fiscal Year 2009, in accordance with Pennsylvania law, the period over which the UAL was being amortized, such that the UAL as of July 1, 2009 was "fresh started" to be amortized over a 30-year period ending June 30, 2039. In addition, changes were made to the periods over which actuarial gains and losses and assumption changes were amortized under Pennsylvania law. See "– UAL and its Calculation – Actuarial Valuations."

The City has taken a number of steps to address the funding of the Municipal Pension Plan, including the following:

- Reducing the assumed rate of return on a gradual and consistent basis, which results in the City making larger annual contributions. See Table 24 below.

- Adopting more conservative mortality rates in response to experience studies performed by the Municipal Pension Plan actuary reducing the potential for future experience losses due to mortality experience.

- In conjunction with the revisions to the amortization periods that occurred in Fiscal Year 2009, changing from a level percent of pay amortization schedule to a level dollar amortization schedule. This results in producing payments that ensure that a portion of principal on the UAL is paid each year.

- Funding consistently an amount greater than the MMO. See Table 29.

- Entering into collective bargaining agreements by which additional contributions are being made (and will be made) by certain current (and future) members and by which benefits will be capped for certain future members of the Municipal Pension Plan. See Table 18.

- Securing additional funding, including funds required to be deposited by the City to the Municipal Pension Fund from its share of sales tax revenue.

- Adopting a Revenue Recognition Policy (defined and described below), by which sources of anticipated additional revenue that will be received by the System are specifically dedicated toward paying down the unfunded pension liability and not to reducing future costs of the City. The additional revenue is tracked and accumulated in a notional account, which is then deducted from the Actuarial Asset Value to determine the contribution under the Revenue Recognition Policy. As a result, such contribution is higher than the MMO.

- Changing the investment strategy to increase the use of passive investment vehicles, which has resulted in increased returns and decreased fees.

As a result of (i) pension reforms adopting a defined benefit plan capped at $65,000 for new municipal employees, along with increased employee contributions, (ii) a portion of the sales tax dedicated to paying down the UAL, and (iii) the various other reforms mentioned above (including better than expected investment returns in recent years), the funded ratio of the Municipal Pension Plan increased from 45.3% in Fiscal Year 2017 to 54.9% in Fiscal Year 2021. During Fiscal Years 2019, 2020, and 2021, the UAL decreased by 3.2%, 2.3%, and 6.1%, respectively. The Municipal Pension Fund has also had a positive cash flow, excluding investment returns, for four consecutive Fiscal Years (see "– Rates of Return; Asset Values; Changes in Plan Net Position – Changes in Plan Net Position" and Table 26).

This "Overview" is intended to highlight certain of the principal factors that led to the pension system's current funded status, and significant steps the City and the Pension Board (as defined herein) have taken to address the underfunding. The reader is cautioned to review with care the more detailed information presented below under this caption, "PENSION SYSTEM."

Pension System; Pension Board

The City maintains two defined-benefit pension programs: (i) the Municipal Pension Plan, a single employer plan, which provides benefits to police officers, firefighters, non-uniformed employees, and non-represented appointed and elected officials, and (ii) the PGW Pension Plan, a single employer plan, which provides benefits to PGW employees. The Municipal Pension Plan is administered through 20 separate benefit structures, the funding for which is accounted for on a consolidated basis by the Municipal Pension Fund. Such benefit structures establish for their respective members different contribution levels, retirement ages, etc., but all assets are available to pay benefits to all members of the Municipal Pension Plan. The Municipal Pension Plan is a mature plan, initially established in 1915, with net investment assets that totaled approximately $7.3 billion as of June 30, 2021. The Municipal Pension Plan has approximately 27,000 members who make contributions to the plan, and provides benefits to approximately 37,200 retirees and other beneficiaries including terminated vested members.

PGW is principally a gas distribution facility owned by the City. For accounting presentation purposes, PGW is a component unit of the City and follows accounting rules as they apply to proprietary fund-type activities. The PGW Pension Plan is funded with contributions by PGW to such plan, which are treated as an operating expense of PGW, and such plan is not otherwise addressed under the caption "PENSION SYSTEM." See "PGW PENSION PLAN" below.

Contributions are made by the City to the Municipal Pension Fund from: (i) the City's General Fund; (ii) funds that are received by the City from the Commonwealth for deposit into the Municipal Pension Fund; and (iii) various City inter-fund transfers, representing amounts contributed, or reimbursed, to the City's General Fund for pensions from the City's Water Fund, Aviation Fund, and certain other City funds or agencies. See Table 29. In addition to such City (employer) contribution, the other principal additions to the Municipal Pension Fund are: (i) member (employee) contributions; (ii) interest and dividend income; (iii) net appreciation in asset values; and (iv) net realized gains on the sale of investments. See Table 26 below. An additional source of funding is that portion of the 1% Sales Tax rate increase that is required under Pennsylvania law to be deposited to the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."

The City of Philadelphia Board of Pensions and Retirement (the "Pension Board") was established by the City Charter to administer "a comprehensive, fair and actuarially sound pension and retirement system covering all officers and employees of the City." The City Charter provides that the Pension Board "shall consist of the Director of Finance, who shall be its chairman, the Managing Director, the City Controller, the City Solicitor, the Personnel Director and four other persons who shall be elected to serve on the Board by the employees in the civil service in such manner as shall be determined by the Board." In addition, there is one non-voting member on the Pension Board, who is appointed by the President of City Council. An Executive Director, together with a budgeted staff of 73 personnel, administers the day-to-day activities of the retirement system, providing services to approximately 64,200 members.

The Municipal Pension Plan, the Municipal Pension Fund, and the Pension Board are for convenience sometimes collectively referred to under this caption as the "Municipal Retirement System."

Membership. The following table shows the membership totals for the Municipal Pension Plan, as of July 1, 2021 and as compared to July 1, 2020.

Table 23
Municipal Pension Plan – Membership Totals

	July 1, 2021	**July 1, 2020**	**% Change**
Actives	27,020	28,892	-6.5%
Terminated Vesteds	900	929	-3.1%
Disabled	3,796	3,833	-1.0%
Retirees	22,202	22,249	-0.2%
Beneficiaries	8,445	8,471	-0.3%
Deferred Retirement Option Plan ("DROP")	1,878	1,642	14.4%
Total City Members	64,241	66,016	-2.7%
Annual Salaries	$1,886,511,515	$1,921,217,453	-1.8%
Average Salary per Active Member	$69,819	$66,497	5.0%
Annual Retirement Allowances	$804,906,478	$789,023,043	2.0%
Average Retirement Allowance	$23,369	$22,835	2.3%

Source: July 1, 2021 Valuation.

As shown in Table 23, total membership in the Municipal Pension Plan decreased by 2.7%, or from 66,016 to 64,241 members, from July 1, 2020 to July 1, 2021, including a decrease of 6.5% in active members from 28,892 to 27,020 (who were contributing to the Municipal Pension Fund). Of the 64,241 members, 37,221 were retirees, beneficiaries, disabled, and other members (who were withdrawing from, or not contributing to, the Municipal Pension Fund).

Subject to the exceptions otherwise described in this paragraph, employees and officials become vested in the Municipal Pension Plan upon the completion of ten years of service. Employees and appointed officials who hold positions that are exempt from civil service and who are not entitled to be represented by a union, and who were hired before January 13, 1999, may elect accelerated vesting after five years of service in return for payment of a higher employee contribution than if the vesting period were ten years. Such employees and officials become vested after five years of service if hired after January 13, 1999 or seven years of service if hired after January 1, 2019, and pay a higher employee contribution than if the vesting period were ten years. Elected officials become vested in the Municipal Pension Plan once they complete service equal to the lesser of two full terms in their elected office or eight years and pay a higher contribution than if the vesting period were ten years. Elected officials pay an additional employee contribution for the full cost of the additional benefits they may receive over those of general municipal employees. Upon retirement, employees and officials may receive up to 100% of their average final compensation depending upon their years of credited service and the plan in which they participate.

All City employees participate in the U.S. Social Security retirement system except for uniformed Police and uniformed Fire employees.

Certain membership information relating to the City's municipal retirement system provided by the Pension Board is set forth in Appendix A to the July 1, 2021 Actuarial Valuation Report (the "July 1, 2021 Valuation") and includes as of July 1, 2021, among other information, active and non-active member data by plan, age/service distribution for active participants and average salary for all plans, and age and benefit distributions for non-active member data.

Funding Requirements; Funding Standards

City Charter. The City Charter establishes the "actuarially sound" standard quoted above. Case law has interpreted "actuarially sound" as used in the City Charter to require the funding of two components: (i) "normal cost" (as defined below) and (ii) interest on the UAL. (*Dombrowski v. City of Philadelphia*, 431 Pa. 199, 245 A.2d 238 (1968)).

Pennsylvania Law. The Municipal Pension Plan Funding Standard and Recovery Act (Pa. P.L. 1005, No. 205 (1984)) ("Act 205"), applies to all municipal pension plans in Pennsylvania, "[n]otwithstanding any provision of law, municipal ordinance, municipal resolution, municipal charter, pension plan agreement or pension plan contract to the contrary . . . ." Act 205 provides that the annual financial requirements of the Municipal Pension Plan are: (i) the normal cost; (ii) administrative expense requirements; and (iii) an amortization contribution requirement. In addition, Act 205 requires that the MMO be payable to the Municipal Pension Fund from City revenues, and that the City shall provide for the full amount of the MMO in its annual budget. The MMO is defined as "the financial requirements of the pension plan reduced by . . . the amount of any member contributions anticipated as receivable for the following year." Act 205 further provides that the City has a "duty to fund its municipal pension plan," and the failure to provide for the MMO in its budget, or to pay the full amount of the MMO, may be remedied by the institution of legal proceedings for mandamus.

In accordance with Pennsylvania law and Act 205, the City uses the entry age normal actuarial funding method, whereby "normal cost" (associated with active employees only) is the present value of the benefits that the City expects to become payable in the future distributed evenly as a percent of expected payroll from the age of first entry into the plan to the expected age at retirement. The City's share of such normal cost (to which the City adds the Plan's administrative expenses) is reduced by member contributions. The term "level" means that the contribution rate for the normal cost, expressed as a percentage of active member payroll, is expected to remain relatively level over time.

The City has budgeted and paid at least the full MMO amount since such requirement was established, and more specifically, prior to Fiscal Year 2005 the City had been contributing to the

Municipal Pension Plan the greater amount as calculated pursuant to the City Funding Policy which was implemented before Act 205 was effective, as described below. Beginning in Fiscal Year 2018, the City is contributing under the Revenue Recognition Policy (defined below), which requires higher contribution amounts than under the MMO. Payment of the MMO is a condition for receipt of the Commonwealth contribution to the Municipal Pension Fund. See Table 29.

Act 205 was amended in 2009 by Pa. P.L. 396, No. 44 ("Act 44") to authorize the City to: (i) "fresh start" the amortization of the UAL as of July 1, 2009 by a level annual dollar amount over 30 years ending June 30, 2039; and (ii) revise the amortization periods for actuarial gains and losses and assumption changes in accordance with Act 44, as described below under "UAL and its Calculation – Actuarial Valuations." In addition, Act 44 authorized the City to defer, and the City did defer, $150 million of the MMO otherwise payable in Fiscal Year 2010, and $80 million of the MMO otherwise payable in Fiscal Year 2011, subject to repayment of the deferred amounts by June 30, 2014. The City repaid the aggregate deferred amount of $230 million, together with interest at the then-assumed interest rate of 8.25%, in Fiscal Year 2013. See Table 29. Because the final amortization date is fixed, if all actuarial assumptions are achieved, the unfunded liability would decline to zero as of the final amortization date. To the extent future experience differs from the assumptions used to establish the 30-year fixed amortization payment schedule, new amortization bases attributable to a particular year's difference would be established and amortized over their own 20-year schedule.

GASB; City Funding Policy. Governmental Accounting Standards Board ("GASB") Statement No. 27, "Accounting for Pensions by State and Local Governmental Employers" ("GASB 27"), applied to the City for Fiscal Years beginning prior to July 1, 2014. For the Fiscal Year beginning July 1, 2014, GASB Statement No. 68 ("GASB 68"), which amends GASB 27 in several significant respects, applies. GASB 27 defined an "annual required contribution" ("ARC") as that amount sufficient to pay (i) the normal cost and (ii) the amortization of UAL, and provides that the maximum acceptable amortization period is 30 years (for the initial 10 years of implementation, 1996-2006, a 40-year amortization period was permitted). GASB 27 did not establish funding requirements for the City but rather was an accounting and financial reporting standard. GASB 68 does not require the calculation of an ARC but does require the City to include as a liability on its balance sheet the City's "net pension liability," as defined by GASB 68. The City has been funding the Municipal Pension Fund since Fiscal Year 2003 based on the MMO (at a minimum), including the deferral permitted by Act 44. See Table 29 below.

The City, prior to Fiscal Year 2005, had been funding the Municipal Pension Fund in accordance with what the City referred to as the "City Funding Policy." That reference was used and continues to be used in the Actuarial Reports. Under the City Funding Policy, the UAL as of July 1, 1985 was to be amortized over 34 years ending June 30, 2019, with payments increasing at 3.3% per year, the assumed payroll growth. This initial UAL base under the City's Funding Policy has now been fully amortized. Other changes in the unfunded actuarial liability were amortized in level-dollar payments over various periods as prescribed in Act 205. In 1999, the City issued pension funding bonds, the proceeds of which were deposited directly into the Municipal Pension Fund to pay down its UAL. See "– Annual Contributions – *Annual Debt Service Payments on the Pension Bonds*" below.

Revenue Recognition Policy. The City follows a policy (the "Revenue Recognition Policy") to contribute each year to the Municipal Pension Fund an amount in excess of the MMO. Aspects of such policy are mandated by City ordinance or labor agreements, as applicable. The determination for such additional funding is based on not including (i) the portion of the amounts generated by the increase in the Sales Tax rate that became effective on July 1, 2014 and are deposited to the Municipal Pension Fund (see "REVENUES OF THE CITY – Sales and Use Tax"), (ii) contributions to be made by City employees that are under Plan 16 (described above in the text that immediately follows Table 19), and

(iii) additional member contributions for current and future members in Plan 87 Police, Plan 87 Fire, and all Municipal Plans in the actuarial asset value when determining the annual contribution obligation.

The amounts projected by the City in the Thirty-First Five-Year Plan to be deposited from Sales Tax revenue into the Municipal Pension Fund, for Fiscal Years 2022-2027, respectively, are as follows: (i) $74.2 million; (ii) 78.8 million; (iii) $84.6 million; (iv) $91.0 million; (v) 97.9 million; and (vi) 104.5 million.

UAL and its Calculation

According to the July 1, 2021 Valuation, the funded ratio (the valuation of assets available for benefits to total actuarial liability) of the Municipal Pension Fund as of July 1, 2021 was 54.9% and the Municipal Pension Fund had an unfunded actuarial liability ("UAL") of $5.441 billion. The UAL is the difference between total actuarial liability ($12.074 billion as of July 1, 2021) and the actuarial value of assets ($6.633 billion as of July 1, 2021).

Key Actuarial Assumptions. In accordance with Act 205, the actuarial assumptions must be, in the judgment of both Cheiron (the independent consulting actuary for the Municipal Pension Fund) and the Pension Board, "the best available estimate of future occurrences in the case of each assumption." The assumed investment return rate used in the July 1, 2021 Valuation was 7.45% a year (which includes an inflation assumption of 2.75%), net of administrative expenses, compounded annually. For the prior actuarial valuation, the assumed investment return rate was 7.50%. See Table 24 for the assumed rates of return for Fiscal Years 2012 to 2021. The 7.50% was used to establish the MMO payment for Fiscal Year 2022 and 7.45% will be used to establish the MMO payment for Fiscal Year 2023.

Other key actuarial assumptions in the July 1, 2021 Valuation include the following: (i) total annual payroll growth of 3.30%, (ii) annual administrative expenses assumed to increase 3.30% per year, (iii) to recognize the expense of the benefits payable under the Pension Adjustment Fund (as described below), actuarial liabilities were increased by 0.54%, based on the statistical average expected value of the benefits, (iv) a vested employee who terminates will elect a pension deferred to service retirement age so long as their age plus years of service at termination are greater than or equal to 55 (45 for police and fire employees in the 1967 Plan), (v) for municipal and elected members, 65% of all disabilities are ordinary and 35% are service-connected, and (vi) for police and fire members, 25% of all disabilities are ordinary and 75% are service-connected.

"Smoothing Methodology". The Municipal Retirement System uses an actuarial value of assets to calculate its annual pension contribution, using an asset "smoothing method" to dampen the volatility in asset values that could occur because of fluctuations in market conditions. The Municipal Retirement System used a five-year smoothing prior to Fiscal Year 2009, and beginning with Fiscal Year 2009 began employing a ten-year smoothing. Using the ten-year smoothing methodology, investment returns in excess of or below the assumed rate are prospectively distributed in equal amounts over a ten-year period, subject to the requirement that the actuarial value of assets will be adjusted, if necessary, to ensure that the actuarial value of assets will never be less than 80% of the market value of the assets, nor greater than 120% of the market value of the assets. The actuarial value of assets as of July 1, 2021, was approximately 90.3% of the market value of the assets, as compared to 108.0% as of July 1, 2020.

Actuarial Valuations. The Pension Board engages an independent consulting actuary (currently Cheiron) to prepare annually an actuarial valuation report. Act 205, as amended by Act 44, establishes certain parameters for the actuarial valuation report, including: (i) use of the entry age normal actuarial cost method; (ii) that the report shall contain: (a) actuarial exhibits, financial exhibits, and demographic exhibits; (b) an exhibit of normal costs expressed as a percentage of the future covered payroll of the active membership in the Municipal Pension Plan; and (c) an exhibit of the actuarial liability of the Municipal Pension Plan; and (iii) that changes in the actuarial liability be amortized in level-dollar payments as follows: (a) actuarial gains and losses be amortized over 20 years beginning July 1, 2009 (prior to July 1, 2009, gains and losses were amortized over 15 years); (b) assumption changes be amortized over 15 years beginning July 1, 2010 (prior to July 1, 2010, assumption changes were amortized over 20 years); (c) plan changes for active members be amortized over 10 years; (d) plan changes for inactive members be amortized over one year; and (e) plan changes mandated by the Commonwealth be amortized over 20 years.

Act 205 further requires that an experience study be conducted at least every four years, and cover the five-year period ending as of the end of the plan year preceding the plan year for which the actuarial valuation report is filed. An Experience Study was prepared by Cheiron in March 2018 for the period July 1, 2012 – June 30, 2017. The actuarial and demographic assumptions that were adopted by the Pension Board in response to such Experience Study continue to be employed for the July 1, 2021 Valuation (which was used to determine the June 30, 2023 fiscal year end MMO, City Funding Policy, and Revenue Recognition Policy contributions). Details of these assumption changes and the experience of the Municipal Pension Plan can be found in the *City of Philadelphia Municipal Retirement System Experience Study Results for the period covering July 1, 2012 – June 30, 2017,* available under the "Financial Reports" section of the City's Investor Website.

The most recent Experience Study, *The City of Philadelphia Municipal Retirement System Experience Study Results for the period covering July 1, 2016 – June 30, 2021,* was approved by the Pension Board in March 2022. Such Experience Study can be found under the "Financial Reports" section of the City's Investor Website. The findings and actuarial assumption changes contained therein will be effective for the July 1, 2022 actuarial valuation.

Pension Adjustment Fund

Pursuant to § 22-311 of the Philadelphia Code, the City directed the Pension Board to establish a Pension Adjustment Fund ("PAF") on July 1, 1999, and further directed the Pension Board to determine, effective June 30, 2000 and each Fiscal Year thereafter, whether there are "excess earnings" as defined available to be credited to the PAF. The Pension Board's determination is to be based upon the actuary's certification using the "adjusted market value of assets valuation method" as defined in § 22-311. Although the portion of the assets attributed to the PAF is not segregated from the assets of the Municipal Pension Fund, the Philadelphia Code provides that the "purpose of the Pension Adjustment Fund is for the distribution of benefits as determined by the Board for retirees, beneficiaries or survivors [and] [t]he Board shall make timely, regular and sufficient distributions from the Pension Adjustment Fund in order to maximize the benefits of retirees, beneficiaries or survivors." Distributions are to be made "without delay" no later than six months after the end of each Fiscal Year. The PAF was established, in part, because the Municipal Retirement System does not provide annual cost-of-living increases to retirees or beneficiaries. At the time the PAF was established, distributions from the PAF were subject to the restriction that the actuarial funded ratio using the "adjusted market value of assets" be not less than such ratio as of July 1, 1999 (76.7%). That restriction was deleted in 2007.

The amount to be credited to the PAF is 50% of the "excess earnings" that are between one percent (1%) and six percent (6%) above the actuarial assumed investment rate. Earnings in excess of six percent (6%) of the actuarial assumed investment rate remain in the Municipal Pension Fund. Although the Pension Board utilizes a ten-year smoothing methodology, as explained above, for the actuarial valuation of assets for funding and determination of the MMO, § 22-311 provides for a five-year smoothing to determine the amount to be credited to the PAF.

The actuary determined that for the Fiscal Year ended June 30, 2021, there were "excess earnings" as defined to be credited to the PAF. As such, there was a one-time transfer of $74.9 million into the PAF as of June 30, 2021. Such funds are removed from the assets used in determining the City's obligations. The Pension Board transfers to the PAF the full amount calculated by the actuary as being available in any year for transfer within six months of the Pension Board designating the amount to be transferred.

Transfers to the PAF and the resultant additional distributions to retirees result in removing assets from the Municipal Pension Plan. To account for the possibility of such transfers, and as an alternative to adjusting the assumed investment return rate to reflect such possibility, the actuary applies a load of 0.54% to the calculated actuarial liability as part of the funding requirement and MMO. Such calculation was utilized for the first time in the July 1, 2013 actuarial valuation.

The market value of assets as used under this caption, "PENSION SYSTEM," represents the value of the assets if they were liquidated on the valuation date and this value includes the PAF (except as otherwise indicated in certain tables), although the PAF is not available for funding purposes. The actuarial value of assets does not include the PAF.

Rates of Return; Asset Values; Changes in Plan Net Position

Rates of Return. The following table sets forth for the Fiscal Years 2012-2021 the market value of assets internal rate of return and actuarial value of assets internal rate of return experienced by the Municipal Pension Fund, and the assumed rate of return. The 5-year and 10-year annual average returns as of June 30, 2021, were 11.17% and 7.81%, respectively, on a market value basis.

Table 24
Municipal Pension Fund
Annual Rates of Return

Year Ending June 30,	Market Value	Actuarial Value[(1)]	Assumed Rate of Return
2012	0.2%	2.4%	8.10%
2013	10.9%	5.1%	7.95%
2014	15.7%	4.8%	7.85%
2015	0.3%	5.8%	7.80%
2016	-3.2%	4.5%	7.75%
2017	13.1%	4.4%	7.70%
2018	9.0%	5.1%	7.65%
2019	5.7%	7.6%	7.60%
2020	1.5%	6.5%	7.55%
2021	28.4%	6.3%	7.50%

Source: July 1, 2021 Valuation.

(1) Net of PAF. See "Pension Adjustment Fund" above. The actuarial values reflect a ten-year smoothing.

Asset Values. The following table sets forth, as of the July 1 actuarial valuation date for the years 2012-2021, the actuarial and market values of assets in the Municipal Pension Fund and the actuarial value as a percentage of market value.

Table 25
Actuarial Value of Assets vs. Market Value of Net Assets
(Dollar Amounts in Millions of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets[1]	Market Value of Net Assets[1]	Actuarial Value as a Percentage of Market Value
2012[2]	$4,716.8	$4,151.8	113.6%
2013	$4,799.3	$4,444.1	108.0%
2014	$4,814.9	$4,854.3	99.2%
2015	$4,863.4	$4,636.1	104.9%
2016	$4,936.0	$4,350.8	113.5%
2017	$5,108.6	$4,873.0	104.8%
2018	$5,397.4	$5,340.1	101.1%
2019	$5,852.5	$5,687.2	102.9%
2020	$6,242.7	$5,781.6	108.0%
2021	$6,633.1	$7,348.5	90.3%

Source: July 1, 2021 Valuation for Actuarial Value of Assets; 2012-2020 Actuarial Reports for Market Value of Net Assets.

(1) For purposes of this table, the Market Value of Net Assets excludes the PAF, which as of June 30, 2021 equaled $76.5 million. The Actuarial Value of Assets excludes that portion of the Municipal Pension Fund that is allocated to the PAF. The actuarial values reflect a ten-year smoothing.

(2) The July 1, 2012 actuarial and market values of assets includes a deferred contribution of $80 million. See Table 29 below.

Changes in Plan Net Position. The following table sets forth, for Fiscal Years 2017-2021, the additions, including employee (member) contributions, City contributions (including contributions from the Commonwealth), investment income and miscellaneous income, and deductions, including benefit payments and administration expenses, for the Municipal Pension Fund. Debt service payments on pension funding bonds (as described below at "Annual Contributions – *Annual Debt Service Payments on the Pension Bonds*") are made from the City's General Fund, Water Operating Fund, and Aviation Operating Fund, but are not made from the Municipal Pension Fund, and therefore are not included in Table 26. In those years in which the investment income is less than anticipated, the Municipal Pension Fund may experience negative changes (total deductions greater than total additions). Furthermore, if unrealized gains are excluded from Table 26, resulting in a comparison of cash actually received against actual cash outlays, it results in a negative cash flow in Fiscal Years 2017 and 2021, which is typical of a mature retirement system. In Fiscal Years 2018-2021, there was a positive cash flow.

Contributions from the Commonwealth are provided pursuant to the provisions of Act 205. Any such contributions are required to be used to defray the cost of the City's pension system. The amounts contributed by the Commonwealth for each of the last ten Fiscal Years are set forth in Table 29 below. The contributions from the Commonwealth are capped pursuant to Act 205, which provides that "[n]o municipality shall be entitled to receive an allocation of general municipal pension system State aid in an amount greater that 25% of the total amount of the general municipal pension system State aid available."

Employee (member) contribution amounts reflect contribution rates as a percent of pay, which for the plan year beginning July 1, 2021, vary from 6.00% to 8.50% for police and fire employees, and from

2.42% to 7.00% for municipal employees excluding elected officials. These rates include the increases for police employees effective July 1, 2017 resulting from the FOP Lodge No. 5 and IAFF Local No. 22 Labor Contracts. Such contracts increased member contributions for current police officers in Plan 87 and Plan 10 by 0.92% effective July 1, 2017 and an additional 0.92% effective July 1, 2018. For new police officers and fire fighters hired or rehired on or after July 1, 2017, the member contribution rate is increased by 2.5% over the rate which would otherwise be in effect as of July 1, 2017. The rates also include the increases in contributions for certain municipal employees and elected officials currently in Plans 67, 87 and 87 Prime and elected officials as required by legislation. This legislation called for employees in these groups to pay an additional 0.5% of compensation from January 1, 2015 to December 31, 2015 and an additional 1.0% from January 1, 2016 onwards. New employees in these groups entering Plan 87 Municipal Prime will pay an additional 1.0% of compensation, which is included in the table below. Finally, these rates do not include the additional tiered contributions paid by current and future municipal employees based on their level of compensation.

Table 26
Changes in Net Position of the Municipal Pension Fund
Fiscal Years 2017-2021
(Amounts in Thousands of USD)

	2017	2018	2019	2020	2021
Beginning Net Assets (Market Value)[1]	$4,357,975	$4,874,075	$5,341,286	$5,688,383	$5,782,891
Additions					
- Member Contributions	73,607	83,289	99,180	111,825	111,273
- City Contributions[2]	706,237	781,984	797,806	768,721	788,483
- Investment Income[3]	563,372	438,515	301,749	85,228	1,642,217
- Miscellaneous Income[4]	3,253	1,812	1,987	1,923	1,273
Total	$1,346,469	$1,305,600	$1,200,721	$967,697	$2,543,246
Deductions					
- Benefits and Refunds	(821,495)	(828,266)	(842,469)	(862,198)	(891,445)
- Administration	(8,874)	(10,123)	(11,155)	(10,991)	(9,709)
Total	$(830,369)	$(838,389)	$(853,624)	$(873,189)	$(901,154)
Ending Net Assets (Market Value)	$4,874,075	$5,341,286	$5,688,383	$5,782,891	$7,424,983

Source: Municipal Pension Fund's audited financial statements.

(1) Includes the PAF, which is not available for funding purposes.

(2) City Contributions include pension contributions from the Commonwealth. See Table 29.

(3) Investment income is shown net of fees and expenses, and includes interest and dividend income, net appreciation (depreciation) in fair value of investments, and net gains realized upon the sale of investments.

(4) Miscellaneous income includes securities lending and other miscellaneous revenues.

Funded Status of the Municipal Pension Fund

The following two tables set forth, as of the July 1 actuarial valuation date for the years 2012-2021, the asset value, the actuarial liability, the UAL, the funded ratio, covered payroll and UAL, as a percentage of covered payroll for the Municipal Pension Fund on actuarial and market value bases, respectively.

Table 27
Schedule of Funding Progress (Actuarial Value)
(Dollar Amounts in Millions of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets[1] (a)	Actuarial Liability (b)	UAL (Actuarial Value) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
2012	$4,716.8[2]	$9,799.9	$5,083.1	48.1%	$1,372.2	370.4%
2013	$4,799.3	$10,126.2	$5,326.9	47.4%	$1,429.7	372.6%
2014	$4,814.9	$10,521.8	$5,706.9	45.8%	$1,495.4	381.6%
2015	$4,863.4	$10,800.4	$5,937.0	45.0%	$1,597.8	371.6%
2016	$4,936.0	$11,024.8	$6,088.8	44.8%	$1,676.5	363.2%
2017	$5,108.6	$11,275.7	$6,167.1	45.3%	$1,744.7	353.5%
2018	$5,397.4	$11,521.0	$6,123.5	46.8%	$1,805.4	339.2%
2019	$5,852.5	$11,783.1	$5,930.6	49.7%	$1,842.6	321.9%
2020	$6,242.7	$12,038.1	$5,795.4	51.9%	$1,921.2	301.7%
2021	$6,633.1	$12,074.0	$5,441.0	54.9%	$1,886.5	288.4%

Source: July 1, 2021 Valuation.

(1) The July 1, 2012 Actuarial Value of Assets includes a deferred contribution of $80 million.

(2) Reflects the assumed rate of return on deferred contributions at the time of the deferral.

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Table 28
Schedule of Funding Progress (Market Value)
(Dollar Amounts in Millions of USD)

Actuarial Valuation Date (July 1)	Market Value of Net Assets[1] (a)	Actuarial Liability (b)	UAL (Market Value) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
2012	$4,151.8	$9,799.9	$5,648.1	42.4%	$1,372.2	411.6%
2013	$4,444.1	$10,126.2	$5,682.1	43.9%	$1,429.7	397.4%
2014	$4,854.3	$10,521.8	$5,667.6	46.1%	$1,495.4	379.0%
2015	$4,636.1[2]	$10,800.4	$6,164.3	42.9%	$1,597.8	385.8%
2016	$4,350.8[2]	$11,024.8	$6,674.0	39.5%	$1,676.5	398.1%
2017	$4,873.0[2]	$11,275.7	$6,402.7	43.2%	$1,744.7	367.0%
2018	$5,340.1[2]	$11,521.0	$6,180.9	46.4%	$1,805.4	342.4%
2019	$5,687.2[2]	$11,783.1	$6,095.9	48.3%	$1,842.6	330.8%
2020	$5,781.6[2]	$12,038.1	$6,256.5	48.0%	$1,921.2	325.7%
2021	$7,348.5[2]	$12,074.0	$4,725.5	60.9%	$1,886.5	250.5%

Source: 2012-2021 Actuarial Valuation Reports.

(1) The July 1, 2012 Market Value of Net Assets includes a deferred contribution of $80 million.

(2) For purposes of this table, the Market Value of Net Assets excludes the PAF, which as of June 30, 2015 equaled $38,198,762; as of June 30, 2016 equaled $7,222,828; as of June 30, 2017 equaled $1,097,499; as of June 30, 2018 equaled $1,160,247; as of June 30, 2019 equaled $1,225,114; as June 30, 2020 equaled $1,243,871; and as June 30, 2021 equaled $76,471,047.

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Annual Contributions

Annual Municipal Pension Contributions

Table 29 shows the components of the City's annual pension contributions to the Municipal Pension Fund for the Fiscal Years 2012-2021.

Table 29
Total Contribution to Municipal Pension Fund
(Dollar Amounts in Millions of USD)

Fiscal Year	General Fund Contribution (A)	Commonwealth Contribution (B)	Aggregate General Fund Contribution (A+B)	Water Fund Contribution	Aviation Fund Contribution	Grants Funding and Other Funds Contribution[1]	Contributions from Quasi-governmental Agencies	Pension Bond Proceeds	Total Contribution (C)	MMO (D)	MMO (Deferred) Makeup Payments	% of MMO Contributed (C/D)
2012	$352.7	$95.0	$447.7	$43.8	$20.6	$27.4	$16.2	$0.0	$555.7	$507.0	-	109.7%
2013	$356.5	$65.7	$422.2	$41.4	$20.3	$27.2	$18.1	$252.6[2]	$781.8	$492.0	$230.0[2]	100.0%[3]
2014	$365.8	$69.6	$435.4	$45.5	$22.5	$30.0	$19.8	$0.0	$553.2	$523.4	-	105.7%
2015	$388.5	$62.0	$450.5	$48.3	$23.9	$33.4	$21.1	$0.0	$577.2	$556.0	-	103.8%
2016	$449.6	$62.6	$512.2	$55.1	$27.1	$34.8	$31.0	$0.0	$660.2	$595.0	-	111.0%
2017	$487.0	$68.7	$555.7	$61.0	$28.8	$33.3	$27.4	$0.0	$706.2	$629.6	-	112.2%
2018	$559.7	$72.4	$632.1	$62.7	$28.8	$32.5	$25.9	$0.0	$782.0	$661.3	-	118.3%
2019	$567.7	$74.8	$642.5	$64.7	$31.6	$33.8	$25.2	$0.0	$797.8	$668.3	-	119.4%
2020	$545.1	$82.0	$627.1	$71.6	$34.0	$14.6	$21.4	$0.0	$768.7	$675.8	-	113.7%
2021	$558.5	$81.3	$639.8	$81.2	$34.7	$12.5	$20.3	$0.0	$788.5	$673.9	-	117.0%

(1) Other Funds Contributions represents contributions to the Municipal Pension Fund from the City's Special Gasoline Tax Fund, Community Development Block Grant Fund, Municipal Pension Fund, and Housing Trust Fund.

(2) As authorized pursuant to Act 44, the City deferred payments to the Municipal Pension Fund of $150 million in Fiscal Year 2010 and $80 million in Fiscal Year 2011. Those amounts were repaid in Fiscal Year 2013, in which year the City made a contribution of $252.6 million to the Municipal Pension Fund, consisting of $230 million of proceeds of Pension Bonds that were issued in October 2012 and $22.6 million in refunding savings from a refunding Pension Bond financing in December 2012. See "– *Annual Debt Service Payments on the Pension Bonds*" below.

(3) Act 205 directs the Actuary, in performing the actuarial valuations, to disregard deferrals, and therefore for ease of presentation 100.0% is reflected for the year in which the makeup payment was made.

Annual Debt Service Payments on the Pension Bonds

Pension funding bonds ("Pension Bonds") were initially issued in Fiscal Year 1999 (the "1999 Pension Bonds"), at the request of the City, by PAID. Debt service on the Pension Bonds is payable pursuant to a Service Agreement between the City and PAID. The Service Agreement provides that the City is obligated to pay a service fee from its current revenues and the City covenanted in the agreement to include the annual amount in its operating budget and to make appropriations in such amounts as are required. If the City's revenues are insufficient to pay the full service fee in any Fiscal Year as the same becomes due and payable, the City has covenanted to include amounts not so paid in its operating budget for the ensuing Fiscal Year.

The 1999 Pension Bonds were issued in the principal amount of $1.3 billion, and the net proceeds were used, together with other funds of the City, to make a contribution in Fiscal Year 1999 to the Municipal Pension Fund in the amount of approximately $1.5 billion.

In October 2012, PAID, at the request of the City, issued Pension Bonds in the principal amount of $231.2 million, the proceeds of which were used principally to make the $230 million repayment of deferred contributions to the Municipal Pension Fund reflected in Table 29 above. These bonds had maturities of April 1, 2013 and 2014, and have been repaid.

In December 2012, PAID, at the request of the City, issued Pension Bonds in the approximate principal amount of $300 million (the "2012 Pension Bonds"), the proceeds of which were used to currently refund a portion of the 1999 Pension Bonds. The refunding generated savings of approximately $22.6 million, which the City deposited into the Municipal Pension Fund.

In April 2021, PAID, at the request of the City, issued bonds in the approximate principal amount of $137 million, the proceeds of which were used, among other things, to refund a portion of the 1999 Pension Bonds and the 2012 Pension Bonds. Such refunding restructured debt service to provide the City with budgetary relief in Fiscal Years 2021 and 2022. No proceeds of the bonds were used to make a deposit to the City Retirement System.

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Table 30 shows the components of the City's annual debt service payments on the Pension Bonds for the Fiscal Years 2012-2021.

Table 30
Total Debt Service Payments on Pension Bonds
(Amounts in Millions of USD)

Fiscal Year	General Fund Payment	Water Fund Payment	Aviation Fund Payment	Other Funds Payment[1]	Grants Funding	Total Payment
2012	$100.1	$10.7	$4.8	$0.7	$3.4	$119.7
2013[2]	$196.6	$21.5	$10.1	$1.3	$3.8	$233.3
2014[2]	$211.0	$23.6	$11.2	$1.4	$3.7	$250.9
2015	$107.7	$12.6	$5.9	$0.8	$4.0	$131.0
2016	$109.9	$13.7	$6.4	$0.9	$3.8	$134.7
2017	$109.5	$14.5	$6.6	$0.9	$3.3	$134.8
2018	$110.1	$14.3	$6.3	$0.9	$3.1	$134.7
2019	$109.8	$14.2	$6.6	$1.1	$3.0	$134.7
2020	$110.1	$15.7	$7.1	$1.2	$0.6	$134.7
2021	$28.4	$4.5	$1.9	$0.3	$0.5	$35.6

(1) Other Funds Payments represents the allocable portion of debt service payments on the City's Pension Bonds from the City's Community Development Block Grant Fund and Municipal Pension Fund.

(2) The increase in debt service payments in Fiscal Years 2013 and 2014 over the Fiscal Year 2012 amounts reflect the debt service payments on the Pension Bonds that were issued in October 2012.

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Annual Pension Costs of the General Fund

Table 31 shows the annual pension costs of the General Fund for the Fiscal Years 2012-2021, being the sum of the General Fund Contribution to the Municipal Pension Fund (column (A) in Table 29 above) and the General Fund debt service payments on Pension Bonds (Table 30 above).

Table 31
Annual Pension Costs of the General Fund
(Amounts in Millions of USD)

Fiscal Year	General Fund Pension Fund Contribution (A)[1]	General Fund Pension Bond Debt Service Payment (B)	Annual Pension Costs (A+B)	Total General Fund Expenditures (C)	General Fund portion of Annual Pension Costs as % of Total General Fund Expenditures (A+B) / C
2012	$352.7	$100.1	$452.8	$3,484.88	12.99%
2013	$356.5	$196.6	$553.1	$3,613.27	15.31%
2014	$365.8	$211.0	$576.8	$3,886.56	14.84%
2015	$388.5	$107.7	$496.2	$3,831.51	12.95%
2016	$449.6	$109.9	$559.5	$4,015.80	13.93%
2017	$487.0	$109.5	$596.5	$4,139.80	14.41%
2018	$559.7	$110.1	$669.8	$4,402.85	15.21%
2019	$567.7	$109.8	$677.5	$4,772.39	14.20%
2020	$545.1	$110.1	$655.2	$5,036.53	13.01%
2021	$558.5	$28.4	$586.9	$4,717.75	12.44%

(1) Does not include Commonwealth contribution. See Table 29.

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The following table shows the annual City contribution to the Municipal Pension Fund as a percentage of the covered employee payroll.

Table 32
Annual City Contribution as % of Covered Employee Payroll
(Dollar Amounts in Thousands of USD)

Fiscal Year	Annual City Contribution	Fiscal Year Covered Employee Payroll[(1)]	ACC as % of Payroll
2012	$555,690	$1,372,174	40.50%
2013	$781,823	$1,429,723	54.68%
2014	$553,179	$1,495,421	36.99%
2015	$577,195	$1,597,849	36.12%
2016	$660,247	$1,676,549	39.38%
2017	$706,237	$1,744,728	40.48%
2018	$781,984	$1,805,400	43.31%
2019	$797,806	$1,842,555	43.30%
2020	$768,721	$1,921,217	40.01%
2021	$788,483	$1,886,512	41.80%

Source: Municipal Pension Fund Financial Statements, June 30, 2021.

(1) The definition of "covered-employee payroll" in GASB 68 differs slightly from the "covered payroll" definition in GASB 27. See "PENSION SYSTEM – Funding Requirements; Funding Standards – *GASB; City Funding Policy*."

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Actuarial Projections of Funded Status

Cautionary Note. The information under this subheading, "Actuarial Projections of Funded Status," was prepared by Cheiron. The table below shows a five-year projection of Revenue Recognition Policy ("RRP") payments, Actuarial Value of Assets, Actuarial Liability, UAL, and Funded Ratio. The charts below show projections of funded ratios and City contributions based on the RRP through Fiscal Year 2041. All projections, whether for five years or for twenty years, are subject to actual experience deviating from the underlying assumptions and methods, and that is particularly the case for the charts below for the periods beyond the projections in the five-year table. **Projections and actuarial assessments are "forward looking" statements and are based on assumptions which may not be fully realized in the future and are subject to change, including changes based on the future experience of the City's Municipal Pension Fund and Municipal Pension Plan.**

The projections are on the basis that all assumptions as reflected in the July 1, 2021 Valuation are exactly realized and the City makes all future RRP payments on schedule as required by the funding policy adopted by the Pension Board, and must be understood in the context of the assumptions, methods and benefits in effect as described in the July 1, 2021 Valuation. Included among such assumptions are: (i) the rates of return for the Municipal Pension Fund over the projection period will equal 7.45% in Fiscal Year 2022 and 7.40% annually thereafter, (ii) RRP contributions will be made each year, (iii) the provisions of Act 205 as amended by Act 44 will remain in force during the projection period, and (iv) the future population changes of the participants in the pension plan will follow the demographic actuarial assumptions with the active population remaining constant in the future. They do not reflect any assumption changes resulting from the most recent Experience Study, which will be effective for the July 1, 2022 Valuation.

The July 1, 2021 Valuation includes charts reflecting the contributions based on MMO (Baseline projection set 1), and charts reflecting the additional contributions in accordance with the RRP (Baseline projection set 2). The charts provided below reflect the RRP contributions, which are higher than the MMO required under Pennsylvania law. Using the RRP, the System is projected to be 80% funded by 2028 and 100% funded by 2031, three years earlier than under the MMO projections. By the end of the projection period, the System is expected to be funded at 118.5% compared to 109.1% when MMO contributions are made. See the July 1, 2021 Valuation for further discussion of the assumptions and methodologies used by the Actuary in preparing the July 1, 2021 Valuation and the following projections, all of which should be carefully considered in reviewing the projections. The July 1, 2021 Valuation is available for review on the website of the City's Board of Pensions. The table and charts below separately set forth estimates of Sales Tax revenues that will be deposited by the City into the Municipal Pension Fund, which were provided by the City to Cheiron at the time of the valuation and differ from the current estimates or budgeted amounts of such revenues as included in the Fiscal Year 2022 Adopted Budget, the Thirtieth Five-Year Plan, the FY 2022 Third Quarter QCMR, the Fiscal Year 2023 Adopted Budget, or the Thirty-First Five-Year Plan, as applicable. Cheiron has not analyzed and makes no representation regarding the validity of the sales tax revenue assumptions and estimates provided by the City. See "REVENUES OF THE CITY – Sales and Use Tax."

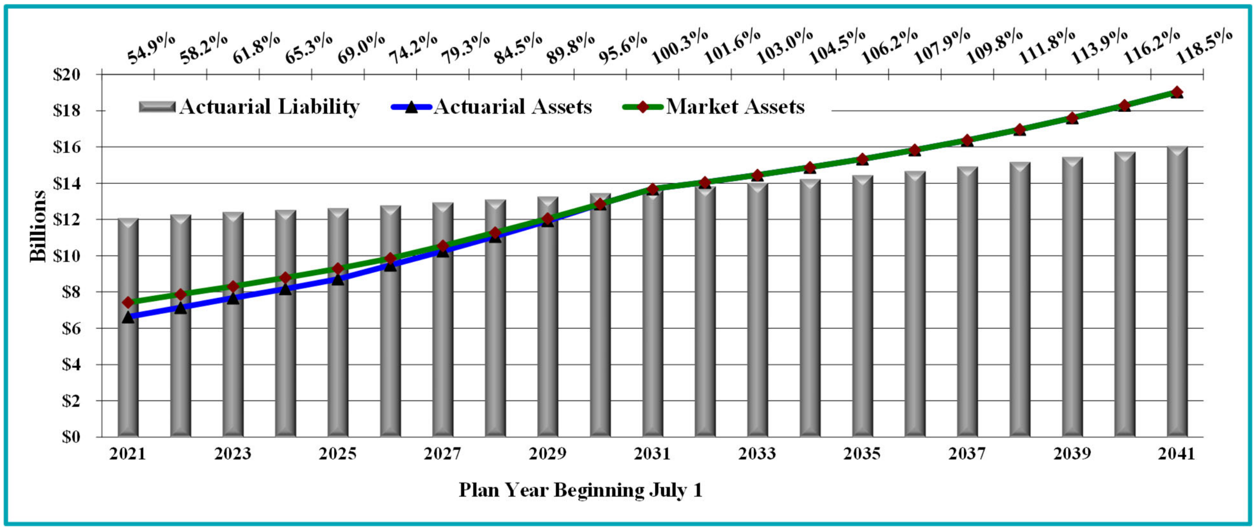
Each of the tables and graphs that follow are shown in Appendix E of the July 1, 2021 Valuation and such report should be referenced regarding the underlying benefits, methods, and assumptions utilized in the production of these values.

Five-Year Projection. The following chart provides dollar amounts in millions of USD.

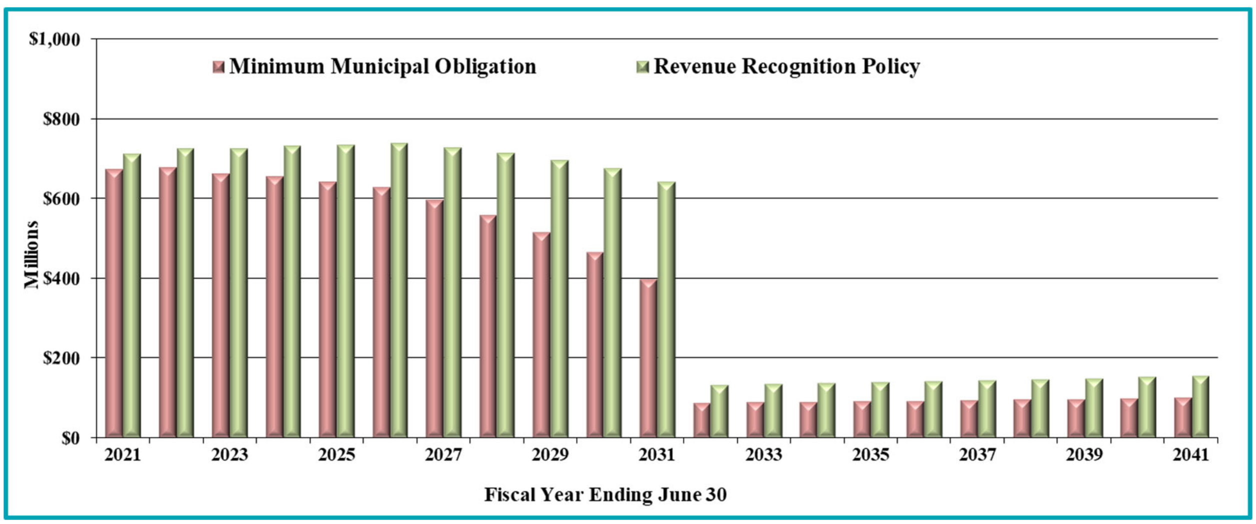
Table E-1 ($ millions)						
Fiscal Year End	RRP Contributions	Sales Tax Contributions	Actuarial Value of Assets	Actuarial Liability	Unfunded Actuarial Liability	Funded Ratio
2022	$ 727.4	$ 74.2	$ 6,633.1	$ 12,074.0	$ 5,441.0	54.9%
2023	726.5	78.8	7,143.4	12,280.2	5,136.8	58.2%
2024	733.9	84.6	7,668.8	12,414.0	4,745.2	61.8%
2025	735.5	91.0	8,179.2	12,531.8	4,352.6	65.3%
2026	740.4	97.9	8,716.5	12,632.1	3,915.7	69.0%
2027	728.9	104.5	9,480.9	12,782.7	3,301.8	74.2%

Twenty-Year Projections.

Funded Ratio Chart based on the RRP:



Expected City Contribution Chart based on the RRP:



OTHER POST-EMPLOYMENT BENEFITS

The City self-administers a single employer, defined benefit plan for post-employment benefits other than pension benefits ("OPEB"), and funds such plan on a pay-as-you-go basis. The City's OPEB plan provides for those persons who retire from the City and are participants in the Municipal Pension Plan: (i) post-employment healthcare benefits for a period of five years following the date of retirement and (ii) lifetime life insurance coverage ($7,500 for firefighters who retired before July 1, 1990; $6,000 for all other retirees). In general, retirees eligible for OPEB are those who terminate their employment after ten years of continuous service to immediately become pensioned under the Municipal Pension Plan.

To provide health care coverage, the City pays a negotiated monthly premium for retirees covered by the union contract for AFSCME DC 33 and is self-insured for all other eligible pre-Medicare retirees. Aside from AFSCME DC 33, the City is responsible for the actual health care cost that is invoiced to the City's unions by their respective vendors. The actual cost can be a combination of self-insured claim expenses, premiums, ancillary services, and administrative expenses. Eligible union represented employees receive five years of coverage through their union's health fund. The City's funding obligation for pre-Medicare retiree benefits is the same as for active employees. Union represented and non-union employees may defer their retiree health coverage until a later date. For some groups, the amount that the City pays for their deferred health care is based on the value of the health benefits at the time the retiree claims the benefits, but for police and fire retirees who retired after an established date, the City pays the cost of five years of coverage when the retiree claims the benefits.

The annual payments made by the City for OPEB for Fiscal Years 2017-2021 are shown in Table 33 below.

Table 33
Annual OPEB Payment
(Amounts in Thousands of USD)

Fiscal Year ended June 30,	Annual OPEB Payment
2017	$114,800
2018	$96,400
2019	$96,900
2020	$104,600
2021	$97,800

Source: See Note IV.3 to the City's ACFRs for such Fiscal Years.

For financial reporting purposes, although the City funds OPEB on a pay-as-you-go basis, it is required to include in its financial statements (in accordance with GASB Statement No. 75) a calculation similar to that performed to calculate its pension liability. Pursuant to GASB 75, an annual required contribution is calculated which, if paid on an ongoing basis, is projected to cover normal costs each year and to amortize any unfunded actuarial liability over a period not to exceed 30 years. As of June 30, 2020, the date of the most recent actuarial valuation, the UAL for the City's OPEB was $2.087 billion, the covered annual payroll was $1.921 billion, and the ratio of UAL to the covered payroll was 108.64%. See Note IV.3 to the Fiscal Year 2021 ACFR.

PGW PENSION PLAN

General

PGW consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing, and distribution of gas within the City, and all property, books, and records employed and maintained in connection with the operation, maintenance, and administration of PGW. The City Charter provides for a Gas Commission (the "Gas Commission") to be constituted and appointed in accordance with the provisions of contracts between the City and the operator of PGW as may from time to time be in effect, or, in the absence of a contract, as may be provided by ordinance. The Gas Commission consists of the City Controller, two members appointed by City Council and two members appointed by the Mayor.

PGW is operated by PFMC, pursuant to an agreement between the City and PFMC dated December 29, 1972, as amended, authorized by ordinances of City Council (the "Management Agreement"). Under the Management Agreement, various aspects of PFMC's management of PGW are subject to review and approval by the Gas Commission. The Pennsylvania Public Utility Commission (the "PUC") has the regulatory responsibility for PGW with regard to rates, safety, and customer service.

The City sponsors the Philadelphia Gas Works Pension Plan (the "PGW Pension Plan"), a single employer defined benefit plan, to provide pension benefits for certain current and former PGW employees and other eligible class employees of PFMC and the Gas Commission. As plan sponsor, the City, through its General Fund, could be responsible for plan liabilities if the PGW Pension Plan does not satisfy its payment obligations to PGW retirees. At June 30, 2021, the PGW Pension Plan membership total was 3,418, comprised of: (i) 2,296 retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them; and (ii) 1,122 participants, of which 872 were vested and 250 were nonvested.

PGW Pension Plan

The PGW Pension Plan provides retirement benefits as well as death and disability benefits. Retirement benefits vest after five years of credited service. Retirement payments for vested employees commence: (i) at age 65 and five years of credited service; (ii) age 55 and 15 years of credited service; or (iii) without regard to age, after 30 years of credited service. For covered employees hired prior to May 21, 2011 (union employees) or prior to December 21, 2011 (non-union employees), PGW pays the entire cost of the PGW Pension Plan. Union employees hired on or after May 21, 2011 and non-union employees hired on or after December 21, 2011 have the option to participate in the PGW Pension Plan and contribute 6% of applicable wages or participate in a plan established in compliance with Section 401(a) of the Internal Revenue Code (deferred compensation plan) and have PGW contribute 5.5% of applicable wages.

PGW is required by statute to contribute the amounts necessary to fund the PGW Pension Plan. The PGW Pension Plan is funded with (i) contributions by PGW, (ii) contributions from the Sinking Fund Commission of the City (the "Sinking Fund Commission"), (iii) investment earnings, and (iv) employee contributions required for new hires after December 2011 who elect to participate in the PGW Pension Plan. Each month, the Sinking Fund Commission sends, in two separate payments, (i) approximately \$2.3 million and (ii) one-twelfth of PGW's annual contribution to the applicable bank account for processing and payment to PGW pensioners.

Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance. The pension payments are treated as an operating expense of PGW and are included as a component of PGW's base rate. The PUC approves all items that are to be included in PGW's base rates.

Effective October 2015, payments to beneficiaries of the PGW Pension Plan are made by the PGW Retirement Reserve Fund. Prior to October 2015, payments to beneficiaries of the PGW Pension Plan were made by PGW through its payroll system. The financial statements for the PGW Pension Plan for the fiscal year ended June 30, 2021, show an amount due to PGW of approximately $0.2 million, which represents the cumulative excess of payments made to the retirees and administrative expenses incurred by PGW, over the sum of PGW's required annual contribution and reimbursements received from the PGW Pension Plan.

Pension Costs and Funding

PGW pays an annual amount that is projected to be sufficient to cover its normal cost and an amortization of the PGW Pension Plan's UAL. The following table shows the normal cost, the amortization payment, and the resulting annual required contribution as of the last five actuarial valuation dates for the PGW Pension Plan. Prior to fiscal year 2016, PGW had been using a 20-year open amortization period (and the payments in Table 34 are on the basis of a 20-year open amortization). Commencing in PGW's fiscal year 2016, PGW calculated an annual required contribution on the basis of both a 20-year open amortization period and a 30-year closed amortization period and contributed the higher of the two amounts. An open amortization period is one that begins again or is recalculated at each actuarial valuation date. With a closed amortization period, the unfunded liability is amortized over a specific number of years to produce a level annual payment. Because the final amortization date is fixed, if all actuarial assumptions are achieved, the unfunded liability would decline to zero as of the final amortization date. To the extent future experience differs from the assumptions used to establish the 30-year fixed amortization payment schedule, new amortization bases attributable to a particular year's difference would be established and amortized over their own 30-year schedule. Commencing in PGW's fiscal year 2021, PGW's annual contribution is required to be at least $30,000,000 annually unless changed by written directive of the Finance Director. The contribution amount exceeds the suggested level of funding in the Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan and is consistent with the contribution amount in PGW's base rates (i.e., rates PGW charges for services).

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Table 34
PGW Pension – Annual Required Contributions
(Dollar Amounts in Thousands of USD)

Calculation of ARC for the 12-month period ended:	Normal Cost[(1)] (A)	Amortization Payment[(1)] (B)	ARC[(1), (2)] (A + B)	Payments to Beneficiaries[(3)]
7/1/2017	$7,717	$19,678	$27,395	$51,376
7/1/2018	$7,760	$20,022	$27,782	$52,627
7/1/2019	$7,282	$18,617	$25,899	$53,893
7/1/2020	$6,161	$16,504	$22,665	$55,061
7/1/2021	$7,892	$17,375	$25,267	$56,647

(1) Source: The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan.

(2) Each ARC is the sum reflected in this table, but the "Calculated Mid-Year Contribution" in Tables 36 and 37 more closely approximates the actual pension contributions made by PGW.

(3) Sources: For 2017, the audited financial statements for PGW for the fiscal years ended August 31, 2017 and 2016. For 2018, the audited financial statements for PGW for the fiscal years ended August 31, 2018 and 2017. For 2019, the audited financial statements for PGW for the fiscal years ended August 31, 2019 and 2018. For 2020, the audited financial statements for PGW for the fiscal years ended August 31, 2020 and 2019. For 2021, the financial statements for PGW are for years ended August 31, 2021 and 2020.

Although PGW has paid its annual required contribution each year, the market value of assets for the PGW Pension Plan is less than the actuarial accrued liability, as shown in the next table.

Table 35
Schedule of Pension Funding Progress
(Dollar Amounts in Thousands of USD)[(1)]

Actuarial Valuation Date	Market Value of Assets	Actuarial Liability	UAL (Market Value)	Funded Ratio
7/1/2017	$521,526	$739,872	$218,346	70.49%
7/1/2018	$543,246	$758,069	$214,823	71.66%
7/1/2019	$553,240	$755,782	$202,542	73.20%
7/1/2020	$543,230	$741,279	$198,049	73.28%
7/1/2021	$673,542	$792,325	$118,783	85.01%

(1) Source: The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan.

The current significant actuarial assumptions for the PGW Pension Plan are: (i) investment return rate of 7.00% compounded annually; (ii) salaries are assumed to increase by an amount based on years of service, see table 3 in The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan; and (iii) retirements that are assumed to occur at the ages detailed in The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan.

The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan includes certain changes to the actuarial assumptions, including (i) modifications to mortality tables, turnover rates, disability rates, retirement rates, and salary scales, (ii) increases to assumed participant compensation in the final year of employment prior to retirement, and (iii) modifications to the optional payment form election percentages and the surviving spouse benefit assumptions.

PGW uses a September 1 – August 31 fiscal year, while the PGW Pension Plan uses a July 1 – June 30 fiscal year (the same as the City's fiscal year). The last five actuarial valuation reports for the PGW Pension Plan utilized a plan year of July 1 to June 30. This is reflected in Table 35 above.

The PGW Pension Plan actuary prepared a separate actuarial valuation report ("GASB 67 Report") for the fiscal year ending June 30, 2021, for purposes of plan reporting information under Governmental Accounting Standards Board Statement No. 67, "Financial Reporting for Pension Plans." The GASB 67 Report shows for the fiscal year ending June 30, 2021, an unfunded liability of approximately $138.2 million (rather than the approximately $118.8 million reflected in Table 35), which results in a funded ratio of 82.97%. In addition, that report provides an interest rate sensitivity, which shows that were the investment rate to be 6.00% (1% lower than the assumed investment rate of 7.00%), the unfunded liability would be approximately $225.0 million.

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Projections of Funded Status

The information under this subheading, "Projections of Funded Status," is extracted from tables prepared by Aon, as actuary to the PGW Pension Plan, which were included in their "Philadelphia Gas Works Pension Plan – Funding Alternative Funding Schedules July 1, 2021-June 30,2022". The charts show 10-year projections, using both the current amortization method (20-year, open) and the alternative amortization method (30-year, fixed). See "– Pension Costs and Funding" above. Projections are subject to actual experience deviating from the underlying assumptions and methods. **Projections and actuarial assessments are "forward looking" statements and are based upon assumptions that may not be fully realized in the future and are subject to change, including changes based upon the future experience of the PGW Pension Plan.**

Table 36
Schedule of Prospective Funded Status (20-Year Open Amortization)
(Dollar Amounts in Thousands of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets	Actuarial Accrued Liability	UAL (Actuarial Value)	Calculated Mid-Year Contribution[1, 2]	Funded Ratio
2021	$595,369	$792,325	$196,956	$30,000	75.14%
2022	633,076	796,780	163,704	22,963	86.89%
2023	662,484	800,449	137,965	20,477	87.99%
2024	690,193	803,285	113,092	18,069	88.84%
2025	720,490	805,618	85,128	15,471	89.43%
2026	724,716	807,532	82,816	15,240	89.74%
2027	728,657	808,985	80,329	15,009	90.07%
2028	732,436	810,367	77,931	14,853	90.38%
2029	736,231	811,958	75,727	14,720	90.67%
2030	740,166	813,875	73,709	14,613	90.94%

(1) Source: The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan.

(2) PGW makes monthly contributions to the PGW Retirement Reserve Fund. The actuary's report assumes contributions at the beginning, middle, and end of the plan year. PGW utilizes the mid-year contribution level to approximate the actual funding methodology.

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Table 37
Schedule of Prospective Funded Status (30-Year Closed Amortization)
(Dollar Amounts in Thousands of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets	Actuarial Accrued Liability	UAL (Actuarial Value)	Calculated Mid-Year Contribution[(1), (2)]	Funded Ratio
2021	$595,369	$792,325	$196,956	$30,000	75.14%
2022	633,076	796,780	163,704	22,316	79.45%
2023	661,815	800,449	138,634	20,486	82.68%
2024	689,486	803,285	113,800	18,672	85.83%
2025	720,358	805,618	85,260	16,662	89.42%
2026	725,807	807,532	81,725	16,624	89.88%
2027	731,256	808,985	77,729	16,584	90.39%
2028	736,848	810,367	73,519	16,613	90.93%
2029	742,773	811,958	69,185	16,657	91.48%
2030	749,171	813,875	64,704	16,721	92.05%

(1) Source: The Actuarial Valuation Report (Funding) for the Plan Year July 1, 2021 – June 30, 2022 for the PGW Pension Plan.

(2) PGW makes monthly contributions to the PGW Retirement Reserve Fund. The actuary's report assumes contributions at the beginning, middle, and end of the plan year. PGW utilizes the mid-year contribution level to approximate the actual funding methodology.

Additional Information

The City issues a publicly available financial report that includes financial statements and required supplementary information for the PGW Pension Plan. The report is not incorporated into this Official Statement by reference. The report may be obtained by writing to the Office of the Director of Finance of the City.

Further information on the PGW Pension Plan, including with respect to its membership, plan description, funding policy, actuarial assumptions and funded status is contained in the Fiscal Year 2021 ACFR.

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PGW OTHER POST-EMPLOYMENT BENEFITS

PGW provides post-employment healthcare and life insurance benefits to its participating retirees and their beneficiaries and dependents. The City, through its General Fund, could be responsible for costs associated with post-employment healthcare and life insurance benefits if PGW fails to satisfy its post-employment benefit obligations.

PGW pays the full cost of medical, basic dental, and prescription coverage for employees who retired prior to December 1, 2001. Employees who retire after December 1, 2001 are provided a choice of three plans at PGW's expense and can elect to pay toward a more expensive plan. Union employees hired prior to May 21, 2011 and non-union employees hired prior to December 21, 2011 who retire from active service to immediately begin receiving pension benefits are entitled to receive lifetime post-retirement medical, prescription, and dental benefits for themselves and, depending on their retirement plan elections, their dependents. Employees hired on or after those dates are entitled to receive only five years of post-retirement benefits. Currently, PGW provides for the cost of healthcare and life insurance benefits for retirees and their beneficiaries on a pay-as-you-go-basis.

As part of a July 29, 2010 rate case settlement (the "Rate Settlement"), which provided for the establishment of an irrevocable trust for the deposit of funds derived through a rider from all customer classes to fund OPEB liabilities (the "OPEB Surcharge"), PGW established the trust in July 2010, and began funding the trust in accordance with the Rate Settlement in September 2010. The Rate Settlement provided that PGW was to deposit $15.0 million annually for an initial five-year period towards the ARC, and an additional $3.5 million annually, which represented a 30-year amortization of the OPEB liability at August 31, 2010. These deposits were funded primarily through increased rates of $16.0 million granted in the Rate Settlement. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities (or funding excesses) over a period of 30 years. In PGW's 2015-2016 Gas Cost Rate ("GCR") proceeding, PGW proposed to continue its OPEB Surcharge. The parties to the GCR proceeding submitted a settlement agreement continuing the OPEB Surcharge at the same level of revenue ($16.0 million annually) and funding ($18.5 million annually). Such settlement agreement was approved by the PUC.

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Table 38 provides detail of actual PGW OPEB payments for the last five PGW Fiscal Years and projected PGW OPEB payments for PGW Fiscal Years 2022-2026. Table 39 is the schedule of PGW OPEB funding progress.

Table 38
PGW OPEB Payments
(Amounts in Thousands of USD)

	Calculation of OPEB Payment for the 12-month period ended:	Healthcare	Life Insurance	OPEB Trust	Total
Actual[1]					
	8/31/2017	$27,788	$1,777	$18,500	$48,065
	8/31/2018	$26,953	$1,661	$18,500	$47,114
	8/31/2019	$27,419	$1,629	$18,500	$47,548
	8/31/2020	$26,944	$1,661	$18,500	$47,105
	8/31/2021	$24,655	$1,725	$18,500	$44,880
Projections[2]					
	12/31/2022	$26,716	$1,700	$18,500	$46,916
	12/31/2023	$28,913	$1,700	$18,500	$49,113
	12/31/2024	$30,238	$1,700	$18,500	$50,438
	12/31/2025	$30,971	$1,700	$18,500	$51,171
	12/31/2026	$32,183	$1,700	$18,500	$52,383

(1) Source: PGW audited financial statements for fiscal year ended August 31, 2021.
(2) The Actuarial Valuation Report for the PGW Health and Life Insurance Plan GASB 75 Projected Costs – Discount Rate = 7.0%.

Table 39
Schedule of OPEB Funding Progress
(Dollar Amounts in Thousands of USD)

Actuarial valuation date	Actuarial value of assets	Actuarial liability	Unfunded actuarial liability	Funded ratio
12/31/2017[1]	$180,743	$559,631	$378,888	32.3%
12/31/2018[1]	$184,455	$520,533	$336,078	35.4%
12/31/2019[1]	$245,361	$493,570	$248,209	49.7%
12/31/2020[1]	$306,097	$507,667	$201,588	60.3%
12/31/2021[2]	$360,799	$534,735	$173,799	67.5%

(1) The Actuarial Valuation Report for the PGW Health and Life Insurance Plan for Retired Employees GASB 75 Financial Disclosure Report for the Fiscal Year Ended August 31, 2021.
(2) The Actuarial Valuation Report for the PGW Health and Life Insurance Plan GASB 75 Projected Costs – Discount rate = 7.0%.

CITY CASH MANAGEMENT AND INVESTMENT POLICIES

General Fund Cash Flow

Because the receipt of revenues into the General Fund generally lags behind expenditures from the General Fund during each Fiscal Year, the City issues notes in anticipation of General Fund revenues and makes payments from the Consolidated Cash Account (described below) to finance its on-going operations.

The timing imbalance referred to above results from a number of factors, principally the following: (i) Real Estate Taxes, BIRT, and Net Profits Taxes are not due until the latter part of the Fiscal Year; and (ii) the City experiences lags in reimbursement from other governmental entities for expenditures initially made by the City in connection with programs funded by other governments.

From time to time, the City issues, or PICA has issued on behalf of the City, tax and revenue anticipation notes. Each issue was repaid when due, prior to the end of the particular Fiscal Year. The City did not issue any tax and revenue anticipation notes in Fiscal Years 2019 or 2020. In September 2020, the City issued $300 million in tax and revenue anticipation notes, which matured on June 30, 2021 and have been paid in full. The City did not issue tax and revenue anticipation notes in Fiscal Year 2022. The City does not expect to issue tax and revenue anticipation notes in Fiscal Year 2023 or Fiscal Year 2024.

The repayment of the tax and revenue anticipation notes is funded through cash available in the General Fund.

Consolidated Cash

The Act of the General Assembly of June 25, 1919 (Pa. P.L. 581, No. 274, Art. XVII, § 6) authorizes the City to make temporary inter-fund loans between certain operating and capital funds. The City maintains a Consolidated Cash Account for the purpose of pooling the cash and investments of all City funds, except those which, for legal or contractual reasons, cannot be commingled (e.g., the Municipal Pension Fund, sinking funds, sinking fund reserves, funds of PGW, the Aviation Fund, the Water Fund, and certain other restricted purpose funds). A separate accounting is maintained to record the equity of each member fund that participates in the Consolidated Cash Account. The City manages the Consolidated Cash Account pursuant to the procedures described below.

To the extent that any member fund temporarily experiences the equivalent of a cash deficiency, an advance is made from the Consolidated Cash Account, in an amount necessary to result in a zero balance in the cash equivalent account of the borrowing fund. All subsequent net receipts of a member fund that has negative equity are applied in repayment of the advance.

All advances are made within the budgetary constraints of the borrowing funds. Within the General Fund, this system of inter-fund advances has historically resulted in the temporary use of tax revenues or other operating revenues for capital purposes and the temporary use of capital funds for operating purposes. With the movement of the reimbursable component of DHS activities from the General Fund to the Grants Revenue Fund, a similar system of advances has resulted in the use of tax revenues or other operating revenues in the General Fund to make expenditures from the Grants Revenue Fund, which advances may be outstanding for multiple Fiscal Years, but which are expected to be reimbursed by the Commonwealth.

The City, in addition to maintaining an ongoing cash reconciliation process, is reviewing and reconciling certain unidentified variances in the Consolidated Cash Account. The reconciliation process, in short, reconciles the account balance and activity shown on the records of the bank at which the cash balance of the Consolidated Cash Account is maintained to that shown on the City's records. The City's records were not consistently reconciled for the period of July 1, 2014 – June 30, 2017. The balance in the Consolidated Cash Account on the City's records was higher than the account balance on the bank's records by approximately $40 million, which is attributable principally to unidentified historic variances. The City engaged the services of an auditing firm to undertake a complete reconciliation and resolve the unidentified variances. In January 2019, a final audit report was delivered. The final reported variance was $528,606 and the City has written-off such amount, which completes the reconciliation efforts for the period of July 1, 2014 – June 30, 2017.

Procedures governing the City's cash management operations require the General Fund-related operating fund to borrow initially from the General Fund-related capital fund, and only to the extent there is a deficiency in such fund may the General Fund-related operating fund borrow money from any other funds in the Consolidated Cash Account.

Investment Practices

Cash balances in each of the City's funds are managed to maintain daily liquidity to pay expenses, and to make investments that preserve principal while striving to obtain the maximum rate of return. Pursuant to the City Charter, the City Treasurer is the City official responsible for managing cash collected into the City Treasury. The available cash balances in excess of daily expenses are placed in demand accounts, swept into money market mutual funds, or used to make investments directed by professional investment managers. These investments are held in segregated trust accounts at a separate financial institution. Cash balances related to revenue bonds for water and sewer and the airport are directly deposited and held separately in trust. A fiscal agent manages these cash balances in accordance with the applicable bond documents and the investment practice is guided by administrative direction of the City Treasurer per the Investment Committee and the Investment Policy (as described below). In addition, certain operating cash deposits (such as Community Behavioral Health, Special Gas/County Liquid and "911" surcharge) of the City are restricted by purpose and required to be segregated into accounts in compliance with federal or Commonwealth reporting.

Investment guidelines for the City are embodied in section 19-202 of the Philadelphia Code. In furtherance of these guidelines, as well as Commonwealth and federal legislative guidelines, the Director of Finance adopted a written Investment Policy (the "Policy") that went into effect in August 1994 and was most recently revised in January 2021. The Policy supplements other legal requirements and establishes guiding principles for the overall administration and effective management of all of the City's monetary funds (except the Municipal Pension Fund, the PGW Retirement Reserve Fund, the PGW OPEB Trust and the PGW Workers' Compensation Reserve Fund).

The Policy delineates permitted investments as authorized by the Philadelphia Code and the funds to which the Policy applies. Investment managers may invest in the instruments expressly listed in the Policy, which states that investments in instruments not listed as authorized investments are prohibited. The authorized investments include U.S. government securities, U.S. treasuries, U.S. agencies, repurchase agreements, commercial paper, corporate bonds, money market mutual funds, obligations of the Commonwealth, collateralized banker's acceptances and certificates of deposit, and collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality, all of investment grade rating or better and with maturity limitations.

U.S. government treasury and agency securities carry no limitation as to the percent of the total portfolio. Repurchase agreements, money market mutual funds, commercial paper, and corporate bonds are limited to investment of no more than 25% of the total portfolio. Obligations of the Commonwealth and collateralized banker's acceptances and certificates of deposit are limited to no more than 15% of the total portfolio. Collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality are limited to no more than 5% of the total portfolio.

U.S. government securities carry no limitation as to the percent of the total portfolio per issuer. U.S. agency securities are limited to no more than 33% of the total portfolio per issuer. Repurchase agreements and money market mutual funds are limited to no more than 10% of the total portfolio per issuer. Commercial paper, corporate bonds, obligations of the Commonwealth, collateralized banker's acceptances and certificates of deposit, and collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality are limited to no more than 3% of the total portfolio per issuer.

The Policy provides for an ad hoc Investment Committee consisting of the Director of Finance, the City Treasurer and one representative each from the Water Department, the Division of Aviation, and PGW. The Investment Committee meets quarterly with each of the investment managers to review each manager's performance to date and to plan for the next quarter. Investment managers are given any changes in investment instructions at these meetings. The Investment Committee approves all modifications to the Policy. The Investment Committee may from time to time review and revise the Policy and does from time to time approve temporary waivers of the restrictions on assets based on cash management needs and recommendations of investment managers.

Investment managers provide monthly compliance reports to the Investment Committee, which certify that the manager has received, read, and established control measures for ensuring compliance with the Policy, and that the applicable City accounts are in compliance with the Policy. Such reports must include instances of non-compliance, if any, and indicate corrective action taken, gains or losses, and the timeframe, to bring the account into compliance. The Investment Committee is in the process of enhancing its review of these monthly compliance reports to ensure adherence to the Policy.

The Policy expressly forbids the use of any derivative investment product as well as investments in any security whose yield or market value does not follow the normal swings in interest rates. Examples of these types of securities include, but are not limited to: structured notes, floating rate (excluding U.S. Treasury and U.S. agency floating rate securities) or inverse floating rate instruments, securities that could result in zero interest accrual if held to maturity, and mortgage derived interest and principal only strips. The City currently makes no investments in derivatives.

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DEBT OF THE CITY

General

Section 12 of Article IX of the Constitution of the Commonwealth provides that the authorized debt of the City "may be increased in such amount that the total debt of [the] City shall not exceed 13.5% of the average of the annual assessed valuations of the taxable realty therein, during the ten years immediately preceding the year in which such increase is made, but [the] City shall not increase its indebtedness to an amount exceeding 3.0% upon such average assessed valuation of realty, without the consent of the electors thereof at a public election held in such manner as shall be provided by law." The Supreme Court of Pennsylvania has held that bond authorizations once approved by the voters need not be reduced as a result of a subsequent decline in the average assessed value of City property. The general obligation debt subject to the limitation described in this paragraph is referred to herein as "Tax-Supported Debt."

The Constitution of the Commonwealth further provides that there shall be excluded from the computation of debt for purposes of the Constitutional debt limit, debt (herein called "Self-Supporting Debt") incurred for revenue-producing capital improvements that may reasonably be expected to yield revenue in excess of operating expenses sufficient to pay interest and sinking fund charges thereon. In the case of general obligation debt, the amount of such Self-Supporting Debt to be so excluded must be determined by the Court of Common Pleas of Philadelphia County upon petition by the City. Self-Supporting Debt is general obligation debt of the City, with the only distinction from Tax-Supported Debt being that it is not used in the calculation of the Constitutional debt limit. Self-Supporting Debt has no lien on any particular revenues.

For purposes of this Official Statement, Tax-Supported Debt and Self-Supporting Debt are referred to collectively as "General Obligation Debt." The term "General Fund-Supported Debt" is comprised of: (i) General Obligation Debt; and (ii) PAID, PMA, PPA, and PRA bonds, which are secured by agreements with the City to appropriate and pay amounts sufficient to pay principal, interest, or redemption price when due on the bonds.

Using the methodology described above, as of June 30, 2022, the Constitutional debt limitation for Tax-Supported Debt was approximately $14,163,023,723. The total amount of authorized debt applicable to the debt limit was $2,761,587,000, including $920,427,000 of authorized but unissued debt, leaving a legal debt margin of $11,754,050,723. Based on the foregoing figures, the calculation of the legal debt margin is as follows:

Table 40
General Obligation Debt Limit
As of June 30, 2022
(Amounts in Thousands of USD)

Authorized, issued and outstanding	$1,841,160
Authorized and unissued	920,427
Total	$2,761,587
Less: Self-Supporting Debt	($352,614)
Less: Serial bonds maturing within a year	0
Total amount of authorized debt applicable to debt limit	2,408,973
Legal debt limit	14,163,024
Legal debt margin	$11,754,051

As a result of the implementation of the City's AVI, the assessed value of taxable real estate within the City has increased substantially. See "REVENUES OF THE CITY – Real Property Taxes." The $14.163 billion Constitutional debt limit calculation includes nine years of property values certified under the City's AVI program, and one years of property values under the City's former property valuation process. Assuming no increase or decrease in property values used to calculate the Constitutional debt limit in Table 40, the Constitutional debt limit is estimated to be $17.387 billion by 2029.

The City is also empowered by statute to issue revenue bonds and, as of June 30, 2022, had outstanding $2,435,116,138 aggregate principal amount of Water and Wastewater Revenue Bonds ("Water and Wastewater Bonds"), $1,024,315,000 aggregate principal amount of Gas Works Revenue Bonds, and $1,547,710,000 aggregate principal amount of Airport Revenue Bonds. The City has also enacted ordinances authorizing the issuance of (i) up to $350 million aggregate principal amount in Airport Revenue Commercial Paper Notes for the Division of Aviation, (ii) up to $400 million of Airport Revenue Bonds to finance capital projects for the Division of Aviation (of which approximately $179.6 million has been issued), (iii) up to $270 million of Gas Works Revenue Notes to finance working capital and capital projects for PGW, (iv) up to $460 million of Gas Works Revenue Bonds to finance capital projects for PGW, of which approximately $203.2 million has been issued, (v) up to $400 million of Water and Wastewater Commercial Paper Notes for the Philadelphia Water Department, and (vi) up to $2.2 billion of Water and Wastewater Revenue Bonds for the Philadelphia Water Department, of which approximately $546.4 million has been issued. For information on recent and upcoming financings, see "OTHER FINANCING RELATED MATTERS – Recent and Upcoming Financings."

As of June 30, 2022, the principal amount of PICA Bonds outstanding was $10,870,000. The final maturity date for such PICA Bonds is June 15, 2023. For more information on PICA Bonds, see "– PICA Bonds" below.

Short-Term Debt

As provided in the PICA Act, the City's tax and revenue anticipation notes are general obligations of the City, but do not constitute debt of the City subject to the limitations of the Constitutional debt limit. The City did not issue any tax and revenue anticipation notes in Fiscal Years 2019 or 2020. In September 2020, the City issued $300 million in tax and revenue anticipation notes, which matured on June 30, 2021 and have been paid in full. The City did not issue tax and revenue anticipation notes in Fiscal Year 2022. The City does not expect to issue tax and revenue anticipation notes in Fiscal Year 2023 or Fiscal Year 2024. See "OTHER FINANCING RELATED MATTERS – Recent and Upcoming Financings" and "CITY CASH MANAGEMENT AND INVESTMENT POLICIES – General Fund Cash Flow."

Long-Term Debt

The following table presents a synopsis of the bonded debt of the City and its component units as of the date indicated. Of the total balance of the City's general obligation bonds issued and outstanding as of June 30, 2022, approximately 31% is scheduled to mature within five Fiscal Years and approximately 65% is scheduled to mature within ten Fiscal Years. When PICA's outstanding bonds are included with the City's general obligation bonds, approximately 65% is scheduled to mature within ten Fiscal Years.

Table 41
Bonded Debt
as of June 30, 2022
(Amounts in Thousands of USD)[1], [2]

General Obligation Debt and PICA Bonds				
General Obligation Bonds		$1,841,160		
PICA Bonds		10,870		
Subtotal: General Obligation Debt and PICA Bonds			**$1,852,030**	
Other General Fund-Supported Debt[3]				
Philadelphia Municipal Authority				
Juvenile Justice Center	$73,600			
Public Safety Campus	58,020			
Energy Conservation	5,950			
		$137,570		
Philadelphia Authority for Industrial Development				
Pension capital appreciation bonds	$104,869			
Pension fixed rate bonds	856,435			
Stadiums	183,995			
Library	2,285			
Cultural and Commercial Corridor	66,380			
One Parkway	16,630			
Affordable Housing	45,445			
400 N. Broad[4]	228,763			
Art Museum	8,885			
Rebuild	70,555			
		$1,584,242		
Philadelphia Parking Authority		7,605		
Philadelphia Redevelopment Authority		258,795		
Subtotal: Other General Fund-Supported Debt			**$1,988,212**	
Revenue Bonds				
Water Fund		$2,435,116		
Aviation Fund[5]		1,547,710		
Gas Works[5]		1,024,315		
Subtotal: Revenue Bonds			**$5,007,141**	
Grand Total				**$8,847,383**

(1) Unaudited; figures may not sum due to rounding.
(2) For tables setting forth a ten-year historical summary of Tax-Supported Debt of the City and the School District and the debt service requirements to maturity of the City's outstanding bonded indebtedness as of June 30, 2021, see the Fiscal Year 2021 ACFR.
(3) The principal amount outstanding relating to the PAID 1999 Pension Obligation Bonds, Series B (capital appreciation bonds) is reflected as the accreted value thereon as of June 30, 2022.
(4) Includes (i) sublease payments of approximately $15.2 million annually for the police headquarters renovation; and (ii) an assumption that the City issues approximately $200 million in bonds in 2026 to acquire the project at an assumed interest rate of 5% over the next 20 years.
(5) Does not include any outstanding commercial paper or short-term note issuances for the Division of Aviation, the Water Department, or PGW, as applicable.

Table 42
Annual Debt Service on General Fund-Supported Debt
(as of June 30, 2022)
(Amounts in Millions of USD)[1]

Fiscal Year	General Obligation Debt[2] Principal	Interest[3]	Total	Other General Fund-Supported Debt[4], [5] Principal	Interest[6], [7]	Total	Aggregate General Fund-Supported Debt Principal	Interest	Total
2023	$108.47	$80.26	$188.73	$132.01	$108.77	$240.79	$240.48	$189.03	$429.52
2024	113.38	75.16	188.54	146.33	111.30	257.63	259.71	186.45	446.17
2025	118.58	69.72	188.30	151.67	105.97	257.64	270.25	175.69	445.93
2026	116.58	64.25	180.83	168.25	88.55	256.80	284.83	152.80	437.63
2027	121.81	58.73	180.53	189.70	63.14	252.84	311.50	121.87	433.37
2028	127.90	53.02	180.92	199.70	56.04	255.74	327.60	109.06	436.66
2029	104.04	47.98	152.02	281.74	37.89	319.62	385.77	85.87	471.64
2030	121.06	43.17	164.23	74.19	27.60	101.79	195.25	70.77	266.01
2031	127.22	37.77	164.99	77.75	24.02	101.77	204.97	61.80	266.76
2032	132.98	32.09	165.07	38.12	20.86	58.98	171.10	52.94	224.04
2033	101.58	26.98	128.56	37.68	19.24	56.92	139.26	46.22	185.47
2034	91.43	22.80	114.22	53.75	17.58	71.33	145.17	40.38	185.55
2035	80.37	19.02	99.39	70.71	15.43	86.13	151.08	34.44	185.52
2036	84.03	15.35	99.37	35.89	12.68	48.56	119.91	28.03	147.94
2037	72.71	11.80	84.51	37.56	11.01	48.56	110.27	22.81	133.08
2038	76.04	8.55	84.59	39.31	9.25	48.55	115.35	17.80	133.15
2039	59.09	5.69	64.77	29.12	7.51	36.63	88.20	13.20	101.40
2040	26.83	3.37	30.19	20.56	6.26	26.81	47.38	9.62	57.00
2041	27.95	2.25	30.19	21.46	5.35	26.81	49.40	7.60	57.00
2042	29.16	1.04	30.20	22.40	4.40	26.80	51.55	5.45	57.00
2043	0.00	0.00	0.00	16.45	3.53	19.98	16.45	3.53	19.98
2044	0.00	0.00	0.00	17.26	2.72	19.98	17.26	2.72	19.98
2045	0.00	0.00	0.00	14.04	1.86	15.90	14.04	1.86	15.90
2046	0.00	0.00	0.00	14.76	1.14	15.90	14.76	1.14	15.90
2047	0.00	0.00	0.00	15.52	0.39	15.90	15.52	0.39	15.90
2048	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**$1,841.16**	**$679.01**	**$2,520.17**	**$1,905.86**	**$762.48**	**$2,668.34**	**$3,747.02**	**$1,441.48**	**$5,188.50**

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(1) Does not include letter of credit fees. Figures may not sum due to rounding.
(2) Includes both Tax-Supported Debt and Self-Supporting Debt. See "– General." Does not include PICA Bonds.
(3) Assumes interest rate on hedged variable rate bonds to be the associated fixed swap rate.
(4) Includes PAID, PMA, PPA, and PRA bonds, which are secured by agreements with the City to appropriate and pay amounts sufficient to pay principal, interest, or redemption price when due on such bonds, with capital appreciation bonds including only actual amounts payable. The original issuance amount of such capital appreciation bonds is included under the "Principal" column in the Fiscal Year such bonds mature and the full accretion amount at maturity less the original issuance amount is included in the "Interest" column in the Fiscal Year such bonds mature.
(5) Includes (i) sublease payments of approximately $15.2 million annually for the police headquarters renovation; and (ii) an assumption that the City issues approximately $200 million in bonds in 2026 to acquire the project at an assumed interest rate of 5% over the next 20 years.
(6) Assumes interest rate on hedged variable rate bonds to be the associated fixed swap rate.
(7) Net of capitalized interest.

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Other Long-Term Debt Related Obligations

The City has entered into other contracts and leases to support the issuance of debt by public authorities related to the City pursuant to which the City is required to budget and appropriate tax or other general revenues to satisfy such obligations, as shown in Table 41. The City budgets all other long-term debt-related obligations as a single budget item with the exception of PPA.

The Hospitals Authority and the State Public School Building Authority have issued bonds on behalf of the Community College of Philadelphia ("CCP"). Under the Community College Act (Pa. P.L. 103, No. 31 (1985)), each community college must have a local sponsor, which for CCP is the City. As the local sponsor, the City is obligated to pay up to 50% of the annual capital expenses of CCP, which includes debt service. The remaining 50% is paid by the Commonwealth. Additionally, the City annually appropriates funds for a portion of CCP's operating costs (less tuition and less the Commonwealth's payment). The amount paid by the City in Fiscal Year 2021 was $41.6 million. The budgeted amount and current estimate for Fiscal Year 2022 is $48.1 million. The budgeted amount for Fiscal Year 2023 is $50.1 million.

PICA Bonds

PICA has issued 11 series of bonds at the request of the City (the "PICA Bonds"). Under the PICA Act (both before and after the recent amendments thereto), PICA no longer has authority to issue bonds to finance cash flow deficits, but may refund bonds previously issued. The proceeds of the PICA Bonds were used to: (i) make grants to the City to fund its General Fund deficits, to fund all or a portion of the costs of certain City capital projects, to provide other financial assistance to the City to enhance operational productivity, and to defease certain of the City's general obligation bonds; (ii) refund other PICA Bonds; and (iii) pay costs of issuance.

On December 3, 2019, PICA issued $31,085,000 of its Series 2019 Special Tax Refunding Bonds (the "2019 PICA Bonds") to provide funds, together with other available funds, to defease certain of its PICA Bonds. On March 17, 2020, PICA issued $24,990,000 Series 2020 Special Tax Refunding Bonds (the "2020 PICA Bonds") to provide funds, together with other available funds, to defease certain of its PICA Bonds. Following the issuance of the 2019 PICA Bonds and 2020 PICA Bonds and the related defeasances, PICA has, as of June 30, 2022, $10,870,000 in PICA Bonds outstanding with a final maturity date of June 15, 2023.

The PICA Act authorizes the City to impose a tax for the sole and exclusive purposes of PICA. In connection with the adoption of the Fiscal Year 1992 budget and the execution of the PICA Agreement, as so authorized by the PICA Act, the City reduced the wage, earnings, and net profits taxes on City residents by 1.5% and enacted a new tax of 1.5% on wages, earnings, and net profits of City residents (the "PICA Tax"), which continues in effect. The PICA Tax secures the PICA Bonds.

Pursuant to recent amendments to the PICA Act, PICA may, at the request of the City, issue bonds on or after January 2, 2022, to finance capital projects and certain additional bonds issued in accordance with the timelines set forth therein. Further, the amendments to the PICA Act provide that the PICA Tax will continue to be authorized and dedicated for so long as PICA remains in existence (regardless of whether any PICA Bonds are outstanding). As amended, the PICA Act provides that PICA will remain in existence until the later of January 2, 2047 or one year after all its liabilities are met or, in the case of PICA Bonds, one year after provision for such payment shall have been made or provided for in the applicable bond indenture. The City expects to amend the PICA Agreement and the PICA Tax ordinance to extend their durations and update certain other provisions therein in order to reflect the amendments to the PICA Act.

At any time, the City is authorized to increase for its own use its various taxes, including its wage, earnings, and net profits taxes on City residents and could do so upon the expiration of the PICA Tax. Certain taxes, such as sales, liquor, and hotel taxes, among others, cannot be increased by the City without Commonwealth approval.

The PICA Tax is collected by the City's Department of Revenue, as agent of the State Treasurer, and deposited in the Pennsylvania Intergovernmental Cooperation Authority Tax Fund (the "PICA Tax Fund") of which the State Treasurer is custodian. The PICA Tax Fund is not subject to appropriation by City Council or the General Assembly. See "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – *Non-Mayoral-Appointed or Nominated Agencies* – PICA."

The PICA Act authorizes PICA to pledge the PICA Tax to secure its bonds and prohibits the Commonwealth and the City from repealing the PICA Tax or reducing its rate while PICA remains in existence. PICA Bonds are payable from PICA revenues, including the PICA Tax, pledged to secure PICA's bonds, the Bond Payment Account (as described below) and any debt service reserve fund established for such bonds and have no claim on any revenues of the Commonwealth or the City.

The PICA Act establishes a "Bond Payment Account" for PICA as a trust fund for the benefit of PICA bondholders and authorizes the creation of a debt service reserve fund for bonds issued by PICA. The State Treasurer is required to pay the proceeds of the PICA Tax held in the PICA Tax Fund directly to the Bond Payment Account. The proceeds of the PICA Tax in excess of amounts required for: (i) debt service; (ii) replenishment of any debt service reserve fund for bonds issued by PICA; and (iii) certain PICA operating expenses, are required to be deposited in a trust fund established exclusively to benefit the City and designated the "City Account." Amounts in the City Account are required to be remitted to the City not less often than monthly, unless PICA certifies the City's non-compliance with the then-current five-year financial plan.

The total amount of PICA Tax remitted by the State Treasurer to PICA (which is net of the costs of the State Treasurer in collecting the PICA Tax), PICA annual debt service and investment expenses, and net PICA tax revenue remitted to the City for Fiscal Years 2019-2021, the budgeted amounts and current estimates for Fiscal Year 2022, and the budgeted amounts for Fiscal Year 2023 are set forth below.

Table 43
Summary of PICA Tax Remitted by the State Treasurer to PICA and Net Taxes Remitted by PICA to the City (Amounts in Millions of USD)[1]

Fiscal Year	PICA Tax[2]	PICA Annual Debt Service and Expenses[2]	Net taxes remitted to the City[3]
2019 (Actual)	$528.7	$35.2	$493.6
2020 (Actual)	$534.4	$38.4	$495.9
2021 (Actual)	$524.2	$15.2	$509.0
2022 (Adopted Budget)	$527.9	$37.1	$490.8
2022 (Current Estimate)	$546.9	$37.1	$509.8
2023 (Adopted Budget)	$583.9	$23.0	$560.9

(1) Figures may not sum due to rounding.
(2) Source: The City's Quarterly City Manager's Reports or the budget for the applicable Fiscal Year.
(3) Source: For Fiscal Years 2019-2021, the City's ACFRs for such Fiscal Years. For Fiscal Year 2022, the Fiscal Year 2022 Adopted Budget and the FY 2022 Third Quarter QCMR, as applicable. For Fiscal Year 2023, the Fiscal Year 2023 Adopted Budget.

OTHER FINANCING RELATED MATTERS

Swap Information

The City is a party to various swaps related to its outstanding General Fund-Supported Debt as detailed in the table below.

Table 44
Summary of Swap Information for General Fund-Supported Debt (as of June 30, 2022)

City Entity	City GO	City Lease PAID	City Lease PAID
Related Bond Series	2009B(1)	2007B-2 (Stadium)(3)	2007B-2 (Stadium)(4)
Initial Notional Amount	$313,505,000	$217,275,000	$72,400,000
Current Notional Amount	$100,000,000	$43,170,499	$14,384,501
Termination Date	8/1/2031	10/1/2030	10/1/2030
Product	Fixed Payer Swap	Fixed Payer Swap	Fixed Payer Swap
Rate Paid by Dealer	SIFMA	SIFMA	SIFMA
Rate Paid by City Entity	3.829%	3.9713%	3.9713%
Dealer	Royal Bank of Canada	JPMorgan Chase Bank, N.A.	Merrill Lynch Capital Services, Inc.
Fair Value(2)	($9,890,486)	($3,133,546)	($1,044,563)
Additional Termination Events	For Dealer: Rating change below BBB- or Baa3 For City: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)

(1) On July 28, 2009, the City terminated a portion of the swap in the amount of $213,505,000 in conjunction with the refunding of its Series 2007B bonds with the Series 2009A fixed rate bonds and the Series 2009B variable rate bonds. The City made a termination payment of $15,450,000.

(2) Fair values are as of June 30, 2022, and are shown from the City's perspective and include accrued interest.

(3) On July 15, 2014, PAID terminated a portion of the swap in the amount of $41,555,000 in conjunction with the refunding of a portion of its Series 2007B bonds with the Series 2014B fixed rate bonds. PAID made a termination payment of $4,171,000 to JPMorgan. On September 11, 2019, PAID terminated a portion of the swap in the amount of $33,455,654 in conjunction with the refunding of a portion of its Series 2007B bonds with the Series 2019 fixed rate bonds. PAID made a termination payment of $6,051,000 to JPMorgan.

(4) On July 15, 2014, PAID terminated a portion of the swap in the amount of $13,840,000 in conjunction with the refunding of a portion of its Series 2007B bonds with the Series 2014B fixed rate bonds. PAID made a termination payment of $1,391,800 to Merrill Lynch. On September 11, 2019, PAID terminated a portion of the swap in the amount of $11,149,346 in conjunction with the refunding of a portion of its Series 2007B bonds with the Series 2019 fixed rate bonds. PAID made a termination payment of $1,998,000 to Merrill Lynch.

While the City is party to several interest rate swap agreements, for which there is General Fund exposure and on which the swaps currently have a negative mark against the City, the City has no obligation to post collateral on these swaps while the City's underlying ratings are investment grade.

For more information related to certain swaps entered into in connection with revenue bonds issued for PGW, the Water Department, and the Division of Aviation, see the Fiscal Year 2021 ACFR. In addition, PICA has entered into swaps, which are detailed in the Fiscal Year 2021 ACFR.

Swap Policy

The City has adopted a swap policy for the use of swaps, caps, floors, collars and other derivative financial products (collectively, "swaps") in conjunction with the City's debt management. The swap program managed by the City includes swaps related to the City's general obligation bonds, tax-supported service contract debt issued by related authorities, debt of the Water Department, Division of Aviation, and debt of PGW. Swaps related to debt of the PICA, the School District, and the PPA are managed by those governmental entities, respectively.

The Director of Finance has overall responsibility for entering into swaps. Day-to-day management of swaps is the responsibility of the City Treasurer, and the Executive Director of the Sinking Fund Commission is responsible for making swap payments. The Office of the City Treasurer and the City Solicitor's Office coordinate their activities to ensure that all swaps that are entered into are in compliance with applicable federal, state, and local laws.

The swap policy addresses the circumstances when swaps can be used, the risks that need to be evaluated prior to entering into swaps and on an ongoing basis after swaps have been executed, the guidelines to be employed when swaps are used, and how swap counterparties will be chosen. The swap policy is used in conjunction with the City's Debt Management Policy, reviewed annually, and updated as needed.

Under the swap policy, permitted uses of swaps include: (i) managing the City's exposure to floating interest rates through interest rate swaps, caps, floors and collars; (ii) locking in fixed rates in current markets for use at a later date through the use of forward starting swaps and rate locks; (iii) reducing the cost of fixed or floating rate debt through swaps and related products to create "synthetic" fixed or floating rate debt; and (iv) managing the City's credit exposure to financial institutions and other entities through the use of offsetting swaps.

Since swaps can create exposure to the creditworthiness of financial institutions that serve as the City's counterparties on swap transactions, the City has established standards for swap counterparties. As a general rule, the City enters into transactions with counterparties whose obligations are rated in the A rated category or better from two nationally recognized rating agencies. If counterparty's credit rating is below the double-A rating category, the swap policy requires that the City's exposure be collateralized. If a counterparty's credit is downgraded below the A category, even with collateralization, the swap policy requires a provision in the swap permitting the City to exercise a right to terminate the transaction prior to its scheduled termination date.

Letter of Credit Agreements

The City has entered into various letter of credit agreements related to its General Fund-Supported Debt as detailed in the table below. Under the terms of such letter of credit agreements, following a purchase of the applicable bonds, the City may be required to amortize such bonds more quickly than as originally scheduled at issuance.

Table 45
Summary of Letter of Credit Agreements
for General Fund-Supported Debt
as of June 30, 2022

Variable Rate Bond Series	Amount Outstanding	Bond Maturity Date	Provider	Expiration Date	Rating Thresholds [1]
General Obligation Multi-Modal Refunding Bonds, Series 2009B	$100,000,000	August 1, 2031	Barclays Bank PLC	May 24, 2023	The long-term rating assigned by any one of the rating agencies to any unenhanced long-term parity debt of the City is (i) withdrawn or suspended for credit-related reasons or (ii) reduced below investment grade.
PAID Multi-Modal Lease Revenue Refunding Bonds, Series 2007B-2	$ 57,555,00	October 1, 2030	TD Bank	May 29, 2024	The long-term ratings assigned by at least two of the rating agencies to any unenhanced general obligation bonds of the City is (i) withdrawn or suspended for credit-related reasons, or (ii) reduced below investment grade.

[1] The occurrence of a Rating Threshold event would result in an event of default under the reimbursement agreement with the related bank.

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Recent and Upcoming Financings

Recent Financings. The following is a list of financings that the City has entered into in Fiscal Year 2022.

- In October 2021, PRA issued $98,560,000 in City Service Agreement Revenue Bonds.
- In October 2021, the City issued $231,930,000 in Water and Wastewater Revenue Bonds.
- In August 2021, the City issued $426,800,000 in General Obligation and General Obligation Refunding Bonds.
- In July 2021, the City issued $302,040,000 in Airport Revenue and Refunding Bonds.

Upcoming Financings. In addition to the financing contemplated by this Official Statement, the following is a list of financings that the City expects to enter into in the next six to eight months.

- In the summer of 2022, the City expects to issue approximately $315 million Water and Wastewater Revenue Bonds.
- In early 2023, PEA expects to issue approximately $90 million in City Service Agreement Revenue Bonds for the benefit of the City.
- In early 2023, PAID expects to issue approximately $85 million in City Service Agreement Revenue Bonds for the benefit of the City.

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CITY CAPITAL PROGRAM

As part of the annual budget process, the Mayor submits for approval a six-year capital program to City Council, together with the proposed operating budget. For more information on the City's budget process, see "DISCUSSION OF FINANCIAL OPERATIONS – Budget Procedure."

Certain Historical Capital Expenditures

Table 46 shows the City's historical expenditures for Fiscal Years 2018-2022 for certain capital purposes, including expenditures for projects related to transit, streets and sanitation, municipal buildings, recreation, parks, museums, and stadia, and economic and community development. The source of funds used for such expenditures are primarily general obligation bond proceeds, but also include federal, state, private, and other government funds and operating revenue. Figures in the table below are generated after the Fiscal Year closes and may not sum due to rounding.

Table 46
Historical Expenditures for Certain Capital Purposes
Fiscal Years 2018-2022

Purpose Category	2018	2019	2020	2021	2022
Transit	$ 7,284,978	$ 7,511,909	$ 2,118,190	$ 275,524	$ 7,391,397
Streets & Sanitation	27,626,173	51,724,238	55,819,152	74,069,852	49,505,218
Municipal Buildings	75,096,668	76,886,156	113,997,857	88,706,617	89,560,752
Recreation, Parks, Museums & Stadia	61,839,958	42,098,687	23,488,384	28,727,639	26,443,401
Economic & Community Development	18,288,380	17,060,541	19,160,053	10,219,384	12,952,262
Total	**$190,136,157**	**$195,281,531**	**$214,583,636**	**$201,999,016**	**$185,853,030**

Table 47 shows the City's historical expenditures for Fiscal Years 2018-2022 for certain capital purposes from general obligation bond proceeds only and the percentage of the total costs covered by such proceeds in such Fiscal Years. Figures in the table below are generated after the Fiscal Year closes and may not sum due to rounding.

Table 47
Historical Expenditures for Certain Capital Purposes
(General Obligation Bond Proceeds Only)
Fiscal Years 2018-2022

Purpose Category	2018	2019	2020	2021	2022
Transit	$ 7,227,880	$ 7,509,010	$ 2,115,963	$ 274,336	$ 7,391,397
Streets & Sanitation	19,601,019	27,508,365	30,392,324	27,389,047	20,984,230
Municipal Buildings	70,850,458	70,306,949	86,218,008	60,609,517	62,468,532
Recreation, Parks, Museums & Stadia	54,534,870	35,427,491	10,870,133	23,396,808	21,981,840
Economic & Community Development	18,288,380	17,060,541	19,160,053	9,934,028	11,301,908
Total	**$170,502,607**	**$157,812,356**	**$148,756,480**	**$121,603,736**	**$124,127,907**
Percentage of Total Costs	**90%**	**81%**	**69%**	**60%**	**67%**

Fiscal Year 2023-2028 Adopted Capital Program

The Fiscal Year 2023-2028 Adopted Capital Program contemplates a total budget of $11.06 billion (compared to $9.47 billion as budgeted in the Fiscal Year 2022-2027 Adopted Capital Program). In the Fiscal Year 2023-2028 Adopted Capital Program, approximately $3.96 billion is expected to be provided from federal, Commonwealth, and other sources and approximately $7.10 billion through City funding. For Fiscal Year 2023, the City has budgeted $3.86 billion for capital projects (compared to $3.26 billion in Fiscal Year 2022). The following table shows the amounts budgeted each year from various sources of funds for capital projects in the Fiscal Year 2023-2028 Adopted Capital Program.

Table 48
Fiscal Year 2023-2028 Adopted Capital Program
(Amounts in Thousands of USD)

Funding Source	2023	2024	2025	2026	2027	2028	2023-2028
City Funds--Tax Supported							
Carried-Forward Loans	539,978	-	-	-	-	-	539,978
Operating Revenue	258,716	11,250	11,250	11,250	11,250	750	304,466
New Loans	202,835	179,296	178,760	177,656	177,973	178,096	1,094,616
Prefinanced Loans	3,491	-	-	-	-	-	3,491
PICA Prefinanced Loans	17,178	-	-	-	-	-	17,178
Tax Supported Subtotal	**$1,022,198**	**$190,546**	**$190,010**	**$188,906**	**$189,223**	**$178,846**	**$1,959,729**
City Funds--Self Sustaining							
Self-Sustaining Carried Forward Loans	586,755	-	-	-	-	-	586,755
Self-Sustaining Operating Revenue	158,303	47,981	49,946	56,585	56,714	56,733	426,262
Self-Sustaining New Loans	680,374	707,654	702,524	864,923	619,312	551,799	4,126,586
Self-Sustaining Subtotal	**$1,425,432**	**$755,635**	**$752,470**	**$921,508**	**$676,026**	**$608,532**	**$5,139,603**
Other City Funds							
Revolving Funds	30,000	17,500	17,500	17,500	17,500	-	100,000
Other Than City Funds							
Carried-Forward Other Government	33,206	-	-	-	-	-	33,206
Other Government Off Budget	974	1,498	1,628	1,540	1,438	1,354	8,432
Other Governments/Agencies	3,100	100	100	100	100	100	3,600
Carried-Forward State	277,641	-	-	-	-	-	277,641
State Off Budget	175,165	190,914	199,118	199,590	204,943	207,612	1,177,342
State	49,345	51,104	47,147	47,103	61,147	54,626	310,472
Carried-Forward Private	110,667	-	-	-	-	-	110,667
Private	13,470	7,080	5,949	5,784	4,131	4,057	40,471
Carried-Forward Federal	485,908	-	-	-	-	-	485,908
Federal Off-Budget	117,240	106,454	134,466	125,843	101,042	107,734	692,779
Federal	116,055	138,670	102,725	101,906	129,148	127,945	716,449
Other Than City Funds Subtotal	**$1,382,771**	**$495,820**	**$491,133**	**$481,866**	**$501,949**	**$503,428**	**$3,856,967**
TOTAL	**$3,860,401**	**$1,459,501**	**$1,451,113**	**$1,609,780**	**$1,384,698**	**$1,290,806**	**$11,056,299**

LITIGATION

Generally, judgments and settlements on claims against the City are payable from the General Fund, except for claims against the Water Department, the Division of Aviation, and PGW, which are paid out of their respective funds or revenues and only secondarily out of the General Fund.

The Act of October 5, 1980, P.L. 693, No. 142, known as the "Political Subdivision Tort Claims Act," (the "Tort Claims Act") establishes a $500,000 aggregate limitation on damages for injury to a person or property arising from the same cause of action or transaction or occurrence or series of causes of action, transactions or occurrences with respect to governmental units in the Commonwealth such as the City. The constitutionality of that aggregate limitation on damages has been upheld by the Pennsylvania appellate courts, including in the recent decision of the Supreme Court of Pennsylvania in *Zauflik v. Pennsbury School District*, 104 A.3d 1096 (Pa. 2014). Under Pennsylvania Rule of Civil Procedure 238, delay damages are not subject to the $500,000 limitation. The limit on damages is inapplicable to any suit against the City that does not arise under state tort law, such as claims made against the City under federal civil rights laws.

General Fund

The following table presents the City's aggregate losses from settlements and judgments paid out of the General Fund for Fiscal Years 2019-2021 and the budgeted amounts for Fiscal Year 2022 and Fiscal Year 2023.

Table 49
Aggregate Losses – General and Special Litigation Claims (General Fund)
Fiscal Years 2019-2021 (Actual) and 2022-2023 (Budget)
(Amounts in Millions of USD)

	Actual 2019	Actual 2020	Actual 2021	Budget 2022	Budget 2023
Aggregate Losses	$45.3	$47.7	$47.7	$49.2	$67.3

Sources: The City, Philadelphia Budget Office – Budget Bureau, Indemnity Account, Status Reports.

The current estimate of settlements and judgments from the General Fund for Fiscal Year 2022 is $49.2 million. Such estimate is based on internal calculations using (i) the "Possible Costs" listed in its Quarterly Litigation Reports, (ii) the 3-year average cost for closed cases, and (iii) current year-to-date spending reports. Current year spending includes payments made for settled cases pursuant to payment plans over multiple years. Such payments are generally made at the start of a Fiscal Year, which can result in the current estimate being skewed higher during the early part of such Fiscal Year.

In budgeting for settlements and judgments in the annual operating budget and projecting settlements and judgments for each five-year plan, the City bases its estimates on past experience and on an analysis of estimated potential liabilities and the timing of outcomes, to the extent a proceeding is sufficiently advanced to permit a projection of the timing of a result. General and special litigation claims are budgeted separately from back-pay awards and similar settlements relating to labor disputes. Usually, some of the costs arising from labor litigation are reported as part of current payroll expenses.

In addition to routine litigation incidental to performance of the City's governmental functions and litigation arising in the ordinary course relating to contract and tort claims and alleged violations of law, certain special litigation matters are currently being litigated and/or appealed and adverse final outcomes of such litigation could have a substantial or long-term adverse effect on the General Fund. These proceedings involve: (i) environmental-related actions and proceedings in which it has been or may be alleged that the City is liable for damages, including but not limited to property damage and bodily injury, or that the City should pay fines or penalties or the costs of response or remediation, because of the alleged generation, transport, or disposal of toxic or otherwise hazardous substances by the City, or the alleged disposal of such substances on or to City-owned property; (ii) contract disputes and other commercial litigation; (iii) union arbitrations and other employment-related litigation; (iv) potential and certified class action suits; and (v) civil rights litigation. The ultimate outcome and fiscal impact, if any, on the General Fund of the claims and proceedings described in this paragraph are not currently predictable. See Note IV.8 to the Fiscal Year 2021 ACFR, "Contingencies – Primary Government – Claims and Litigation."

In addition, see "REVENUES OF THE CITY – Real Property Taxes" for a discussion of litigation relating to the reassessment of commercial property in tax year 2018.

Water Fund

Various claims have been asserted against the Water Department and in some cases lawsuits have been instituted. Many of these Water Department claims have been reduced to judgment or otherwise settled in a manner requiring payment by the Water Department. The following table presents the Water Department's aggregate losses from settlements and judgments paid out of the Water Fund for Fiscal Years 2019-2021 and the budgeted amounts for Fiscal Year 2022 and Fiscal Year 2023. The current estimate for Fiscal Year 2022 is $6.0 million. The Water Fund is the first source of payment for any of the claims against the Water Department.

Table 50
Aggregate Losses – General and Special Litigation Claims (Water Fund)
Fiscal Years 2019-2021 (Actual) and 2022-2023 (Budget)
(Amounts in Millions of USD)

	Actual 2019	Actual 2020	Actual 2021	Budget 2022	Budget 2023
Aggregate Losses	$3.3	$3.9	$2.5	$6.0	$6.0

Sources: The City, Philadelphia Budget Office – Budget Bureau, Indemnity Account, Status Reports.

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Aviation Fund

Various claims have been asserted against the Division of Aviation and in some cases lawsuits have been instituted. Many of these Division of Aviation claims have been reduced to judgment or otherwise settled in a manner requiring payment by the Division of Aviation. The following table presents the Division of Aviation's aggregate losses from settlements and judgments paid out of the Aviation Fund for Fiscal Years 2019-2021 and the budgeted amounts for Fiscal Year 2022 and Fiscal Year 2023. The current estimate for Fiscal Year 2022 is $2.5 million. The Aviation Fund is the first source of payment for any of the claims against the Division of Aviation.

Table 51
Aggregate Losses – General and Special Litigation Claims (Aviation Fund)
Fiscal Years 2019-2021 (Actual) and 2022-2023 (Budget)
(Amounts in Millions of USD)

	Actual 2019	Actual 2020	Actual 2021	Budget 2022	Budget 2023
Aggregate Losses	$1.7	$1.3	$1.2	$2.5	$2.5

Sources: The City, Philadelphia Budget Office – Budget Bureau, Indemnity Account, Status Reports.

PGW

Various claims have been asserted against PGW and in some cases lawsuits have been instituted. Many of these PGW claims have been reduced to judgment or otherwise settled in a manner requiring payment by PGW. The following table presents PGW's settlements and judgments paid out of PGW revenues, with accompanying reserve information, in PGW Fiscal Years 2016 through 2020. PGW revenues are the first source of payment for any of the claims against PGW. PGW currently estimates approximately $4.6 million and $3.5 million in settlements and judgments for PGW Fiscal Years 2022 and 2023, respectively.

Table 52
Claims and Settlement Activity (PGW)
PGW Fiscal Years 2017-2023
(Amounts in Thousands of USD)

Fiscal Year (ending August 31)	Beginning of Year Reserve	Current Year Claims and Adjustments	Claims Settled	End of Year Reserve	Current Liability Amount (due within one year)
2017	$10,493	$6,681	($2,797)	$14,377	$4,627
2018	$14,377	$2,910	($3,223)	$14,064	$6,100
2019	$14,064	($1,582)	($2,922)	$9,560	$3,925
2020	$9,560	$1,973	($2,091)	$9,442	$5,435
2021	$9,442	$2,384	($1,845)	$9,981	$4,584
2022(1)	$9,981	$2,698	($4,556)	$8,123	$3,455
2023(2)	$8,123	$2,820	($3.455)	$7,488	$3,236

Sources: For fiscal years ended August 31, 2017 through August 31, 2021, PGW's audited financial statements.

(1) Estimated Period – September 1, 2021 through August 31, 2022.
(2) Budget Period – September 1, 2022 through August 31, 2023.

APPENDIX IV

CITY OF PHILADELPHIA SOCIOECONOMIC INFORMATION

The Bonds are payable solely from Project Revenues and monies deposited in the water and wastewater funds. The Bonds are special 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. This APPENDIX IV is included for purposes of providing general socioeconomic information regarding the City.

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COVID-19

This APPENDIX IV includes historical demographic and socioeconomic information regarding the City of Philadelphia (the "City" or "Philadelphia"), much of which describes periods of time prior to the outbreak of the COVID-19 pandemic. The reader is cautioned that this APPENDIX IV does not fully reflect the impact of COVID-19 on the City's demographic and socioeconomic conditions; nor does it address the impact of any related government, business, or policy initiatives. As such, historical and certain current data points and trends included in this APPENDIX IV should be viewed in such context.

The City has taken various emergency measures and other actions to respond to the spread of COVID-19 in the City. While the City continues to closely monitor and assess the effects of the COVID-19 pandemic and its impact on the City's financial position and operations, COVID-19 continues to have an impact on the City's demographic and socioeconomic conditions. While economic recovery in the City continues, there remain significant uncertainties and risks to certain of the City's economic sectors and industries.

It is likely that the impact of COVID-19 on the City, its economy and financial position, and its demographic and socioeconomic conditions will continue to change as circumstances and events evolve. The duration, severity, and degree of the impact of COVID-19 are extremely difficult to predict at this time due to the dynamic nature of the outbreak, which could include subsequent outbreaks or surges in cases due to any COVID-19 variants. The City believes that it may be some time before it is able to determine the full impact of the various events surrounding COVID-19 and the pace of post-pandemic recovery.

For more information on the City's response to COVID-19 and the related financial impact on the City, see the forepart of this Official Statement and "INTRODUCTION – COVID-19 Response" and APPENDIX III – "OVERVIEW – Fiscal Health of the City – COVID-19."

INTRODUCTION

The City is the sixth largest city in the nation by population, and is at the center of the United States' seventh largest metropolitan statistical area, according to 2021 estimates. The Philadelphia MSA (further described below) includes a substantial retail sales market, as well as a diverse network of business suppliers and complementary industries. Some of the City's top priorities include growing quality jobs, increasing educational attainment and employment skills among Philadelphians, equitable neighborhood revitalization, promoting Philadelphia as a desirable location for business, and fostering inclusive growth.

According to the 2020 U.S. Census, the City increased its population by 4.9% to 1.6 million residents in the ten years from 2011 to 2020. The City's population in the prior decade increased modestly (0.7%) to 1.53 million residents during 2001 to 2010, ending six decades of population decline. Given the City's strategic geographical location, relative affordability, diversified economy, cultural and recreational amenities, and its growing strength in key industries, Philadelphia is well-positioned to attract new businesses and investment over the coming years to further spur growth and development in the City. For more information on the fiscal strategies of the City and related challenges, see APPENDIX III – "OVERVIEW – Fiscal Health of the City – COVID-19."

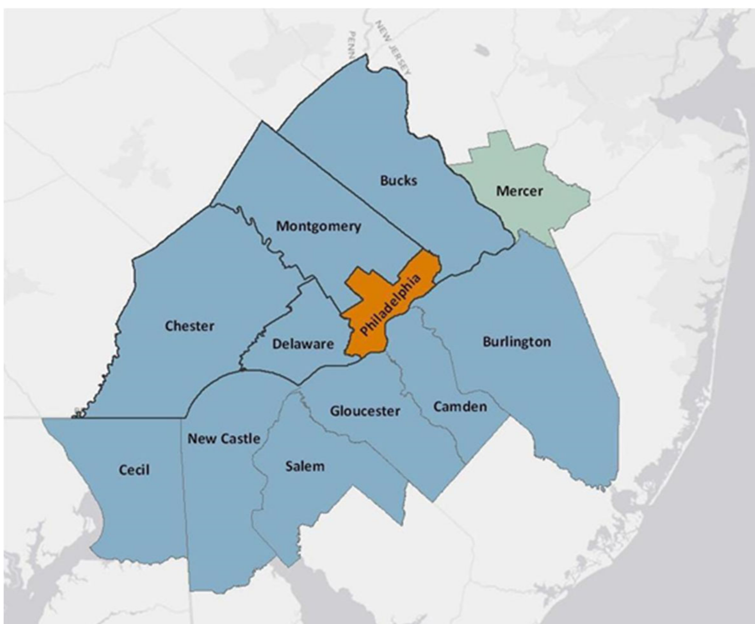
Geography

The City has an area of approximately 134 square miles, and is located along the southeastern border of the Commonwealth of Pennsylvania (the "Commonwealth"), at the confluence of the Delaware and Schuylkill Rivers. The City, highlighted in orange in Figure 1, lies at the geographical and economic center of the MSA and PMSA (described below). Philadelphia is both the largest city and the only city of the first class in the Commonwealth, and is coterminous with the County of Philadelphia.

Philadelphia Metropolitan Statistical Area (the "MSA"), highlighted in blue in Figure 1, is the eleven-county area named the Philadelphia-Camden-Wilmington metropolitan statistical area, representing an area of approximately 5,118 square miles with approximately 6,228,601 residents according to 2021 estimates by the U.S. Census Bureau.[1]

Philadelphia Primary Metropolitan Statistical Area (the "PMSA"), highlighted with bold black outlines, in Figure 1, is a five-county area within the MSA that lies in the Commonwealth and is sometimes called the Philadelphia Metropolitan Division. The counties of Bucks, Chester, Delaware, and Montgomery are referred to as the Suburban PMSA herein.

Figure 1
Map of Philadelphia Region including the MSA, PMSA, and Mercer County, NJ



Source: 2009 TIGER County Shapefiles

[1] Due to its close proximity and impact on the region's economy, Mercer County, New Jersey, highlighted in green in Figure 1, is included in the MSA by many regional agencies, although it is not included in the area defined by the U.S. Office of Management and Budget.

Strategic Location

Philadelphia is at the center of the third largest MSA on the East Coast, and is served by a robust transportation infrastructure, including: the Philadelphia International Airport, Amtrak's Northeast Corridor rail service, major interstate highway access, regional train service provided by Southeastern Pennsylvania Transportation Authority ("SEPTA") and New Jersey's PATCO (as defined herein), and the Port of Philadelphia. Due to the transportation infrastructure centered in the City, Philadelphia is accessible to regional and international markets, and is within a day's drive of 50% of the nation's population. Philadelphia's central location along the East Coast, an hour from New York City and less than two hours from Washington, D.C. by high-speed rail, also allows for convenient access to these significant economic centers.

Population and Demographics

According to the 2020 U.S. Census, the City increased its population by 4.9% to 1,603,797 residents in the ten years from 2011 to 2020. From July 2020 to July 2021, it is estimated that the City lost 24,754 residents, dropping the City's population to 1,576,521. The decrease, which many U.S. counties and metro areas experienced, can be attributed in part to migration loss, as well as increased mortality intensified by the COVID-19 pandemic. Despite such decline, the City held its spot as the nation's sixth most populous city based on 2021 estimates. In the 2010 U.S. Census, the City experienced its first population gain in 60 years. The City's population reached its nadir in 2006 with 1.45 million residents. Philadelphia's population has increased by 115,087 residents from 2006 – 2020, or by 7.73%. Based on data from the 2020 U.S. Census, the City's population growth over the last decade has outpaced both the MSA and the Commonwealth. See Table 1.

In 2020, 19.1% of Philadelphia's population was comprised of "millennials," or those within the 25 to 39 year-old age bracket. This demographic group tends to be better educated than the City's and the nation's adult population as a whole. The City's many universities, diverse employment opportunities, and relative affordability are likely reasons for Philadelphia's large millennial population.

Philadelphia is also a highly diverse city in terms of race and ethnicity. In 2020, 41.4% of the population identified as Black or African American, 39.3% identified as white, 7.4% identified as Asian, and 7.3% identified as some other race. Additionally, 15.1% of the population identified as Hispanic or Latino/a.

Table 1
Population: City, MSA, Pennsylvania & Nation

	1990	2000	2010	2020	Percent Change 2000 - 2010	Percent Change 2010 - 2020
Philadelphia	1,585,577	1,517,550	1,528,427	1,603,797	0.7%	4.9%
Philadelphia-Camden-Wilmington MSA	5,435,468	5,687,147	5,972,049	6,245,051	5.0%	4.6%
Pennsylvania	11,881,643	12,281,054	12,712,343	12,964,056	3.5%	2.0%
United States	248,709,873	281,421,906	309,348,193	331,893,745	9.9%	7.3%

Source: U.S. Census Bureau, Population Estimates, Census 2020, Census 2010, Census 2000, Census 1990.

In 2020, Philadelphia exceeded many selected peer cities in its share of students who are enrolled in an undergraduate, graduate or professional education program. Selected peer cities (as shown in Table 2) reflect characteristics consistent with Philadelphia, such as geography, socio-economic statistics, industrial legacies, or port facilities. Among these cities, Philadelphia had the fifth highest percentage of its population enrolled in higher education and the fifth largest higher education population.

Table 2
2020 Total Number of Students, as a Percent of Total Population of Selected Cities, Ranked by Total Number of Students Enrolled in Higher Education

City	Total Number of Students Enrolled in School (all years)	Total Number of Students Enrolled in Higher Education	Percent of All Students Enrolled in Higher Education	Percent of Total Population Enrolled in Higher Education
United States	**80,497,960**	**22,229,106**	**27.6%**	**7.1%**
Los Angeles, CA	994,859	348,028	35.0%	9.1%
Chicago, IL	643,490	209,940	32.6%	8.1%
Houston, TX	595,484	160,260	26.9%	7.3%
San Diego, CA	366,582	150,144	41.0%	9.4%
Philadelphia, PA	**396,289**	**132,022**	**33.3%**	**9.0%**
San Antonio, TX	410,917	112,502	27.4%	7.4%
Boston, MA	193,900	107,654	55.5%	7.9%
Phoenix, AZ	424,005	98,429	23.2%	14.7%
Washington, D.C.	168,035	71,793	42.7%	10.6%
Baltimore, MD	146,904	51,775	35.2%	8.0%
Milwaukee, WI	168,692	47,522	28.2%	8.4%
Memphis, TN	159,496	40,604	25.5%	6.5%
Detroit, MI	166,492	38,283	23.0%	6.6%
Cleveland, OH	92,313	25,875	28.0%	7.0%

Source: 2020 American Community Survey, 5-Year Estimates.

ECONOMIC BASE AND EMPLOYMENT

The Philadelphia Economy

The City's economy is composed of diverse industries, with virtually all classes of industrial and commercial businesses represented. The City is a major regional business and personal services center with strengths in insurance, law, finance, health, education, utilities, and the arts. The City also provides a destination for entertainment, arts, dining and sports for residents of the suburban counties, as well as for those residents of the counties comprising the MSA plus Mercer County, New Jersey.

As shown in Table 10, the cost of living in the City is relatively moderate and affordable compared to other major metropolitan areas along the East Coast. The City, as the commercial center of an MSA of 6.2 million people, offers its business community access to a large, diverse, and industrious labor pool. As one of the country's education centers, these businesses also enjoy access to a large pool of recent graduates from the institutions of higher education in the MSA.

Key Industries

Table 3 provides location quotients for Philadelphia's most concentrated industry sectors. Location quotients quantify how concentrated a particular industry is in a region as compared to a base reference area, usually the nation. A location quotient greater than 1.00 indicates an industry with a greater share of the local area employment than is the case in the reference area.

As shown in Table 3, compared to the nation, Philadelphia County has higher concentrations in six sectors: 1. Educational Services; 2. Health Care and Social Assistance; 3. Professional and Technical Services; 4. Other Services, Except Public Administration; 5. Arts, Entertainment, and Recreation; and 6. Management of Companies and Enterprises.[2] Of these six sectors, the City has a higher concentration of employment than the Commonwealth in five sectors: Educational Services; Health Care and Social Assistance; Professional and Technical Services; Other Services, Except Public Administration; and Arts, Entertainment and Recreation.

Table 3

Ratio of Philadelphia County and Pennsylvania Industry Concentrations Compared to the United States

Industry	Philadelphia County to the US	Pennsylvania to the US
Educational Services	4.27	1.56
Health Care and Social Assistance	1.83	1.29
Professional and Technical Services	1.24	0.95
Other Services, Except Public Administration	1.15	1.13
Arts, Entertainment, and Recreation	1.14	1.07
Management of Companies and Enterprises	1.08	1.50
Finance and Insurance	0.99	1.09
Transportation and Warehousing	0.89	1.20

Source: Bureau of Labor Statistics: September 2021 Employment Location Quotient, Quarterly Census of Employment and Wages

The concentration of Educational Services not only provides stable support to the local economy, but also generates a steady and educated workforce, fueling the City's professional services and healthcare industries.

The City is also capitalizing on the region's assets to become a leader in research generated by life sciences and educational institutions. Several sites now foster life science incubator facilities, including The Cambridge Innovation Center, 401N. Broad, The Curtis Center, Schuylkill Yards, The Wistar Institute, University of Pennsylvania ("Penn"), and Drexel University. Wexford has several million square feet of Life Sciences space in various stages of development in University City. Additionally, several other developers are actively developing lab space in West Philadelphia.

[2] The Bureau of Labor Statistics ("BLS") defines the "Other Services" (except Public Administration) sector as establishments engaged in providing services not specifically provided for elsewhere in the BLS classification system, such as equipment and machinery repairing, promoting or administering religious activities, grant making, advocacy, providing dry cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

Over the last few years, there has been a significant geographic shift in lab development. Prior to 2020, lab space was almost exclusively relegated to University City and the Navy Yard, now there are planned developments in other areas of the City, including Gray's Ferry, Allegheny West, Kensington, and South Philadelphia. These developments accommodate all stages of Life Science company growth. With several million square feet of lab space in development and an approximate vacancy rate of 14% (compared to 1.4% in 2019), there is potential for future growth.

Employment

Table 4 shows non-farm payroll employment in the City over the last decade by industry sectors. In the past 10 years, growth has occurred in Mining, Logging, and Construction; Professional and Business Services; Education and Health Services; Financial Activities; and Information. These sectors provide stability to the City's overall economy. The Leisure and Hospitality sector historically demonstrated strong growth until contracting in 2020. Such contraction can be attributed to the COVID-19 pandemic and is expected to rebound in a post-pandemic environment. Overall, as of April 2022, employer demand remains strong in the City.

Table 4
Philadelphia Non-Farm Payroll Employment[(1)]
(Amounts in Thousands)

Sector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% Change 2012-2021
Leisure and hospitality	63.2	64.8	66.9	68.5	70.8	73.1	74.3	76.7	48.6	55.0	-13.0%
Mining, logging, and construction	10.2	10.4	11.0	11.5	12.0	12.1	12.6	12.5	11.8	11.7	14.7%
Professional and business services	84.4	86.7	88.6	91.2	95.2	97.4	99.6	103.9	100.2	102.2	21.1%
Education and health services	208.4	209.7	213.2	217.3	223.8	230.2	238.2	242.8	236.5	234.1	12.3%
Other services	26.8	26.9	26.8	27.1	27.8	27.8	28.3	28.5	25.4	25.4	-5.2%
Trade, transportation, and utilities	88.8	89.4	90.9	92.1	92.5	92.3	92.8	93.5	91.3	88.4	-0.5%
Financial activities	41.0	41.1	41.7	42.3	42.4	41.6	42.5	43.1	42.5	42.5	3.7%
Information	12.0	11.5	11.5	11.8	11.6	11.6	12.1	12.2	11.7	12.3	2.5%
Manufacturing	22.9	21.8	21.5	21.0	20.5	20.2	19.9	19.4	17.9	18.2	-20.5%
Private Sector Total	*557.7*	*562.3*	*572.1*	*582.8*	*596.6*	*606.3*	*620.3*	*632.6*	*585.9*	*589.8*	5.8%
Government	105.3	103.5	102.2	101.6	101.3	102.2	103.7	105.0	107.1	103.4	-1.8%
Total	***663.0***	***665.8***	***674.3***	***684.4***	***697.9***	***708.5***	***724.0***	***737.6***	***693.0***	***693.2***	***4.6%***

Source: Bureau of Labor Statistics, 2021 annual average totals may not sum due to rounding.
[1]Includes person employed within the City, without regard to residency.

Table 5
Philadelphia Change in Share of Employment Sectors(1)
(Ranked by of Share of Total Employment in 2021)

Sector	Share of Total Employment 2012	Share of Total Employment 2021	Change 2012-2021
Education and health services	31.4%	36.6%	5.2%
Government	15.9%	16.7%	0.8%
Professional and business services	12.7%	15.8%	3.1%
Trade, transportation, and utilities	13.4%	13.6%	0.2%
Leisure and hospitality	9.5%	7.7%	-1.9%
Financial activities	6.2%	6.5%	0.3%
Other services	4.0%	3.9%	-0.2%
Manufacturing	3.5%	2.7%	-0.7%
Information	1.8%	2.5%	0.7%
Mining, logging, and construction	1.5%	1.8%	0.2%
Total	**100.0%**	**100.0%**	**0.0%**

Source: Bureau of Labor Statistics, 2021annual average; totals may not sum due to rounding.
[1] Includes persons employed within the City, without regard to residency.

Bureau of Labor Statistics data show that in 2021, the Education and Health Services; Professional and Business Services; and Trade, Transportation and Utilities sectors collectively represented 66% of total employment in the City for the year. From 2012 to 2021, Philadelphia gained 32,100 private sector jobs.

Unemployment

Philadelphia has recently narrowed the gap between its unemployment levels and the national unemployment levels. As shown in Table 6, employment gains in the latter part of 2013 through 2019 resulted in a decline in Philadelphia's unemployment rate from an annual average high of 10.9% in 2012 to 5.2% in 2019. However, the economic impact of the continuing COVID-19 pandemic reversed those gains in 2020. In 2021, the unemployment rate modestly decreased to 8.9% on average, further decreasing to 6.3% in March 2022.

Table 6 below shows unemployment information for Philadelphia, the MSA, the Commonwealth, and the United States.

Table 6
Unemployment Rate in Selected Geographical Areas
(Annual Average 2010-2020)

Geographical Area	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change in rate from 2012-2021
United States	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.4	-2.7
Pennsylvania	7.8	7.4	5.9	5.3	5.4	4.9	4.3	4.1	9.2	6.6	-1.2
Philadelphia-Camden-Wilmington MSA	8.4	7.8	6.2	5.4	5.1	4.7	4.2	3.9	9.2	6.3	-1.2
Philadelphia	10.9	10.3	8.1	7.1	6.8	6.2	5.5	5.2	12.2	8.9	-1.8

Source: Local Area Unemployment Statistics, Bureau of Labor Statistics, 2021.

Principal Private Sector Employers in the City

Table 7 lists the 20 largest private employers that are based in Philadelphia. Penn and Thomas Jefferson University and Jefferson Health top this list.

Fortune 500 companies headquartered or maintaining a major presence in Philadelphia include the Comcast Corporation, the Aramark Corporation, and Crown Holdings. Three Fortune 1000 companies are also headquartered within the City: FMC Corporation, Urban Outfitters, and Carpenter Technology.

Table 7
Largest Private Employers Based in Philadelphia
Ranked by Number of Local Employees[(1)]

Employer	Local Employees
University of Pennsylvania and Health System	47,204
Thomas Jefferson University and Jefferson Health	32,000
Children's Hospital of Philadelphia	21,925
Comcast Corp	16,406
Temple University Health System	10,510
Einstein Healthcare Network	8,210
Temple University	8,725
Independence Health Group	8,003
Drexel University	7,083
Wells Fargo Bank	5,331
Accenture	2,100
Deloitte	1,800
Ernst & Young LLP	1,510
Compass	1,400
KPMG	1,216
Rivers Casino	1,200
Burns' Family Neighborhood Markets	1,135
Willis Towers Watson	1,100
Day & Zimmerman	957
Janney Montgomery Scott	874
Total	**179,235**

[1] Source: Philadelphia Business Journal, 2021 Book of Lists (published in July 2021)

Hospitals and Medical Centers

The City is a center for health, education, research and science facilities with the nation's largest concentration of healthcare resources within a 100-mile radius. Philadelphia is home to 15 world-class medical systems and the first U.S. Food and Drug Administration ("FDA")-approved cell and gene therapies. There are more than 30 hospitals, five medical schools, two dental schools, two pharmacy schools, as well as schools of optometry, podiatry and veterinary medicine located in the City. The City is one of the largest health care and health care education centers in the world, and several of the nation's largest pharmaceutical companies are located in the Philadelphia area.

There is also growth in the Philadelphia region's life sciences ecosystem. More than 45 cell and gene therapy development firms have been established in the Philadelphia region and investment is at an all-time high. The Philadelphia region has been the recipient of $1.4 billion in National Institutes of Health ("NIH") grants and $2.4 billion in venture capital funds in 2021, contributing to the success of six FDA-approved therapies with research origins in the region. In 2020, the Philadelphia region claimed nearly a quarter of all cell and gene therapy investment funding nationwide.

Major research facilities are also located in the City, including those located at its universities and medical schools: Children's Hospital of Philadelphia, the Hospital of the University of Pennsylvania, The Wistar Institute, the Fox Chase Cancer Center, and the University City Science Center. Philadelphia is home to two of the nation's 71 National Cancer Institute ("NCI")-designated Comprehensive Cancer Centers (the Abramson Cancer Center at the University of Pennsylvania and Fox Chase Cancer Center, which is part of the Temple University Health System). Additionally, Philadelphia is also home to two NCI-designated Cancer Centers (Kimmel Cancer Center and The Wistar Institute Cancer Center).

Penn Medicine University of Pennsylvania Health System

Penn Medicine includes Pennsylvania Hospital, the nation's first hospital, founded in 1751 and the nation's first medical school, the University of Pennsylvania School of Medicine, opened in 1765. In addition, the Hospital of the University of Pennsylvania was established in 1874 as the nation's first teaching hospital. Penn Medicine's hospitals are consistently ranked among the top ten hospitals in the country with the combined University of Pennsylvania and Penn Presbyterian Medical Center among the top-ranked in the region by *U.S. News and World Report*. In 2021, Penn Medicine completed construction on a new 1.5 million square foot Patient Pavilion. The Pavilion has been one of the largest hospital projects underway in the United States and the largest capital project in Penn's history. The University of Pennsylvania and its health system (Penn) are the largest private sector employers in Philadelphia, comprising 47,200 employees in 2021.

Children's Hospital of Philadelphia Expansion

Children's Hospital of Philadelphia ("CHOP") is the oldest children's hospital in the nation and one of the largest in the world. CHOP is regularly among the top-ranked children's hospital in the nation according to *U.S. News and World Report*. Since 2002, CHOP has invested over $5.3 billion in its expansion in Philadelphia. In 2017, CHOP opened two facilities as a part of this expansion: the $500 million, 700,000 square foot Buerger Center for Advanced Pediatric Care, and the $275 million, 466,000 square foot Roberts Center for Pediatric Research.

In 2021, CHOP unveiled plans for two towers to continue expanding its footprint and patient capacity. The $1.9 billion New Patient Tower will expand inpatient capacity, add 1.3 million square feet and 300 beds, and is expected to be completed in 2027. Next to the Roberts Center, the second $600 million tower will hold 470,000 square feet of research and lab space and is scheduled to be completed in 2024.

Temple University Hospital, Inc.

Temple University Hospital, Inc. ("TUH") is one of the region's most respected academic medical centers. The 732-bed Philadelphia hospital is also the chief clinical training site for the Lewis Katz School of Medicine at Temple University. TUH is regularly ranked among the "Best Regional Hospitals" in various specialties by *U.S. News & World Report* regional rankings.

Thomas Jefferson University and Jefferson Health

Thomas Jefferson University Hospitals ("TJUH") is consistently at the top of the list of hospitals in Pennsylvania and the Philadelphia metro area in *U.S. News & World Report*'s annual listing of the best hospitals and specialties. Jefferson Health has recently participated in several significant mergers, integrating Magee Hospital, Kennedy Health System (located in New Jersey), the Aria Health system and Abington Hospital into its system. In 2017, Thomas Jefferson University acquired Philadelphia University to become the sixth largest educational institution in Philadelphia.

In late 2021, Einstein Healthcare Network merged with Thomas Jefferson University, creating an integrated 18-hospital health system. Einstein Healthcare Network's facilities and outpatient centers have been in existence for over 150 years. The Einstein Health and Medical Center in Philadelphia is regularly listed as a top hospital in *U.S. News & World Report*.

Educational Institutions

The Philadelphia region has one of the largest concentrations of undergraduate and graduate students on the East Coast, with approximately 100 degree-granting institutions. In 2021 alone, Philadelphia was home to over 132,000 students attending institutions of higher education. Included among these institutions are Penn, Temple University, Drexel University, St. Joseph's University, the Community College of Philadelphia and LaSalle University. Within a short drive from the City are such schools as Princeton University, Villanova University, Bryn Mawr College, Haverford College, Swarthmore College, Lincoln University, and the Camden Campus of Rutgers University.

University of Pennsylvania

Penn, the first university in the U.S., founded in 1740, and a prominent Ivy League institution, is located in West Philadelphia. In the fall of 2021, more than 23,000 full-time undergraduate, graduate and professional full-time students attended Penn. Approximately 5,000 part-time students were enrolled. As of the fall 2021, Penn had a total workforce of over 18,000 faculty and staff, and the University of Pennsylvania Health System had a workforce of 28,443 employees. In 2016, Penn opened Pennovation Works, a 55,000 square foot business incubator and laboratory that houses researchers, innovators, and entrepreneurs for the commercialization of research discoveries. Pennovation Works may lead to further growth in the life sciences industry in the City and additional development at the Lower Schuylkill Biotech Campus.

Penn has undergone significant expansion in the last decade and has a growing endowment. Since 2015, Penn, and related third-party developers, have spent nearly a billion dollars on new buildings and renovations. Combined, Penn and the University of Pennsylvania Health System are the largest Philadelphia employer. Penn is also consistently one of the largest annual recipients of funding from the NIH.

Drexel University

Founded in 1891 as the Drexel Institute of Science, Art and Industry, Drexel University ("Drexel") is one of Philadelphia's top 10 private employers, and a major engine for economic development in the region. Drexel, with a student body of approximately 23,500, is known for its innovation and civic engagement. Drexel is unique in that it provides its students with a co-op work experience every six months throughout the four-year college experience. Over the last decade, Drexel has undergone significant expansion and has major plans for future development. Since 2011, Drexel opened the doors to the $69 million Constantine N. Papadakis Integrated Sciences Building, a $92 million facility for its LeBow School of Business, and a new mixed use residential and retail project, Chestnut Square.

Temple University

Temple University ("Temple"), founded in 1884, has undergone a significant transformation over the past three decades from a university with a mostly commuter-based enrollment to one in which on and near-campus housing is now in high demand. As the largest university and seventh largest employer in Philadelphia, Temple features 17 schools and colleges, nine campuses, hundreds of degree programs, and nearly 40,000 students

"Visualize Temple," approved in 2014, is Temple's campus master plan to guide the continued growth and evolution of the City's leading public research university. It is the culmination of an 18-month long process driven by the input of over 3,000 Temple students, alumni, faculty, and staff. Such plan identifies challenges and opportunities at each campus and defines a collective vision for further campus transformation. Temple continues to implement key elements of this master plan. In 2019, Temple completed construction of the new Charles Library, a four-story, 225,000-square-foot facility on main campus.

Thomas Jefferson University

In 2017, Thomas Jefferson University and Philadelphia University merged. The new Thomas Jefferson University ("Jefferson") creates a national comprehensive university designed to deliver high-impact education and value for students in medicine, science, architecture, design, fashion, textiles, health, business, engineering, and other disciplines.

In addition to ten colleges and three schools from both universities, the formation of the Philadelphia University Honors Institute and the Philadelphia University Design Institute are key components of the combined university's educational ecosystem. Jefferson includes (i) campuses in Center City, Philadelphia ("Center City"), East Falls, Montgomery County, Bucks County, and Atlantic County (NJ); (ii) a growing online presence; (iii) numerous clinical sites; and (iv) an extensive global footprint with locations in Italy and Japan, study abroad sites and curricular and co-curricular partnerships and networks. Jefferson is home to more than 8,200 students and approximately 1,660 faculty members.

Community College of Philadelphia

The Community College of Philadelphia (the "College") serves over 19,000 students in associate's degree and certificate programs. The College operates four campuses: its main Campus in Center City Philadelphia and three regional campuses in West Philadelphia, Northeast Philadelphia, and Northwest Philadelphia. The College offers more than 100 associate's degree, academic and proficiency certificate, and workforce programs. Graduates continue to strengthen Philadelphia's local economy and workforce, both in Philadelphia and the Greater Philadelphia region.

The College enables students to embark on a smart path to a bachelor's degree program, with transfer agreements and partnerships to assist in the transition. The College is embarking on an expansion of its West Philadelphia Campus, to expand its Automotive Center and to establish a Workforce Campus with a new $33.5 million facility.

The College is one of 30 community colleges in the nation to undertake a new Career Pathways model under which it has expanded its dual enrollment programs, including establishing the first Middle College in the Commonwealth, with the School District of Philadelphia. Upon completion of high school, enrolled students will receive both a high school degree and an associate's degree.

The College has vastly expanded its role in workforce development and economic innovation, establishing a division that is responsible for working directly with Philadelphia employers to meet their workforce hiring and professional development needs. The College has established new post-secondary programs matched with Philadelphia's high priority occupations enabling Philadelphians to earn family sustaining wages without a degree.

Beginning in 2021, the College launched the Octavius Catto Scholarship (the "Catto Scholarship"), which is a new anti-poverty initiative funded by the City of Philadelphia designed to make education available to students by providing funding and support for tuition and fees and basic needs. The Catto Scholarship is available to Philadelphia residents who also meet income eligibility. Over the next five Fiscal Years, the Thirty-First Five Year Plan (as defined in APPENDIX III) includes approximately $55 million for Catto Scholarships.

St. Joseph's University

Saint Joseph's University (also called St. Joe's) is a private Jesuit university in Philadelphia and Lower Merion, Pennsylvania. In June 2022, two of Philadelphia's oldest colleges merged to serve over 9,000 students. The University of the Sciences (USciences) was founded as the Philadelphia College of Pharmacy in 1821. St. Joseph's was established in 1851. The combined school will serve students between two campuses. With the acquisition of additional academic programs, Saint Joseph's now offers hundreds of programs to undergraduate, graduate and adult learners, from doctoral programs to stackable credentials. The merger allows St. Joseph's to add former USciences programs in areas such as pharmacy, neuroscience, and occupational therapy, in addition to established business and education offerings.

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Family and Household Income

Table 8 shows median family income, which includes related people living together, and Table 9 shows median household income, which includes unrelated individuals living together, for Philadelphia, the MSA, the Commonwealth, and the United States. Over the period 2011-2020, median family income for Philadelphia increased by 36% (see Table 8), while median household income increased by 43.7% over the period 2011-2020 as a result of an influx of higher income households (see Table 9). Both statistics outpaced the increases in the MSA, the Commonwealth, and the nation as a whole.

Table 8
Median Family Income* for Selected Geographical Areas, 2011-2020
(Dollar Amounts in Thousands)

Year	Philadelphia	Philadelphia-Camden-Wilmington MSA	Pennsylvania	United States	Philadelphia as a percentage of the US
2011	$42.70	$75.70	$63.30	$61.50	69.4%
2012	$44.30	$77.00	$65.10	$62.50	70.9%
2013	$44.60	$78.20	$66.50	$64.00	69.7%
2014	$47.00	$80.60	$67.90	$65.90	71.3%
2015	$49.30	$83.00	$70.20	$68.30	72.2%
2016	$50.30	$84.80	$72.30	$71.10	70.7%
2017	$50.40	$86.20	$72.70	$70.90	71.1%
2018	$55.10	$90.43	$77.49	$76.40	72.1%
2019	$54.78	$94.79	$81.08	$80.94	67.7%
2020	$58.09	$95.37	$81.00	$80.07	72.5%
Change 2011-2020	36.0%	26.0	28.0%	30.2%	

* Includes related people living together.
Source: 2020 American Community Survey 5-Year Estimates

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Table 9
Median Household Income* for Selected Geographical Areas, 2011-2020
(Dollar Amounts in Thousands)

Year	Philadelphia	Philadelphia-Camden-Wilmington MSA	Pennsylvania	United States	Philadelphia as a percentage of the US
2011	$34.20	$58.30	$50.20	$50.50	67.7%
2012	$35.40	$60.10	$51.20	$51.40	68.9%
2013	$36.80	$60.50	$52.00	$52.30	70.4%
2014	$39.00	$62.20	$53.20	$53.70	72.6%
2015	$41.20	$65.10	$55.70	$55.80	73.8%
2016	$41.40	$66.00	$56.90	$57.60	71.9%
2017	$41.00	$66.30	$57.00	$57.70	71.1%
2018	$46.12	$70.75	$60.91	$61.94	74.5%
2019	$47.47	$74.53	$63.46	$65.71	72.2%
2020	$49.13	$74.83	$63.63	$64.99	75.6%
Change 2011-2020	43.7%	28.4%	26.8%	28.7%	

* Includes unrelated people living together.
Source: 2020 American Community Survey 5-Year Estimates

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Cost of Living Index

Philadelphia has the lowest cost of living index among major urban areas in the Northeast, as shown in Table 10 below. Additionally, the City's Wage, Earnings, and Net Profits Tax rates have decreased in recent Fiscal Years. See "REVENUES OF THE CITY – Wages, Earnings, and Net Profits Taxes" in APPENDIX III.

Table 10
2022 (First Quarter) Cost of Living Index
Philadelphia Indexed to 100

Urban Area	Cost of Living Index
New York- Manhattan	224
San Francisco	174
D.C.	150
Los Angeles-Long Beach	143
Boston	142
Seattle	142
Chicago	119
Denver	104
Baltimore	101
Philadelphia	**100**
Atlanta	98
Detroit	97
Austin	96
Dallas	95
Pittsburgh	94

Source: Council for Community and Economic Research (C2ER), Cost of Living Index (COLI)

Housing

Philadelphia's housing market has undergone a significant revitalization over the last two decades. The period between the 2000 and 2010 censuses was the first wherein Philadelphia experienced a net population increase since 1940 to 1950, due both to rapid growth in the number of higher income households in these core neighborhoods and to a significant influx in the foreign-born population in more peripheral neighborhoods of the City.

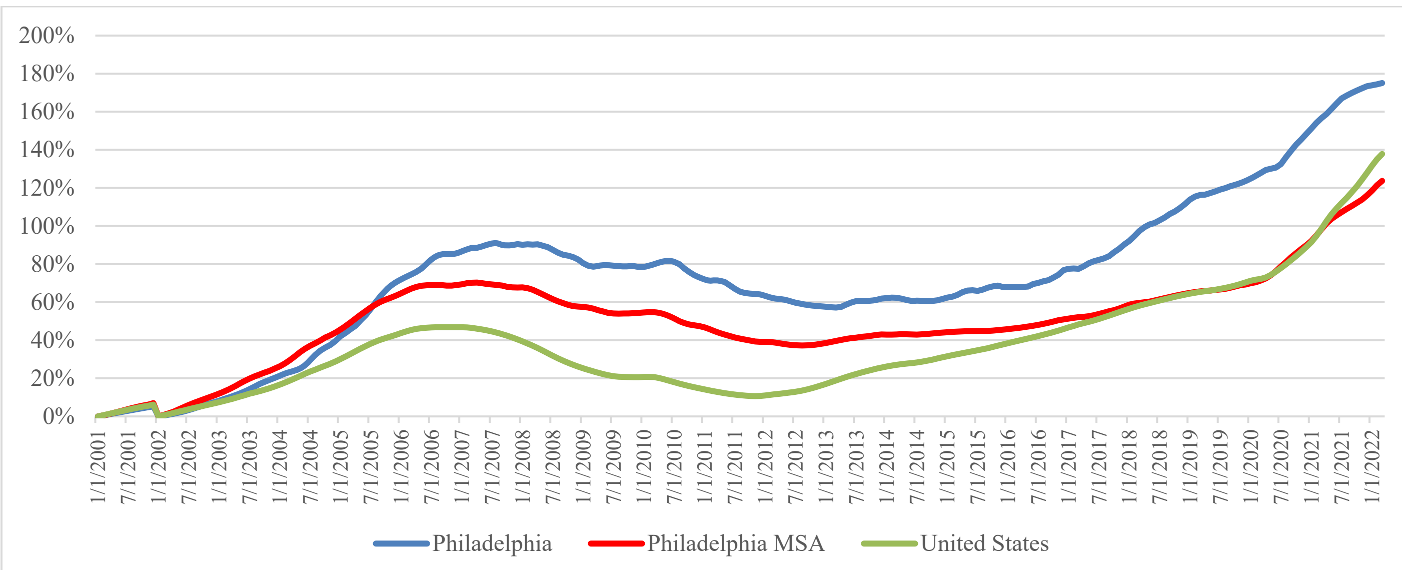
The City's population growth has driven significant new construction and investment in many of its neighborhoods resulting in increases in the value of the City's housing stock. Most housing indicators for Philadelphia indicate an upward outlook, in terms of prices and construction, for the near future. Nevertheless, the City continues to face significant challenges caused by the persistent problems of poverty, crime, underperforming schools, and lack of employment opportunities in some sectors.

The total housing stock, measured by the number of units, increased by 3.2% from 2010-2019, for a total of 691,700 in 2019.[3] This increase of 21,600 units is the result of a net increase of 16,900 multifamily units, 3,600 single-family homes, and 1,100 "other" units (such as mobile homes and boats). The homeownership rate in the City in 2019 was 52.3%, which represents a decline from 54.1% in 2010.[3] Accordingly, properties in the City have continued to command higher rents, with the median monthly rent in May 2022 equal to $1,846, representing a 24.9% increase over the prior five-year period.[4]

Home Prices

As shown in the chart below, after eight years of moderate house price deflation following the peak of the 2007 recession, Philadelphia's housing market began posting rapid increases in prices, citywide, starting in 2013. In late 2017, home values in Philadelphia recovered to their pre-recession peak and have continued to climb to 43% above that peak as of March 2022. The following chart uses the Home Value Index to chart changes in home values in Philadelphia, the Philadelphia region, and the U.S. as a whole over the 20-year period from January 2001 through March 2022.[5]

Percent Change in Median Nominal Home Value (Zillow Home Value Index), 2001-2021



Source: Zillow Research, ZHVI Time Series

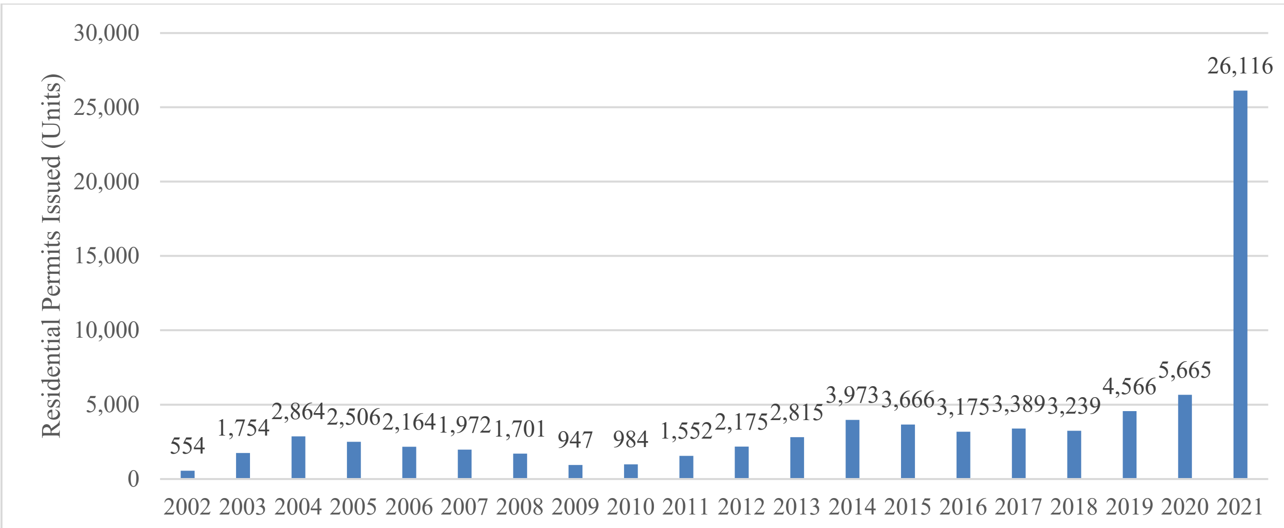
Over this entire period, Philadelphia's median home prices have been lower than that of the region or the country as a whole. However, because the rate of growth in the City's home values matched or outpaced these comparison regions and the housing market in Philadelphia retained a much greater share of its pre-recession gains, it has significantly closed that gap. Whereas the median home in Philadelphia was 56% that of the US in 2002, it was 71% of the national average by 2021.

[3] US Census Bureau, American Communities Survey, 1-Year Survey
[4] Zillow Research, ZRI Time Series
[5] Zillow Research, ZHVI Time Series

Home Construction

Home building activity in Philadelphia has also made significant progress since hitting its recessionary low in 2009. The following chart shows the number of newly constructed units being added to Philadelphia's housing stock, as represented by the number of building permits issued for such units, from 2002 through 2021.

Building Permits Issued in Philadelphia, New Construction Only (Number of Units), 2002-2021



Source: US Census, Building Permits Survey

The number of building permits for new residential units issued significantly increased in 2021, with a 361% increase over the previous calendar year. The large increase coincided with the end of the city's 10-year tax abatement, which had been set to expire at the end of 2020, to be replaced by a modified version. The original abatement was extended by a year because of the pandemic. The City's new tax-abatement program went into effect in January 2022. For more information on the new tax-abatement program, see APPENDIX III – "REVENUES OF THE CITY – Real Property Taxes."

Historically, construction of new housing units in Philadelphia was low by both absolute and relative measures, averaging only 507 units per year in the decade from 1990 through 1999. However, since 2003, permits for new construction have not been for less than 947 units in any single year, including during the nadir of the 2007 recession. Notably, these data do not include additions or substantial alteration to existing buildings, which together account for nearly a third of all new housing units in Philadelphia.

Despite rising income levels and the relative affordability of home prices in Philadelphia, the City seeks to address housing inequities that can be exacerbated by a strong real estate market. To further increase the supply of affordable housing, the City launched the Neighborhood Preservation Initiative ("NPI") in 2021. NPI supports the production and preservation of affordable housing units, home repair and tangled title programs, eviction diversion services, and other innovative programs relating to neighborhood investments. In October 2021, the Philadelphia Redevelopment Authority ("PRA") issued $98,560,000 in City Service Agreement Revenue Bonds to finance certain costs of the NPI program.

Office Market

The City currently has approximately 12.97 million square feet of office space in the Central Business District ("CBD"), with an additional 308,000 square feet under construction according to Jones Lang LaSalle's ("JLL") statistics for the first quarter of 2022.

Like other office markets, lingering uncertainty around re-entry plans due to the COVID-19 pandemic continues to affect Philadelphia's office environment; the average direct asking rental rates in the City's CBD dropped to $35.89 per square foot in the first quarter of 2022, with a vacancy rate of 14.2%. Prior to the COVID-19 pandemic, the City's CBD enjoyed rising rents with low overall total vacancy. Its suburban counterparts have seen higher overall total vacancy and lower rents due to the pandemic, at 20.5% and $28.59 per square foot.

Table 11 shows comparative overall first quarter 2022 office vacancy rates for selected office markets.

Table 11
Total Office Vacancy Rates of Selected Office Markets
First Quarter 2022

Market	Vacancy Rate
San Diego	13.6%
New York	15.2%
San Antonio	15.9%
Boston	16.2%
Baltimore	16.6%
Austin	16.8%
Seattle	18.1%
Philadelphia	**18.5%**
Charlotte	19.7%
United States CBD, All Markets	19.9%
Cleveland	20.6%
Los Angeles	20.8%
Washington, DC	20.8%
Phoenix	21.7%
San Francisco	21.9%
Chicago	22.7%
Detroit	23.0%
Atlanta	23.4%
Dallas	26.3%
Houston	28.4%

Source: Jones Lang LaSalle, National CBD Data, First Quarter 2022

ECONOMIC DEVELOPMENT STRATEGIES AND IMPLEMENTATION

City of Philadelphia Economic Development Mission and Goals

The City's economic development strategy is to (1) grow quality jobs by fostering an improved business environment; (2) increase the City's population and visitation; and (3) enable inclusive growth and neighborhood revitalization. The City partners with numerous quasi-city and private agencies to accomplish these objectives.

The City utilizes several place-based economic development strategies to spur development in Philadelphia. These strategies include: (i) a 10-year graduated tax abatement (10% comes off the abatement each year until the property owner pays 100% value) on all new construction, as well as on improvements to existing properties (became effective January 1, 2022; legislative changes to this program are described in APPENDIX III – "REVENUES OF THE CITY – Real Property Taxes – Assessment and Collection"); (ii) Commonwealth-designated Keystone Opportunity Zones in which eligible businesses may be exempt from all Commonwealth and local business taxes until a specified date; (iii) Commonwealth-designated Keystone Innovation Zones in which energy, defense, technology, and life-sciences companies may be eligible for saleable tax credits worth up to $100,000 annually for the first eight years of operations; (iv) tax increment financing; and (v) commercial corridor revitalization through support of Business Improvement Districts and reimbursement for certain storefront and interior retail improvements.

The City actively works to raise its profile in the international business community. In 2015, the City received the first World Heritage City designation in the United States by the Organization of World Heritage Cities and signed a "sister city" agreement with Frankfurt, Germany (Philadelphia's first sister city since 1992). The City has also hosted delegations of business leaders and officials on trade missions to the United States and has participated in business missions to Germany, France, Portugal, China, South Korea, Canada, Denmark, Sweden, Chile, and Israel. These efforts have resulted in new business attraction leads, enhanced cooperation, support to international air route development, and the opening of foreign government offices (South Korean Consulate, Chilean trade & investment office). In 2018, a website was launched, philadelphiadelivers.com, showcasing all that the City has to offer businesses including location, talent, affordability, and amenities. The same year, Philadelphia was one of four cities selected by the Brookings Institute to join the Global Identity Cohort, which lead to the creation of the Philadelphia Global Identity Partnership, gathering about 80 local stakeholders, engaged in developing a shared brand, narrative, and toolkit around Philadelphia to elevate its global profile as an attractive hub for investment, business, and talent. Despite the pandemic and closing of the U.S. borders to most foreign markets until late 2021, the City has kept engaging with foreign businesses and partners, to strengthen exchanges, resulting, in 2022, in delegations and visits for new business attraction projects. The City also started to support trade opportunities considering the global supply chains' shifts, centered around export initiatives, to connect Philadelphia businesses, particularly minority-owned businesses, with market intelligence, and export-readiness programs and service providers.

City and Quasi-City Economic Development Agencies and Related Programs

City of Philadelphia Department of Commerce

The mission of the Department of Commerce is to help all businesses thrive by growing quality jobs, building capacity in under-resourced communities, and making it easier to start and run a successful business in Philadelphia. Going forward, the Department of Commerce expects to focus on the following strategic priorities and investments: (i) providing trusted guidance and a simplified process to establish, grow, and operate a business; (ii) driving equitable neighborhood revitalization that contributes to vibrant commercial corridors; (iii) attracting and retaining businesses through business resources and strategic investments; (iv) connecting talent to growth industries and to jobs that pay family-sustaining wages; (v) striving to build wealth in communities of color through more equitable access to capital and contracting opportunities; and (vi) leveraging economic research to drive policy and strategy.

City of Philadelphia Department of Planning and Development

The Department of Planning and Development ("Planning and Development") oversees all planning, real estate development support, and commissions such as the Historical Commission, Planning Commission, Art Commission and Civic Design Review. Planning and Development also oversees all housing initiatives and plays a key role in community development.

Philadelphia Industrial Development Corporation ("PIDC")

PIDC is a non-profit organization founded by the City of Philadelphia and the Greater Philadelphia Chamber of Commerce in 1958. PIDC offers flexible financing tools, a targeted portfolio of industrial and commercial real estate, and expertise to help clients invest, develop, and grow in Philadelphia. PIDC also structures and invests in public-private partnerships for key City policy areas and development priorities. Over the past 63 years, PIDC and its affiliates have settled over 9,800 transactions, including more than $17 billion in financing that has leveraged over $30 billion in total investment and assisted in creating and retaining hundreds of thousands of jobs in Philadelphia. Its direct loan and managed third-party portfolio at year-end 2019 was more than $518 million, representing 500 loans.

In 2022, PIDC is seeking partners to shape the next phase of growth and development on Philadelphia's Schuylkill River with a landmark development opportunity for up to 1 MSF of state-of-the-art cell and gene therapy manufacturing. The development opportunity, marketed as the Lower Schuylkill Biotech Campus, is offering exclusive development rights across two distinct "North" and "South" riverfront sites totaling approximately 40 acres. The Lower Schuylkill Biotech Campus will be an integral component of the Lower Schuylkill Innovation District, which consists of a total of 75 acres of sites suitable for biotech companies at every stage of development. The district also provides streamlined connections to I-95, I-76 and the Philadelphia International Airport. The Innovation District was the outcome of a city-led master planning process to transform a deteriorating 3,700-acre industrial corridor into modern business campuses for innovation.

Philadelphia Redevelopment Authority ("PRA")

In 1945, the Commonwealth enacted the Urban Renewal Law and created the PRA as the City's urban renewal agency. Today, the PRA continues its role as a key financer, project manager, leader, and expert of developing and maintaining land in the City. The PRA is one of five municipal land holding agencies. Its Real Estate Division facilitates the redevelopment of PRA assets and it provides project management and analysis for real estate sales, acquisitions, redeveloper agreements, developer submissions, and required approvals. Its Housing Department leads the underwriting and loan closing process for all affordable housing projects within the City and works primarily with non-profit and for-profit developers as a lender. As described in "ECONOMIC BASE AND EMPLOYMENT – Housing – Home Construction," in October 2021, the PRA issued $100,000,000 in City Service Agreement Revenue Bonds to finance certain costs of the NPI program, which supports affordable housing programs in the City, among other things.

Philadelphia Land Bank ("PLB")

Established in 2013, the PLB is an institutional partner in land use. The aim of the PLB is to consolidate many of the land acquisition and disposition processes of the City under one umbrella, making it easier for private individuals and organizations to acquire properties that otherwise contribute to neighborhood disinvestment and turn them into assets for the community in which they are located. The PLB can: (i) consolidate properties owned by multiple public agencies into single ownership to speed property transfers to new, private owners; (ii) acquire tax-delinquent properties through purchase or by bidding the City's lien interests at a tax foreclosure; (iii) with consent of the City, clear the title to those properties so new owners are not burdened by old liens; and (iv) assist in the assemblage and disposition of land for community, non-profit, and for-profit uses.

In the PLB's most recent update to its strategic plan (June 2019), certain key achievements were highlighted, including, among other things, (i) an increase in acquisitions (up from 21 in Fiscal Year 2017 to 276 in Fiscal Year 2018 and 463 through the second quarter of Fiscal Year 2019); (ii) an increase in dispositions (up from 18 properties conveyed in Fiscal Year 2017 to 78 conveyed in Fiscal Year 2018 and 132 properties conveyed through the second quarter of Fiscal Year 2019); and (iii) formalizing the process for executing license agreements.

Division of Housing and Community Development ("DHCD")

DHCD, formerly known as the Office of Housing and Community Development and now part of Planning and Development, manages planning, policy, and investment in low-income housing through several assistance programs. Most significantly, the DHCD creates and manages implementation of the Consolidated Plan, a federally-mandated plan and budget that must be updated yearly in order to receive federal Community Development Block Grant funding.

Philadelphia Housing Authority ("PHA")

PHA is funded primarily by the federal government and is the largest landlord in Pennsylvania. PHA develops, acquires, leases and operates affordable housing for City residents with limited incomes. PHA works in partnership with the City and Commonwealth governments, as well as private investors. Over 93% of PHA's annual budget is funded directly or indirectly by the U.S. Department of Housing and Urban Development, and most of the balance of PHA's budget is derived from resident rent payments. Neither PHA's funds nor its assets are available to pay City expenses, debts, or other obligations, and the City has no power to tax PHA or its property. Neither the City's funds nor its assets are subject to claims for the expenses, debts, or other obligations of PHA.

Rebuilding Community Infrastructure Program ("Rebuild")

The Rebuild program, using funds from the Philadelphia Beverage Tax (see APPENDIX III – "REVENUES OF THE CITY – Other Taxes"), will invest hundreds of millions of dollars in Philadelphia's parks, recreation centers, and libraries over a seven-year period. Rebuild prioritizes sites in high-need neighborhoods, as well as sites that are in extremely poor condition. This program is intended to catalyze economic development in some of Philadelphia's most impoverished communities and neighborhoods. Rebuild is not only committed to making transformative capital improvements in neighborhood public and shared spaces, but will also strive to build capacity and opportunities for minority and women-owned businesses and job opportunities for local residents. In November 2018, the Philadelphia Authority for Industrial Development (PAID) issued $79,460,000 in City Service Agreement Revenue Bonds to finance certain costs of the Rebuild program.

Philadelphia Works, Inc.

Philadelphia Works, Inc. (PhilaWorks) is the City of Philadelphia's workforce investment board, a non-profit, quasi-public organization serving employers and connecting career seekers to employment and training opportunities. PhilaWorks invests public resources in a variety of workforce solutions that drive economic growth, influence public workforce policies, as well as optimize funding and resources to build a skilled and thriving workforce.

PhilaWorks manages the City's public workforce system, PA CareerLink® Philadelphia, and a network of youth workforce providers. The system offers talent pipeline development, skills gap training or upskilling, long-term workforce, and tech talent solutions for career-seekers and subsidized wage and tax incentives for employers. Annually, PhilaWorks directly engages approximately 60,000 local career seekers through in-person and online services, another 200,000 via direct outreach, and 2,000+ businesses. PhilaWorks receives approximately $55 million in state and federal investments to administer these services. This money is divided between WIOA (Workforce Innovation and Opportunity Act) and TANF (Temporary Assistance for Needy Families) funds.

Key Commercial Districts and Development

Over the last two decades, the City's economic development agencies and others have spurred significant economic revitalization throughout the City. In particular, a number of geographic areas have experienced concentrated developments: Philadelphia's Historic District, Avenue of the Arts, North Broad Street, and the Benjamin Franklin Parkway. Many of these developments, such as a significant increase to Philadelphia's hotel room inventory in Center City and expansion of the Pennsylvania Convention Center, have been key to the growth of Philadelphia's leisure and hospitality sector. Several key areas within the City have been instrumental in the economic and commercial development of Philadelphia over the past 25 years and associated population growth since 2000. However, as noted herein, COVID-19 has caused a downturn in economic development and the tourism and hospitality industries in the City. While the City's economic development agencies expect continued commercial development in key commercial districts, the length and severity of a COVID-19-related downturn are uncertain and are being closely monitored.

Recent and current developments in the key commercial districts described below are listed in Table 12.

Center City

A district that has seen a resurgence over the last two and a half decades, Center City is Philadelphia's central business and office region within the City. Center City is the strongest employment center in the City. In addition, the area contains a sizeable residential population and provides ample access to retail, dining, arts and culture, entertainment, and mass transportation services, to both residents and daily commuters. Sustained by demand from 70,000 residents in core Center City, the third largest downtown residential population in the country, retail recovery accelerated in 2021 and the first quarter of 2022 as tourists and office workers cautiously returned. Center City is flanked by neighborhoods that are considered "Greater Center City." Over the last two decades, as there has been an influx of new businesses and residents in these neighborhoods, the boundaries of Greater Center City have moved significantly further North and South, with the Delaware and Schuylkill rivers remaining boundaries on the East and West.

In 1991, the business leadership organization created the Center City District (CCD) business improvement district to deliver daily services with the goal of making Center City clean and safe. This helped transform Center City into a vibrant 24-hour downtown, attractive to businesses, residents, students, shoppers and tourists. In addition, the CCD is responsible for the management of Dilworth, Sister Cities, John F. Collins and Cret Parks, four well-utilized public spaces in the heart of Center City. CCD also makes physical improvements to the downtown, installing and maintaining lighting, signs, banners, trees and landscape elements. The district encompasses 233 blocks and more than 1,500 properties. CCDF, the charitable affiliate of the CCD, was launched in 2016 to support the next generation of public space improvements in Center City Philadelphia.

Old City

Old City is home to some of the country's oldest historical assets and is considered America's "most historic square mile." Independence National Historical Park is an international destination, attracting 4.8 million visitors annually. Important culturally and economically, Old City is also home to world-class museums, theaters and art galleries. The neighborhood offers excellent hotels, a wide range of dining and nightlife establishments, independent retailers and a diverse mix of technology, media, professional, and service organizations. Some 5,000 residents live in historic townhouses, industrial loft apartments, and new condominium properties. Old City is located within a Keystone Innovation Zone, meaning that technology, energy, and life sciences businesses may be eligible for up to $100,000 in tax credits.

Old City District ("OCD") is a business improvement district that promotes the area and fosters economic development locally. OCD helps companies find suitable real estate and actively promotes the sector to attract businesses. Over the last few years, technology and creative businesses have established an increasingly important presence in the area.

University City

Located west of Center City, University City is a hub for the health care, life sciences, and higher education sectors and accounts for a significant percentage of the City's employment. It includes the campuses of Penn, Drexel University, St. Joseph's University, the University of Pennsylvania Health System, the Children's Hospital of Philadelphia, and The Wistar Institute, as well as the University City Science Center, a biomedical incubator. University City has experienced significant real estate development, driven mostly through the investment of its universities and research institutional anchors.

In University City, Penn has built the $88 million Singh Center for Nanotechnology and invested $127 million in a residence hall called New College House at Hill Field. Drexel University has invested nearly $300 million in University City and is planning for an additional $3.5 billion over 20 years in the development of Schuylkill Yards in partnership with Brandywine Realty Trust. Such project will develop 14 acres of underutilized land near Philadelphia's 30th Street Station into an innovation neighborhood, which will feature a mix of entrepreneurial spaces, educational facilities and research laboratories, corporate offices, residential and retail spaces, hospitality and cultural venues and public open spaces.

The Navy Yard

The Navy Yard is a 1,200-acre mixed-use office, research, and industrial campus with over 15,000 people working on-site across 170 companies. The Navy Yard has diverse tenants such as Philly Shipyard, one of the world's most advanced commercial shipbuilding facilities; the global headquarters for retailer Urban Outfitters, Inc.; a 208,000 square foot, double LEED Platinum corporate office for pharmaceutical company GlaxoSmithKline; and a LEED Silver bakery facility for the Tasty Baking Company (now, Flowers Food). More than 7.5 million square feet of space is currently occupied or in development with significant additional capacity available for office, industrial, retail and residential development. In recent years, the Navy Yard's total employment has steadily expanded by approximately 1,000 new employees per year to support an additional 10 million square feet of commercial and residential development at full buildout. The Navy Yard has been recognized as a leading model for repurposing military and industrial assets for a diversified modern economy.

PIDC and its partners released an update to the previous 2013 master plan in 2022, detailing a vision for long-term equitable growth at the Navy Yard. The 2022 plan outlines plans to deliver 12,000 new jobs, 8.9 million square feet of new life science, commercial, residential, retail, and mixed-use development and $5.9 billion of new investment. Focused on further enhancing the mixed-used campus site, the 2022 plan will also bring the first private residents to the Navy Yard since the site was acquired in 2000.

Since 2000, the Navy Yard has leveraged more than $170 million in publicly funded infrastructure improvements to spur more than $850 million in new private investment.

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Table 12
Recently Completed Projects or Projects Under Construction in the Key Commercial Districts

Project Name, by Neighborhood	Project Type	Cost in Millions	Est. Completion Date
CENTER CITY			
LVL Broad and Spring Garden	Mixed/Residential	$180	2022
Jefferson Health Specialty Care Pavillion	Medical	$762	2024
Morgan Lewis Office Tower (23rd & Market)	Office	$200	2023
Aramark Headquarters (2400 Market)	Office	$230	*Completed in 2019*
W Hotel/Element	Hotel	$359	*Completed in 2021*
The Fashion District (Market Street)	Commercial	$350	*Completed in 2020*
The Laurel (1911 Walnut)	Residential	$400	2022
Hanover North Broad	Mixed Use	$50	*Completed in 2020*
SLS Residences	Residential	$253	2022
Police Headquarters in Inquirer Building	Public	$250	*Completed in 2021*
1608 Sansom Street	Residential	$200	2023
2301 Arch Street (Phases I and II)	Retail/Residential	$160	*Completed in 2021*
204 S. 12th Steet	Residential	$180	*Completed in 2021*
123 S. 12th Street	Residential	$225	2023
Toll Brothers Apartments (Broad & Noble St)	Residential	$150	2023
The Witherspoon Building (1319 Walnut St)	Residential	$60	*Completed in 2021*
NAVY YARD			
Wuxi (4751 League Island Blvd)	Office/Lab	$78	*Completed in 2020*
Iovance (300 Rouse Blvd)	Office/Lab	$125	*Completed in 2021*
OLD CITY			
I-95 Overcap Park (Penn's Landing)	Public	$225	2026
702 Samson St	Retail/Residential	$100	2024
OTHER NEIGHBORHOODS			
13th and Fairmount (Broadridge)	Retail/Residential	$210	*Completed in 2021*
501 Spring Garden	Retail/Residential	$160	2023
300 N. Christopher Columbus Ave	Residential	$200	2023
Festival Pier (501 N. Christopher Columbus)	Residential	$250	2023
418 Spring Garden	Retail/Residential	$200	2024
Hamilton Building	Mixed	$160	*Completed in 2021*
Faith and Liberty Building	Commercial	$60	*Completed in 2021*
UNIVERSITY CITY			
3151 Market St (Schuylkill Yards)	Office/Medical	$300	2023
CHOP Schuylkill Ave Expansion (Phase 2)	Medical	$600	2024
4601 Market	Office/Medical	$250	*Completed in 2021*
Penn Health Tower	Medical	$1,600	*Completed in 2021*
CHOP Berger Center Expansion	Medical	$492	*Completed in 2021*
TOTAL		**$9,019**	

Source: Philadelphia Department of Planning and Development.

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Waterfront Developments

Taking advantage of the City's geographic assets, the Schuylkill River and the Delaware River, the City is redeveloping its waterfront to accommodate a variety of developments, including mixed-use projects and housing, parks and recreational trails, and hotels. These projects improve quality of life for residents and improve the visitor experience, but also are an impetus for environmental remediation and private development of former industrial property within the City.

Delaware River Waterfront Corporation ("DRWC")

The Delaware River has historically been a center of activity, industry, and commerce, bounded at its north and south ends by active port facilities. The City adopted a Master Plan for the central Delaware River in 2011. DRWC, in partnership with the City, is a nonprofit corporation that works to transform the central Delaware River waterfront into a vibrant destination for recreational, cultural, and commercial activities. Over the last 10 years, DRWC has successfully opened four adaptive reuse park projects built on former pier structures, including the expansive Delaware River Trail in 2022 and the newly renovated Cherry Street Pier in 2018. DRWC has several development projects underway, such as the South Wetlands, Graffiti Pier, and I-95 Overcap Parks. The I-95 Overcap Park will cap a section of I-95 and connect Old City Philadelphia with the Delaware River. The proposed 11-acre, multimillion-dollar park project is in the planning stages. Construction of the park is anticipated to begin in calendar year 2022 and be completed in 2026.

DRWC, the City, and the Commonwealth have also partnered to redevelop Penn's Landing, a major public space along the Delaware River waterfront. The resulting civic space will leverage investment from private sources for the redevelopment of the adjoining parcels. The project is expected to generate approximately $1.6 billion of new revenues benefiting the City, School District, and Commonwealth. Potential future development includes two parcels that could bring 1,500 new housing units, 500 hotel rooms, and over 100,000 square feet of retail, dining, and entertainment to the waterfront.

Schuylkill River Development Corporation ("SRDC")

Redevelopment along the Schuylkill River is managed by a partnership among SRDC, the Department of Parks & Recreation, and the Department of Commerce. SRDC works with federal, Commonwealth, City, and private agencies to coordinate, plan and implement economic, recreational, environmental and cultural improvements, and tourism initiatives on the Schuylkill River. From 1992 to 2017, $70 million was invested by SRDC, the City, and their partners along the tidal Schuylkill to create 3.65 miles of riverfront trails within 30 acres of premiere park space in the heart of the City, and has added amenities to the Schuylkill River Park such as floating docks, fishing piers, a composting toilet, and architectural bridge lighting. SRDC continues to work towards meeting its goal of creating and maintaining trails and green space along the tidal Schuylkill River in Philadelphia, such as the Christian to Crescent Connection. This trail section will connect neighborhoods on both sides of the Schuylkill River to a vast existing network of parks and trails, including the Schuylkill River trail, Fairmount Park, and the regional network of recreational trails and related facilities known as the Circuit. It will also provide those neighborhoods with a direct pedestrian and bicycle route to Center City's jobs and services. In addition, it will help complete Philadelphia's segment of the East Coast Greenway.

SRDC also worked with the City to extend Schuylkill Banks to 61st Street. The project included the construction of approximately 1,800 feet of trail, shoreline stabilization, constructing stormwater infiltration basins, planting approximately 125 trees, restoring approximately 1.6 acres of degraded industrial land, as well as constructing an overlook, and a fishing plaza. This project is the first phase of a larger trail extension project. Bartram's to 61st Street completed in November 2021. Work is underway on the Schuylkill Crossing at Grays Ferry, the Christian to Crescent Connector trail segment, and the Bartram's Mile Fishing Pier. Plans continue for the 61st Street to Passyunk trail segment, bringing us closer to installing a trail and greenway with vital riverfront access along the entire tidal Schuylkill.Since 2005, Philadelphia has benefitted from more than $1 billion in development along the Schuylkill River, with more planned by private developers, universities, and healthcare institutions.

Casinos

Rivers Casino

Philadelphia's first casino, Rivers (originally SugarHouse), originally opened in September 2010 and underwent a $15 million rebrand in 2019. One of Philadelphia's largest employers, Rivers Casino sits on the Delaware River waterfront offering an array of slot machines, table games and dining options. Its operations also include a multi-purpose event space with waterfront views, restaurants, live entertainment, and a parking garage.

Cordish Live!

Live! Casino & Hotel Philadelphia, which opened in January 2021, is a $700 million world-class hotel, gaming, dining and entertainment destination featuring 2,200 slot machines and 150+ live action table games, an upscale 200+ room hotel, a new 2,700-space parking garage, locally and nationally-recognized restaurants and live entertainment venues. The project is located in the heart of the Stadium District in South Philadelphia, immediately proximate to Xfinity Live!, The Cordish Companies' premier dining and entertainment district. The project creates the first comprehensive gaming, resort, entertainment, and sports destination in the United States, making it a true regional destination.

Manufacturing and Advanced Industries

Leading into the COVID-19 pandemic, the City was beginning to see the emergence of a "maker-space" with small batch manufacturing activities increasing, such as 3D printing, artisanal manufacturing, distilleries, and craft beer breweries in the City. As the pandemic hit, much of this activity slowed, but some of this manufacturing continues in the City.

The City has also benefitted from its strategic location and transportation infrastructure (airport and shipping ports) to capitalize on the growth in next day shipping, e-commerce, and distribution sectors. In the last few years, the City has been viewed as an ideal location for companies out of New York and Central Pennsylvania for affordable industrial real estate and workforce, resulting in new job opportunities and growth potential.

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TOURISM AND HOSPITALITY

As noted herein, the City expects COVID-19 to have a wide-ranging economic impact on its various key commercial sectors, including tourism and hospitality. The leisure and hospitality sector historically demonstrated strong growth until contracting in 2020. Such contraction can be attributed to the pandemic and thus can be expected to rebound in upcoming years.

In 2021, it was a year of recovery for Philadelphia hotels that were severely impacted by COVID-19. As vaccinations became widely available, traveler interest grew, with travel volumes increasing through the spring and summer season. Still, the industry faced challenging conditions, with segments like international, convention, and business travel still heavily impacted by the pandemic. Year over year changes in visitation and impact measures for 2021 reflect a partial rebound from the large economic losses associated with the ongoing COVID-19 pandemic.

Regional domestic visitation totaled 36.2 million in 2021. This represented a 21% increase from 30 million person-trips in 2020 but remained 19% below 44.4 million visitors in 2019. Visitor spending within the region totaled $5.2 billion in 2021. This represented a 26% increase from $4.1 billion in 2020 but remained 32% below the $7.6 billion in spending in 2019. Employment impact from direct and spillover activity totaled 76,700 jobs in 2021. This represented a 36% increase from 56,500 in 2020.

In Center City alone, hotels reached 40.8% occupancy, a 31.3% increase over 2020's 31.1% occupancy. There are 4.88 million room nights in supply (up 30.6% over 2020) and 2 million room nights sold (up 71.6% over 1.16 million rooms in 2020). Room revenue reached $361 million, up 99.4% from $181 million in 2020. Of the 2 million rooms occupied, demand was greatest among leisure visitors, who were projected to lead the travel industry's recovery: leisure (45.2%), business (32.1%) and group (18.8%). Contract business – primarily flight crews and long-term stays – accounted for 3.9% of the mix. Prior to COVID-19, the City hosted several high-profile, global events, notably the papal visit from Pope Francis in 2015 and the Democratic National Convention in 2016. In April 2017, Philadelphia hosted the NFL Draft on the Benjamin Franklin Parkway in Center City, with an estimated attendance of more than 250,000. Philadelphia has been the traditional host of the annual Army-Navy football game, hosting 89 of the 122 games in the series, and remains part of the hosting rotation for the game (including the 2022 and 2027 games). In recent years, the City has hosted several large medical conferences. Prior to the pandemic, business and convention tourism, as well as leisure tourism, had shown consistent growth, setting a record-high for room revenue generated for lodging in 2019. Philadelphia has been selected as one of the 16 host cities for the 2026 FIFA World Cup. The City is regularly listed as a top domestic and international destination in tourism publications. Philadelphia was one of only three U.S. destinations to make Condé Nast Traveler's 2021 Gold List.

The Philadelphia Convention and Visitors Bureau ("PHLCVB") books meetings, conventions and sporting events, and supports international marketing of Philadelphia to overseas markets. PHLCVB also books domestic group tours. Prior to the pandemic, the PHLCVB had 635 meetings, conventions, and sporting events booked, which were expected to result in a total of 3 million attendees consuming 3.6 million room nights. Some of these events had been cancelled, rescheduled, or postponed as a result of COVID-19. In 2022, PHLCVB has 19 citywide events scheduled — gatherings that generate 2,000 or more hotel room stays on its peak night — matching the number of annual citywide events held in 2019 before the pandemic.

Visit Philadelphia markets Philadelphia domestically, as well as in Canada and Mexico, to promote leisure travel. According to the Visit Philly 2020 Annual Report, from 1997 to 2019, Center City leisure hotel demand grew 331% to 1.1 million room nights. After growing consistently for more than a decade, Tourism Economics projects a 53% decline of leisure demand in 2020 to just over 500,000 room nights (as a result of COVID-19). The Visit Philly 2020 Annual Report includes projections that show leisure travel will recover faster than business and group travel. The report projects leisure demand to recover to 76% of 2019 levels in 2021 and further recover in 2022 to 96% of 2019 levels. Tourism Economics projects that it will take until 2023-2024 for the tourism and hospitality sector in the City to fully recover from COVID-19.

In recent years, Philadelphia has seen an influx in new hotel development, with numerous new developments underway or confirmed. Such development in the City has represented over $1 billion in investment. In 2019, two major hotels opened – the Four Seasons and Pod Philly. Since the pandemic began in 2020, Philadelphia has seen the addition of six new hotels: LIVE, Hotel & Casino, Element Hotel, Hyatt Centric, W Hotel, Guild House, and Delta Hotel, bringing the City's hotel room inventory to over 30,000 guestrooms.

Museum, Cultural Centers, and Public Spaces

Crucial to tourism is the City's robust arts and culture sector. One in three tourists who come to Center City cite museums and cultural events as the primary reason for their visit. Top attractions in Philadelphia include Independence National Park, the Philadelphia Museum of Art, the Philadelphia Zoo, Reading Terminal Market, the Franklin Institute, Eastern State Penitentiary, and Franklin Square, among others.

Organizations like the Philadelphia Museum of Art, the Kimmel Center, Fringe Arts, and more than 490 smaller cultural organizations throughout the City help improve the quality of life for residents and visitors. Philadelphia's downtown arts and cultural organizations, the second largest concentration in the country, were challenged by the pandemic, but adapted with virtual programming and outdoor performances, and are now rapidly recovering. Philadelphia was recently named one of 11 cities around the world that are home to "Must-See Public Art," per Travel + Leisure's 2022 list, which cites iconic sculptures such as LOVE and Rocky, as well as the work done by Mural Arts Philadelphia and the Association for Public Art.

Avenue of the Arts (South Broad Street) Investments

The Avenue of the Arts is located along a mile-long section of South Broad Street between City Hall and Washington Avenue, in the heart of Center City. Reinventing South Broad Street as the Avenue of the Arts, a world class cultural destination, has been a civic goal in Philadelphia for more than two decades. Cultural institutions, the William Penn Foundation, local property owners and civic leaders advanced the idea of a performing arts district on South Broad Street anchored by the Academy of Music and modeled after successful performing arts districts around the country. The Avenue of the Arts became a key element of the City's strategy to strengthen Center City as the region's premier cultural destination and an important element in the City's bid to expand its convention and tourism industries.

The Benjamin Franklin Parkway

<u>The Parkway</u>. Complementing the Avenue of the Arts theater district developments, the Benjamin Franklin Parkway (the "Parkway") is considered the spine of Philadelphia's museum district. Dubbed the "Museum Mile," the Benjamin Franklin Parkway is home to Philadelphia's collection of noteworthy art museums. Designed by French architect Jacques Gréber, to emulate the Champs Elysées of Paris, the Parkway opened in 1929. It runs from the area of City Hall to the Philadelphia Museum of Art and is a central public space and tourist attraction. Key Parkway features include Love Park (which has undergone major renovations and was reopened in the spring of 2018), the Philadelphia Museum of Art, the Rodin Museum, the Franklin Institute, The Barnes Foundation, the Free Library of Philadelphia,

the Academy of Natural Sciences, the Swann Memorial Fountain, Sister Cities Park, Cathedral Basilica of Saints Peter and Paul on Logan Square, the Oval (as described below), and numerous pieces of public art. In the winter of 2021, the City announced plans to move forward with a long-term plan for a major redesign of the Parkway, from the Art Museum to Logan Circle, to develop a world class public space and improve access for pedestrians and public gatherings. The City expects to select a final design plan by the spring of 2022.

In May 2021, renovations at the Philadelphia Museum of Art were completed. Such renovations came at a cost of more than $230 million and opened 90,000 square feet of new public space.

The Oval is an eight-acre warm-weather urban park and reimagined public space located across from the Philadelphia Museum of Art. Introduced in 2013, the Oval became a summer pop-up park with community programming, events and activities. Designed to promote the Parkway as a neighborhood park for all Philadelphians, it offers a wide array of outdoor activities and amenities, and features park spaces for all ages.

The Barnes Foundation, which opened on the Parkway in 2012, has been a welcome addition to the City's impressive roster of arts facilities and has had a significant impact on the City's leisure and hospitality industry. As of 2018, the Barnes has welcomed over 1.8 million visitors from all 50 states and 70 countries. With 18,000 household memberships, it is ranked among the top institutions of its kind in the country.

Parks. During the COVID-19 pandemic, the City's parks and recreation centers became havens in new ways as residents and visitors—many of them children—relied on the centers, trails, parks and playgrounds for gathering with others in safe ways.

The City was originally designed by William Penn and Thomas Holme around five urban parks, each of which remains in Center City to this day. The City's parklands total over 10,300 acres, and include Fairmount Park, one of the world's largest landscaped urban parks at 9,200 acres, Pennypack Park, and the Philadelphia Zoo, the country's first zoo. The City also offers its residents and visitors America's most historic square mile, which includes Independence Hall and the Liberty Bell. Under the Rebuild initiative, which has commenced, it is expected that more than $400 million will be invested in Philadelphia parks, recreation centers, playgrounds, and libraries.

Historic District

Key to the City's leisure and hospitality growth is the maintenance and investment in the City's extraordinary historic assets. As the birthplace of the country, Philadelphia remains a major tourist destination year-round, particularly the City's Historic District, which includes various museums and cultural centers, as well as such national treasures as the Liberty Bell, Independence Hall, Carpenters' Hall, the Betsy Ross House and Elfreth's Alley, the Nation's oldest residential street. The City continues to invest in the maintenance and expansion of the Historic District's tourist experience.

The Pennsylvania Convention Center

In 1993, with support from the Commonwealth, the Pennsylvania Convention Center (the "Convention Center") was completed, providing a total of 624,000 square feet of saleable space across its four exhibit halls, ballroom and banquet spaces. In 2011, a $786 million expansion, across 20 acres of central Philadelphia real estate, increased the facility to 2.3 million square feet. It is the largest single public works project in Pennsylvania history. In 2014, SMG began managing and operating the Convention Center, instituting a number of measures intended to reduce and control show costs and improve customer service. In 2019, hotel rooms booked related to events taking place at the Convention Center grew by 11% year-over-year.

During the COVID-19 pandemic, the Convention Center was a mass vaccination site in the City as it ramped up its vaccination efforts for Philadelphia residents.

North Broad Street

North Broad Street serves as a main thoroughfare, spanning four miles from City Hall to Germantown Avenue. It is also the long-time home of the Pennsylvania Academy of the Fine Arts (PAFA) and Temple University. The corridor is experiencing revitalization, which includes improvements to the Lenfest Plaza at the Pennsylvania Academy of Fine Arts, the opening of the Aloft Hotel, the re-opening of the Philadelphia Metropolitan Opera House (for performances), the revitalization of the Divine Lorraine (for residential purposes) and the Studebaker Building (for commercial purposes), and much more. Development continues to move north along Broad Street, with significant investment taking place to restore the Beury Building and the Uptown Theater, and to establish the North Station District, a transit-oriented, mixed-use development.

South Philadelphia Sports Complex

Another key element of Philadelphia's hospitality industry is professional sports. Philadelphia is the only city to have a professional hockey, basketball, baseball, and football team playing in a single district within the City, the Sports Complex Special Services District, created by the City in 2000.

The South Philadelphia Sports Complex houses three professional sports facilities: The Wells Fargo Center opened in 1996 and is home to the Philadelphia Flyers (National Hockey League) and Philadelphia 76ers (National Basketball Association); Lincoln Financial Field opened in 2003 and is home to the Philadelphia Eagles (National Football League); and Citizens Bank Park opened in 2004 and is home to the Philadelphia Phillies (Major League Baseball). The Phillies and the Eagles are contractually obligated to play in Philadelphia until 2033 and 2034, respectively. Within the South Philadelphia Sports Complex is Xfinity Live!, a sports entertainment and dining complex. For information on casino development in the City and in the area near Xfinity Live!, see "ECONOMIC DEVELOPMENT STRATEGIES AND IMPLEMENTATION – Casinos" herein.

Retail Market, Food and Dining

In the last five years, the City's retail market has grown substantially, attracting 90 national retailers. While the City's retail market generates more than $1 billion in annual retail demand, such figure is expected to increase as more than 1.4 million square feet of retail space is currently under construction.

Downtown retail has proven resilient, with vacancy declining and brokers reporting an uptick in tenant interest and leasing activity. So far in 2022, 42 businesses have announced downtown openings and many more are expected. Since March 2020, Center City District welcomed 135 new storefront businesses, including 73 food and beverage establishments, 38 retailers, and 24 service providers. Of these, 41% were national or international brands and 59% independent businesses or regional chains. Center City's vibrant sidewalks offer customers the ability to discover a mix of local and regional retailers and restaurants. Downtown foot traffic recovery also outpaced other large cities including New York, Boston, and San Francisco. Market East, an important commercial area between City Hall and the City's Historic District is experiencing significant development. New developments in Market East represent a $910 million investment that is creating a continuous shopping and dining experience from Independence

Mall to the major Center City convention hotels, just east of City Hall. In late 2019, Fashion District Philadelphia (formerly the Gallery mall) opened to the public. A $420 million redevelopment project, the Fashion District is a unique retail development offering fashion, dining, entertainment, and arts and culture. The revitalization of this section of the City, also considered a major transport hub, is expected to be transformative. In July 2022, the Philadelphia 76ers announced that, beginning with the 2031-2032 season, it will relocate to a new arena to be built in the Fashion District. The new arena is expected to be privately funded and further contribute to the transformation this area of the City.

Complementing the rise of retail in Philadelphia, the City has experienced a revival of restaurant establishments, especially in Center City and Greater Center City, indicating an improved quality of life and vibrancy of those neighborhoods. Increased investment in Center City to beautify the area, as well as the City's support in making the area more welcoming to visitors and diners, has sparked a significant increase in the number of indoor/outdoor dining establishments throughout Center City, which now total over 1,058. Philadelphia's restaurant scene is estimated to comprise over 6,000 food establishments.

One of the silver linings of 2020 and 2021 was the growth of "streeteries" that added new vitality to Center City, keeping many restaurants active during the most challenging months. During the COVID-19 pandemic, the City implemented an open streets initiative to facilitate outdoor restaurant dining options. Parts of certain streets were closed off to traffic and parking to allow neighborhood restaurants to expand outdoor seating options as they dealt with the COVID-19-related closures.

TRANSPORTATION

Public Transportation

COVID. The COVID-19 pandemic has had an unprecedented impact on the City's transit system. On an average day before COVID-19, people in the Philadelphia region made over a million trips on public transit to access jobs, shopping, medical appointments, school, and many other destinations. With the pandemic, transit ridership is now at historically low levels both in Philadelphia and across the world.

Transit ridership in Philadelphia is recovering, but that recovery has been slowed by the Omicron surge. Services are recovered to 51% of their pre-COVID-19 ridership levels. While the economic challenges resulting from COVID-19 have severely reduced available funds for all types of public spending, including investments in transit, the federal infrastructure bill is expected to increase spending on transit and transportation.

Bipartisian Infrastructure Law. The Bipartisian Infrastructure Law provides unprecedented funding levels for infrastructure upgrades to not only the City, but also SEPTA, PennDOT, AMTRAK, and the Port of Philadelphia. The City estimates over $700 million in federal funding over 5 years in addition to approximately $180 million in State funds for infrastructure projects.

General. The residents of the City and surrounding counties are served by a commuter transportation system operated by SEPTA. This system includes two subway lines, a network of buses and trolleys, and a commuter rail network joining Center City and other areas of the City to PHL (as defined herein) and to the surrounding counties. For more information on SEPTA, see "– Southeastern Pennsylvania Transportation Authority" and APPENDIX III – "EXPENDITURES OF THE CITY – City Payments to SEPTA."

A high-speed train line runs from southern New Jersey to Center City and is operated by the Port Authority Transit Corporation ("PATCO"), a subsidiary of the Delaware River Port Authority. On the average pre-COVID-19 weekday, PATCO brings approximately 30,000 riders to Philadelphia.

New Jersey Transit operates 19 different bus routes and the Atlantic City Train Line, all of which serve to connect Philadelphia and New Jersey. On the average weekday, the New Jersey Transit bus routes bring approximately 4,000 riders to Philadelphia and the Atlantic City Line brings approximately 1,400 riders to Philadelphia, pre-COVID-19.

AMTRAK, SEPTA, Norfolk Southern, CSX Transportation, Conrail and the Canadian Pacific provide inter-city commuter and freight rail services connecting the City to other major cities and markets in the United States. According to Amtrak, Philadelphia's 30th Street Station is the third busiest station in the United States. Amtrak provides direct service along the Northeast corridor to destinations such as New York, Trenton, Wilmington, Baltimore, and DC, and well as service along the Keystone line to Harrisburg and Lancaster, plus several long-distance routes to other national locations.

Center City, the City's downtown core, is one of the most accessible downtown areas in the nation with respect to highway transportation by virtue of Interstate 95 ("I-95"); Interstate 676 (the "Vine Street Expressway"), running east-to-west through the CBD between Interstate 76 (the "Schuylkill Expressway") and I-95; and Interstate 476 (the "Blue Route") in suburban Delaware and Montgomery Counties, which connects the Pennsylvania Turnpike and I-95 and connects to the Schuylkill Expressway, which runs to Center City. In addition, more than 100 truck lines serve the Philadelphia area.

The City is served within city limits by numerous private buses and shuttles. These buses and shuttles are operated by apartment complexes, universities, and private companies. These buses and shuttles connect Philadelphians to transit hubs, employment, and residences. A rail line reaches PHL in less than 20 minutes from the City's central business district and connects directly with the commuter rail network and the Pennsylvania Convention Center.

Philadelphia launched the Indego bike share program, sponsored by Independence Blue Cross, in April 2015. The system launched with 600 bicycles and 70 stations throughout the City from Temple University in North Philadelphia to Tasker Street in South Philadelphia and from the Delaware River on the east to 44th Street in West Philadelphia. Indego is the first bike share system in the United States to launch with a cash payment option for members. Over the past six years, the City expanded Indego to 1,600 bicycles and 167 bike share stations, with stations as far north as Diamond Street in North Philadelphia, down to the Navy Yard in South Philadelphia, and from the Delaware River in the east to 52th Street in the west.

In 2019, electric-assist bicycles were added to the fleet and proved extremely popular with users – they were used approximately 4 times as often as standard bicycles. September 2021 marked the highest month of overall use of the program, with more than 106,000 trips made by 12,000 riders.

In 2020, the City of Philadelphia awarded a 10-year concessionaire contract to Bicycle Transit Systems, which includes a significant expansion of the Indego program over the next 5 years with the total system size at completion expected to be 350 stations and 3,500 bicycles with a fleet of approximately 50% electric assist bicycles.

Southeastern Pennsylvania Transportation Authority

SEPTA operates facilities across the PMSA, encompassing approximately 2,200 square miles and serving approximately 4.1 million inhabitants. SEPTA operates service 24 hours a day, seven days a week, 365 days a year. A significant segment of the region relies on SEPTA for public transportation and annual SEPTA ridership totaled more than 292.9 million in Fiscal Year 2019, which dropped to 106 million in Fiscal Year 2021.

SEPTA's operations are accounted for in three separate divisions: City Transit; Regional Rail; and Suburban Transit. The City Transit Division serves the City with a network of 89 subway-elevated, light rail, trackless trolley and bus routes, providing approximately 852,000 pre-COVID-19 unlinked passengers trips per weekday. The Regional Rail Division serves the City and the local counties with a network of 13 commuter rail lines providing approximately 120,000 pre-COVID-19 passenger trips per weekday.

SEPTA continues to rehabilitate and replace critical infrastructure and systems, such as substations, bridges, and stations. Its long-term capital program includes (i) safety and security enhancements, (ii) modernization of communication, signal equipment, and fare collection systems, (iii) replacement of rail vehicles that have exceeded their useful life, (iv) enhancing accessibility, (v) expanding capacity to address ridership growth, (vi) expanding its fleet of hybrid buses, and (vii) performing vehicle overhauls to optimize vehicle performance. SEPTA's capital budget for Fiscal Year 2023 is the largest in its history at over $1 billion dollars. The coordinated SEPTA Forward initiative is guiding the capital spending to ensure strategic alignment, along with bus and regional rail planning initiatives to increase ridership. SEPTA has been aggressive at pursuing federal and State funding for state-of-good-repair and strategic investments.

Airport System

The Airport System serves residents and visitors from a broad geographic area that includes 11 counties within four states: Pennsylvania, New Jersey, Delaware, and Maryland. The Airport System consists of the Philadelphia International Airport ("PHL" or the "Airport") and Northeast Philadelphia Airport ("PNE").

Philadelphia International Airport

PHL is classified by the Federal Aviation Administration as a large air traffic hub (enplaning 1.0% or more of the total passengers enplaned in the United States). According to data reported by Airports Council International – North America, PHL was ranked the twenty-first busiest airport in the United States, serving 11.2 million passengers in calendar year 2020. The Airport serves as a primary hub in American Airlines' route system. PHL is located approximately seven miles from Center City on approximately 2,598 acres.

PHL has four runways, consisting of two parallel runways, a crosswind runway, and a commuter runway, as well as interconnecting taxiways. PHL also has six active cargo facilities, various support buildings, training areas, an air traffic control tower, a fixed-base operator, corporate hangars, a fueling supply facility, and two American Airlines aircraft maintenance hangars.

PHL's terminal facilities consist of seven terminal units, totaling approximately 3.2 million square feet, which include ticketing areas, passenger and baggage screening areas, passenger hold rooms, baggage claim areas, a variety of food, retail and service establishments, and other support areas. PHL has a 14-story hotel, seven rental car facilities, a cell-phone lot, employee parking lots, five public parking garages, and a first-class office complex.

PHL's Airport-Airline Use and Lease Agreement (the "Airline Agreement") with its signatory airlines began July 1, 2015 and expired June 30, 2022. PHL has published an Airport Rates and Charges Regulation consistent with the FAA Policy Regarding Airport Rates and Charges with rates that are not materially different than rates that would have been established under the Airline Agreement. From July 1, 2022, airlines currently serving the Airport are expected to continue to operate under the same leaseholds as under the expired agreement and operations are expected to be largely consistent with current operations. Negotiations on a new Airline Agreement are ongoing.

Capital Development. The Airport System's long-term capital program includes (i) terminal and landside improvements, (ii) airfield improvements, (iii) security and information technology improvements, and (iv) land acquisition and ground transportation improvements, among other things.

COVID-19 and Geopolitical Issues. As with all airports in the United States and abroad, PHL has been affected by interruptions in travel and reductions in passenger volumes and flights, as well as by the broader effects of the COVID-19 pandemic and current geopolitical issues. As a result of the COVID-19 pandemic, PHL implemented cost-saving measures to mitigate the effects of reduced traffic on airport revenues and continues to closely monitor expenditures during the recovery period. Although challenges remain in the aviation industry, including potential new COVID-19 variants, geopolitical issues, including the war in Ukraine, and airline pilot shortages, air traffic has been steadily increasing at PHL throughout 2022.

PHL Passenger and Other Traffic Activity. During the second half of fiscal year 2021, travel began to resume and enplanements increased 18% compared to the same time in fiscal year 2020. As COVID-19 related restrictions were lifted and passengers resumed travel, the last quarter of fiscal year 2021 saw a 442% increase in enplanements as compared to the same time in fiscal year 2020.

For the first quarter of calendar year 2022, PHL has seen enplanements increase to 69% of 2019 enplanement levels, which is up 78% as compared to the first quarter of 2021 when enplanements were at 39% of the same period in 2019. The table below provides key metrics for activity at PHL for a rolling 12-month period through March 2022 versus March 2021.

	Rolling 12-Month Period		
Activity	through March 2022	through March 2021	% Change
Landed Weight - Revenue (000 lbs.)	16,200,807	10,908,293	48.5%
Operations	284,393	184,834	53.9%
Enplaned Passengers	10,885,368	4,473,921	143.3%
Cargo (Mail + Freight) (Tons)	641,352	628,774	2.0%

Northeast Philadelphia Airport

PNE is located approximately ten miles northeast of Center City on approximately 1,118 acres. PNE serves as a reliever airport for PHL and provides for general aviation, air taxi, corporate, and occasional military use. PNE currently has no scheduled commercial service. There are a variety of hangars (corporate and general aviation) at PNE. The Airport System's long-term capital program includes PNE improvement projects.

Port of Philadelphia

The Port of Philadelphia (the "Port") is located on the Delaware River within the City limits. The Port's facilities are serviced by two Class I railroads (CSX and Norfolk Southern) and provide service to major eastern Canadian points, as well as Midwestern, southern and southeastern U.S. destinations. In June 2022, the Port announced new, direct, all-water container service with Asia, which is expected to commence in August 2022. Terminal facilities, encompassing four million square feet of warehousing, are located in close proximity to Interstate 95 and Interstate 76. Over 1,600 local general freight trucking companies operate in the MSA.

The Philadelphia Regional Port Authority, or PhilaPort, operates the Port. PhilaPort achieved a double-digit growth in containers (15%), breakbulk (19%), and overall port tonnage (10%) in 2021 and is one of the fastest growing container ports on the East Coast.

In 2021, other growth categories for PhilaPort were (i) steel tonnage (up 196% year to date), (ii) wood pulp (up 11% year to date), (iii) lumber (up 11% year to date), (iv) cocoa beans (up 106% year to date), and (v) vessels (up 7% year to date).

In recent years, PhilaPort, along with the U.S. Army Corps of Engineers, completed the Delaware River Main Channel Deepening Project, a long-term project to deepen the main channel of the Delaware River from 40 to 45 feet. Such project was aimed at improving the Port's competitiveness by increasing container and auto capacity at the Port and increasing the Port's ability to handle wood pulp, a food grade commodity.

KEY CITY-RELATED SERVICES AND BUSINESSES

Municipal services provided by the City include: (i) police and fire protection; (ii) health care; (iii) certain welfare programs; (iv) construction and maintenance of local streets, highways, and bridges; (v) trash collection, disposal, and recycling; (vi) provision for recreational programs and facilities; (vii) maintenance and operation of the Water and Wastewater Systems; (viii) acquisition and maintenance of City real and personal property, including vehicles; (ix) maintenance of building codes and regulation of licenses and permits; (x) maintenance of records; (xi) collection of taxes and revenues; (xii) purchase of supplies and equipment; (xiii) construction and maintenance of the Airport System (see "TRANSPORTATION – Airport System"); and (xiv) maintenance of a prison system. Certain of these services are described in more detail below.

Water and Wastewater

The water and wastewater systems of the City are owned by the City and operated by the City's Water Department (the "Water Department"). The water and wastewater systems are referred to herein individually as the "Water System" and "Wastewater System", respectively.

The Water System service area includes the City and has one wholesale water service contract. Based on the 2020 U.S. Census Bureau estimate, the Water System served 1,603,797 individuals. As of June 30, 2021, the Water System served approximately 505,000 active customer accounts using approximately 3,100 miles of mains and approximately 25,000 fire hydrants.

The City obtains approximately 56.8% of its water from the Delaware River and the balance from the Schuylkill River. The City is authorized by the Pennsylvania Department of Environmental Protection (the "PaDEP") to withdraw up to 423 million gallons per day ("MGD") from the Delaware River and up to 258 MGD from the Schuylkill River.

Water treatment is provided by the Samuel S. Baxter Water Treatment Plant on the Delaware River and by the Belmont and Queen Lane Water Treatment Plants on the Schuylkill River. The combined rated treatment capacity of these plants under the Water Department's Partnership for Safe Water procedures is 546 MGD. The combined maximum source water withdrawal capacity from the two rivers that supply these plants is 680 MGD. The excess source water capacity enables higher than normal withdrawal from either river should conditions limit withdrawals from one.

The Wastewater System's service area includes the City and ten wholesale wastewater service contracts. Based on the 2020 U.S. Census Bureau estimate, the Wastewater System served 1,603,797 individuals that live in the City and ten wholesale contracts.

As of June 30, 2021, the Wastewater System served approximately 544,000 accounts, including approximately 51,000 stormwater-only accounts and ten wholesale contracts with neighboring municipalities, authorities and one corporation.

The Wastewater System consists of three water pollution control plants, the Northeast, Southwest and Southeast water pollution control plants (the "WPCPs"), 25 wastewater pumping stations, approximately 3,700 miles of sewers, and a privately managed centralized biosolids handling facility. It includes approximately 1,850 miles of combined sewers, 770 miles of sanitary sewers, 750 miles of stormwater sewers, 16 miles of force mains (sanitary and storm), and 330 miles of appurtenant piping. The three WPCPs processed a combined average of 444 MGD of wastewater in Fiscal Year 2021, have a 522 MGD combined average daily design capacity and a peak capacity of 1,059 MGD.

Gas Works

The City owns the assets that comprise the Philadelphia Gas Works ("PGW" or the "Gas Works"). PGW is the largest municipally-owned gas utility in the nation, is responsible for the acquisition and storage of natural gas and is the sole distributer of natural gas within the limits of the City. Such limits also define the service area of PGW which, being the corporate limits of the City, is a mostly dense urban area of 143 square miles located in southeast Pennsylvania along the Delaware River and within the smallest county of the Commonwealth.

PGW is principally a gas distribution utility, with a distribution system of approximately 3,041 miles of gas mains and 476,605 service lines. In addition, PGW operates facilities for the liquefaction, storage, and vaporization of natural gas to supplement gas supply taken directly from interstate pipeline and storage companies. The principal PGW natural gas supply facilities include nine City gate stations, owned in large part by the interstate natural gas pipeline companies serving PGW, and two liquefied natural gas plants owned by the City and operated by PGW.

The City Charter provides for a Gas Commission (the "Gas Commission") to be constituted and appointed in accordance with the provisions of contracts between the City and the operator of PGW as may from time to time be in effect, or, in the absence of a contract, as may be provided by ordinance. The Gas Commission consists of the City Controller, two members appointed by City Council and two members appointed by the Mayor.

PGW's operations are managed by the Philadelphia Facilities Management Corporation ("PFMC"), a Pennsylvania non-profit corporation specifically organized to manage and operate PGW for the benefit of the City. PFMC's responsibilities are set forth in a Management Agreement between the City and PFMC dated December 29, 1972, as subsequently amended ("Management Agreement"), which delegates responsibility for PGW's operation to an executive management team provided by PFMC. Under the Management Agreement, those responsibilities that are not specifically granted to PFMC are the responsibilities of the Gas Commission, except to the extent preempted by the Pennsylvania Public Utility Commission (the "PUC") pursuant to the Pennsylvania Natural Gas Choice and Competition Act (the "Gas Choice Act"). The Gas Choice Act made PGW subject to regulation by the PUC effective July 1, 2000, and provides that choice among natural gas suppliers will be provided to PGW's customers.

For more information on PGW, see APPENDIX III – "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Government Services, "PGW PENSION PLAN," "PGW OTHER POST-EMPLOYMENT BENEFITS," "EXPENDITURES OF THE CITY – PGW Annual Payments," and "LITIGATION – PGW."

Libraries

The Free Library of Philadelphia, the City's public library system, comprises 54 branches (with a variety of digital, computer-based services at certain locations) and an extensive online resource system.

Streets and Sanitation

The Philadelphia Streets Department (the "Streets Department") and the divisions within it are responsible for the City's large network of streets and roadways. The City's pavement condition is considered to be in "Fair" pavement condition. In order for the City to maintain its pavement in a state of good repair, local streets should be repaved once every 20 years and arterials should be repaved once every 10 years. This requires approximately 131 miles of paving every year. The pavement program has accumulated a backlog of approximately 1,100 miles since 1996. During Fiscal Years 2015-2020, the Streets Department invested in critical equipment replacements and began to implement a strategy to address recurring state of good repair needs. The Streets Department is also emphasizing an objective, data-oriented approach towards strategically addressing roadway conditions throughout the City. New geographical information system (GIS) and global position system (GPS) technology and systems are being used, along with objective assessment tools, to rate and monitor the quality and condition of streets and roadways to prioritize paving plans.

The Streets Department is also responsible for the ongoing collection and disposal of residential trash and recyclables, the overall cleanliness of city streets, the construction and maintenance of city streets roadways, bridges and street lighting system and management and engineering of the city's local traffic network. The streets system in Philadelphia totals 2,575 miles – 2,180 miles of City streets, 35 miles of Fairmount Park roads and 360 miles of state highways. The Sanitation Division annually collects and disposes of over 620,000 tons of rubbish and 80,000 tons of recycling (although the impact of the COVID-19 pandemic has recently significantly increased rubbish tonnage amounts beyond this level), and works to combat illegal dumping.

Sustainability and Green Initiatives

Mayor Kenney continues the City's commitment to make Philadelphia the greenest and most sustainable city in America. To aid in achieving this goal, the Philadelphia Energy Authority has been tasked with improving energy sustainability and affordability in the City and with educating consumers on their energy choices. Certain energy savings financings have also been undertaken by the Philadelphia Municipal Authority and the Philadelphia Authority for Industrial Development. The City is investing in and evaluating additional options and investing in both green and traditional infrastructure to better manage storm water reclamation and reduce pollution of the City's public waters. There has been extensive investment in creating more and better public green spaces, such as Love Park in Center City, as well as green spaces along both the Delaware and Schuylkill Rivers. Finally, the City has been taking steps to further reduce automobile traffic, congestion and pollution by making Philadelphia's streets increasingly friendly to bicyclists. The City introduced its new bicycle sharing system, Indego, in 2015, as further described in "TRANSPORTATION."

In furtherance of sustainability and green initiatives, in January 2021, Mayor Kenney announced, among other things, that the City hired a Chief Resilience Officer (CRO), Saleem Chapman, to oversee the City's preparedness to address climate change issues. The City has begun looking beyond risks posed to municipal government, undertaking early steps to develop a roadmap for citywide adaptation to climate change. The CRO is establishing an internal Resiliency Cabinet to ensure climate resilience is incorporated throughout City operations and planning. OOS has convened an inter-agency working group to carry out neighborhood-level climate risk assessments and planning. Initial efforts focused on one of Philadelphia's most heat vulnerable neighborhoods. The inter-agency working group collaborated with Hunting Park community organizations to understand how residents cope with high heat and what interventions they would want to help reduce temperatures. This collaboration cumulated in the publishing of Beat the Heat Hunting Park: A Community Heat Relief Plan, the City's first community-led climate resiliency plan. Another inter-agency working group is being convened to address flood risk along the Lower Schuylkill, in concert with the Eastwick community and other stakeholders. Other planning activities are currently underway that will identify strategic actions to advance resilience citywide. Through its strategic planning for the urban forest, Philadelphia Parks and Recreation is exploring how to increase tree canopy in neighborhoods vulnerable to the effects of extreme heat since trees cool the air and reduce heat islands. The Philadelphia Office of Emergency Management is actively integrating climate change and climate adaptation strategies in the update of the Hazard Mitigation Plan, which will assist with both local and statewide planning aimed at increasing community resilience.

For more information on climate change in the City, see APPENDIX III – "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Climate Change."

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APPENDIX V

FORM OF APPROVING OPINION OF CO-BOND COUNSEL

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APPENDIX V

FORM OF APPROVING OPINION OF CO-BOND COUNSEL

Re: $294,810,000 City of Philadelphia, Pennsylvania Water and Wastewater Revenue Bonds, Series 2022C

We have acted as Co-Bond Counsel to The City of Philadelphia, Pennsylvania (the "City") in connection with the issuance by the City of $294,810,000 aggregate principal amount of its Water and Wastewater Revenue Bonds, Series 2022C (the "Bonds"). The Bonds are issued under and pursuant to (a) 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"); (b) the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 approved June 24, 1993, as amended by an Ordinance approved on January 23, 2007 and the Twenty-First Supplemental Ordinance dated April 24, 2018 (as so amended, the "General Ordinance"), and as supplemented, including by the Twenty-Second Supplemental Ordinance, approved by the Mayor on May 15, 2019 (the "Supplemental Ordinance") authorizing the issuance of the Bonds; and (c) the Bond Committee Determination dated August 9, 2022 (the "Bond Committee Determination"). Capitalized terms used but not defined herein have the meanings assigned to such terms in the General Ordinance.

The Bonds are being issued for the purpose of providing funds that will be used to finance (a) capital improvements to the City's Water System and Wastewater System (the "System") and (b) the costs of issuing the Bonds.

The City previously has issued, pursuant to the General Ordinance, and there are outstanding Water and Wastewater Revenue and Revenue Refunding Bonds, consisting of the Series 2009B (Pennvest), the Series 2009C (Pennvest), the Series 2009D (Pennvest), the Series 2010B (Pennvest), the Series 2013A, the Series 2014A, the Series 2015B, the Series 2016A, the Series 2017A, the Series 2017B, the Series 2018A, the Series 2019A, the Series 2019B, the Series 2020 (Forward Delivery), the Series 2020A, the Series 2020B, the Series 2021A (Pennvest), the Series 2021B, the Series 2021C, the Series 2021D (Pennvest), the Series 2022A (Pennvest) and the Series 2022B (Pennvest) (collectively with any of the City's Water and Wastewater Revenue Commercial Paper Notes Series A, Series B, or Series C currently outstanding, the "Outstanding Bonds"). The Outstanding Bonds, the Bonds and all other Water and Wastewater Revenue Bonds hereafter issued by the City under the General Ordinance are and will be equally and ratably secured to the extent provided in the General Ordinance and the Act by the pledge of, and the security interest created in, all Project Revenues derived from the System and all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established pursuant to the General Ordinance.

The City has covenanted in the Supplemental Ordinance and the Bond Committee Determination that it will make or permit no investment or other use of the proceeds of the Bonds that would cause the Bonds to be "arbitrage bonds" under Section 148 of the Internal Revenue Code of 1986, as amended (the "Code"), and the rules promulgated thereunder, and that it will comply with the requirements of said Section throughout the term of the Bonds. The City has further covenanted that it will comply with the requirements of the Code that must be met after the issuance of the Bonds in order that interest on the Bonds be excluded from gross income for federal income tax purposes. An officer of the City has executed a certificate stating the reasonable expectations of the City on the date of issue of the Bonds as to future events that are material for purposes of Section 148 of the Code pertaining to arbitrage bonds. We have reviewed this certificate, and in our opinion the Bonds are not arbitrage bonds. The City is filing with the Internal Revenue Service a report of the issuance of the Bonds as required by Section 149(e) of the Code as a condition of the exclusion from gross income of the interest on the Bonds for federal income tax purposes. We have not undertaken to monitor compliance with respect to the aforesaid covenants or to advise any party as to changes in the law that may affect the exclusion of interest on the Bonds from gross income for federal income tax purposes.

We have examined such proceedings, documents, statutes and decisions, as we consider necessary as the basis for this opinion, including, *inter alia*, the Act, the General Ordinance, the Supplemental Ordinance, the Bond Committee Determination, and an executed and authenticated Bond. We assume that all other Bonds have been similarly executed and authenticated. We also assume that all documents, records, certifications and other instruments examined by us are genuine (including the signatures thereon), accurate and complete and we have not undertaken, by independent investigation, to verify the factual matters set forth in any such documents, records, certifications or other instruments.

Based on the foregoing, it is our opinion that:

1. The City has the power under the Constitution and the laws of the Commonwealth of Pennsylvania (the "Commonwealth") to perform its obligations under the General Ordinance, the Supplemental Ordinance, the Bond Committee Determination and the Bonds.

2. Under the Constitution and the laws of the Commonwealth, including the Act, the City is authorized to issue the Bonds, and the terms of the Bonds comply with the requirements of the Act, the General Ordinance, the Supplemental Ordinance and the Bond Committee Determination.

3. The purposes for which the Bonds have been issued are lawful purposes under the Act and the General Ordinance.

4. The General Ordinance and the Supplemental Ordinance have been duly enacted, and the Bond Committee Determination has been duly authorized, executed and delivered by the City; and each is a legal, valid and binding obligation of the City enforceable in accordance with its terms, except as the rights created thereunder and the enforcement thereof may be limited by bankruptcy, insolvency, moratorium or other laws or legal or equitable principles affecting the enforcement of creditors' rights.

5. The Bonds have been duly authorized, executed, authenticated, issued and delivered and are legal, valid and binding obligations of the City, enforceable in accordance with their terms, except as enforcement may be limited as described in paragraph 4 above.

6. Under the Act and the General Ordinance, the Bonds constitute special obligations of the City payable solely from Project Revenues and all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established pursuant to the General Ordinance, together with interest earnings, if any, on amounts in such funds and accounts (other than the Rebate Fund). The Bonds do not pledge the credit or taxing power or create any debt or charge against the tax or general revenues of the City or create any lien against property of the City other than all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established pursuant to the General Ordinance, together with interest earnings on amounts in such funds and accounts (other than the Rebate Fund).

7. Interest on the Bonds is excludable from gross income for purposes of federal income tax under existing laws as enacted and construed on the date of initial delivery of the Bonds, assuming the accuracy of the certifications of the City and continuing compliance by the City with the requirements of the Code. Interest on the Bonds is not an item of tax preference for purposes of federal alternative minimum

tax. We express no opinion regarding other federal tax consequences of ownership or disposition of, or the accrual or receipt of interest on, the Bonds.

8. Under the laws of the Commonwealth, as enacted and construed on the date of the issuance of the Bonds, interest on the Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax. We express no opinion regarding other state or local tax consequences with respect to the Bonds, including whether or not interest on the Bonds is taxable under the laws of any jurisdiction other than the Commonwealth.

In rendering the opinion set forth in paragraph 7, we have assumed compliance by the City with the covenants contained in the General Ordinance, the Supplemental Ordinance and the Bond Committee Determination that are intended to comply with the requirements in the Code relating to actions to be taken by the City in respect of the Bonds after the issuance thereof to the extent necessary to effect or maintain the federal exclusion from gross income of the interest on the Bonds. Failure to comply with such covenants could cause the interest on the Bonds to be includable in gross income retroactively to the date of issuance of the Bonds.

We render this opinion as of the date hereof on the basis of federal law and the laws of the Commonwealth as enacted and construed on the date hereof. We express no opinion as to any matter not set forth in the numbered paragraphs herein, including, without limitation, the accuracy or completeness of the preliminary or final official statement or other documents prepared or statements made in connection with the offering and sale of the Bonds, and make no representation that we have independently verified the contents thereof.

Very truly yours,

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APPENDIX VI

FORM OF CONTINUING DISCLOSURE AGREEMENT

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CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Agreement") dated August 16, 2022, is entered into and by and between the City of Philadelphia, Pennsylvania (the "City") and Digital Assurance Certification, L.L.C., as dissemination agent ("Dissemination Agent") in connection with the issuance and sale by the City of $294,810,000 aggregate principal amount of its Water and Wastewater Revenue Bonds, Series 2022C (the "Bonds"). The Bonds are being issued pursuant to the Act and the General Ordinance. Capitalized terms used in this Agreement but not defined herein shall have the meanings ascribed to such terms in the Official Statement, including Appendix III-A and Appendix III-B thereto.

In consideration of the mutual covenants, promises and agreements contained herein and intending to be legally bound hereby, the parties hereto agree as follows:

ARTICLE I

The Undertaking

Section 1.1. Purpose. This Agreement is authorized to be executed and delivered by the City pursuant to the General Ordinance and Section 7 of the Bond Committee Determination in order to assist the Underwriters in complying with subsection (b)(5) of the Rule.

Section 1.2. Annual Financial Information. (a) Commencing with the fiscal year ending June 30, 2022, the Disclosure Representative shall deliver to the Dissemination Agent no later than February 28, 2023, and no later than each succeeding February 28 thereafter, Annual Financial Information with respect to each fiscal year of the City. The Dissemination Agent shall promptly upon receipt thereof file the Annual Financial Information with EMMA (as defined herein).

(b) The Dissemination Agent shall provide, in a timely manner, notice of any failure of the City to provide the Annual Financial Information by the date specified in subsection (a) hereof.

Section 1.3. Audited Financial Statements. If not provided as part of Annual Financial Information by the date required by Section 1.2(a) hereof, the Disclosure Representative shall provide Audited Financial Statements, when and if available, to the Dissemination Agent. The Dissemination Agent shall promptly upon receipt thereof file such Audited Financial Statements with EMMA.

Section 1.4. Notice Events. (a) If a Notice Event occurs, the Disclosure Representative shall provide through the Dissemination Agent, in a timely manner not in excess of ten (10) business days after the occurrence of such Notice Event, notice of such Notice Event to EMMA.

(b) Any notice of a defeasance of the Bonds shall state whether the Bonds have been escrowed to maturity or to an earlier redemption date and the timing of such maturity or redemption.

(c) Each Notice Event notice relating to the Bonds shall include the CUSIP numbers of the Bonds to which such Notice Event notice relates or, if the Notice Event notice relates to all bond issues of the City including the Bonds, such Notice Event notice need only include the CUSIP number of the City.

(d) The Dissemination Agent shall promptly advise the City whenever, in the course of performing its duties as Dissemination Agent under this Agreement, the Dissemination Agent has actual notice of an occurrence which, if material, would require the City to provide notice of a Notice Event hereunder; provided, however, that the failure of the Dissemination Agent so to advise the City shall not constitute a breach by the Dissemination Agent of any of its duties and responsibilities under this Agreement.

Section 1.5. Additional Information. Nothing in this Agreement shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Financial Information or notice of Notice Event hereunder, in addition to that which is required by this Agreement. If the City chooses to do so, the City shall have no obligation under this Agreement to update such additional information or include it in any future Annual Financial Information or notice of a Notice Event hereunder.

Section 1.6. Additional Disclosure Obligations. The City acknowledges and understands that other state and federal laws, including but not limited to the Securities Act of 1933 and Rule 10b-5 promulgated under the Securities Exchange Act of 1934, may apply to the City and that, under some circumstances, compliance with this Agreement without additional disclosures or other action may not fully discharge all duties and obligations of the City under such laws.

ARTICLE II

Operating Rules

Section 2.1. Reference to Other Filed Documents. It shall be sufficient for purposes of Section 1.2 hereof if the City provides Annual Financial Information by specific reference to documents (i) available to the public on the MSRB internet web site (currently, www.emma.msrb.org) or (ii) filed with the SEC. The provisions of this Section shall not apply to notices of Notice Events pursuant to Section 1.4 hereof.

Section 2.2. Submission of Information. Annual Financial Information may be set forth or provided in one document or a set of documents, and at one time or in part from time to time.

Section 2.3. Dissemination Agent. The City has designated the Dissemination Agent as its agent to act on its behalf in providing or filing notices, documents and information as required of the City under this Agreement. The City may revoke or modify such designation. Upon any revocation of such designation, the City shall comply with its obligation to provide or file notices, documents and information as required under this Agreement or may designate another agent to act on its behalf.

Section 2.4. Transmission of Notices, Documents and Information. (a) Unless otherwise required by the MSRB, all notices, documents and information provided to the MSRB shall be provided to the MSRB's Electronic Municipal Markets Access ("EMMA") system, the current internet web address of which is www.emma.msrb.org.

(b) All notices, documents and information provided on EMMA shall be provided in an electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

Section 2.5. Fiscal Year. (a) The City's current fiscal year begins July 1, and the City shall promptly file a notification on EMMA, through the Dissemination Agent, of any change in its fiscal year.

(b) Annual Financial Information shall be provided at least annually notwithstanding any fiscal year longer than twelve (12) calendar months.

ARTICLE III

Effective Date, Termination, Amendment and Enforcement

Section 3.1. Effective Date; Termination. (a) This Agreement shall be effective upon the issuance of the Bonds.

(b) The City's and the Dissemination Agent's obligations under this Agreement shall terminate upon a legal defeasance, prior redemption or payment in full of all of the Bonds.

Section 3.2. Amendment. (a) This Agreement may be amended, by written agreement of the parties, without the consent of the holders of the Bonds (except to the extent required under clause (4)(ii) below), if all of the following conditions are satisfied: (1) such amendment is made in connection with a change in circumstances that arises from a change in legal (including regulatory) requirements, a change in law (including rules or regulations) or in interpretations thereof, or a change in the identity, nature or status of the City or the type of business conducted thereby, (2) this Agreement as so amended would have complied with the requirements of the Rule as of the date of this Agreement, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, (3) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the same effect as set forth in clause (2) above, (4) either (i) the City shall have delivered to the Dissemination Agent an opinion of Counsel or a determination by an entity, in each case unaffiliated with the City (such as bond counsel or the Dissemination Agent), addressed to the City and the Dissemination Agent, to the effect that the amendment does not materially impair the interests of the holders of the Bonds or (ii) the holders of the Bonds consent to the amendment to this Agreement pursuant to the same procedures as are required for amendments to the General Ordinance with consent of holders of Bonds pursuant to the General Ordinance as in effect at the time of the amendment, and (5) the Disclosure Representative shall have delivered copies of such opinion(s) and amendment to the Dissemination Agent. The items provided in clause (5) shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(b) This Agreement may be amended, by written agreement of the parties, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) an amendment to the Rule is adopted, or a new or modified official interpretation of the Rule is issued, after the effective date of this Agreement which is applicable to this Agreement, (2) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the effect that performance by the City and the Dissemination Agent under this Agreement as so amended will not result in a violation of the Rule and (3) the Disclosure Representative shall have delivered copies of such opinion and amendment to the Dissemination Agent. The items provided in clause (3) shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(c) This Agreement may be amended by written agreement of the parties, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the effect that the amendment is permitted by rule, order or other official pronouncement, or is consistent with any interpretive advice or no-action positions of Staff, of the SEC, and (2) the Disclosure Representative shall have delivered copies of such opinion and amendment to the Dissemination Agent. The items provided in clause (2) shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(d) To the extent any amendment to this Agreement results in a change in the type of financial information or operating data provided pursuant to this Agreement, the first Annual Financial Information provided thereafter shall include a narrative explanation of the reasons for the amendment and its effect on the type of operating data or financial information being provided.

(e) If an amendment is made pursuant to Section 3.2(a) hereof to the accounting principles to be followed by the City in preparing its financial statements, the Annual Financial Information for the fiscal year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative and, to the extent reasonably feasible, quantitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information.

Section 3.3. Benefit; Third-Party Beneficiaries; Enforcement. (a) The provisions of this Agreement shall constitute a contract with and inure solely to the benefit of the holders from time to time of the Bonds, except that beneficial owners of Bonds shall be third-party beneficiaries of this Agreement. The provisions of this Agreement shall create no rights in any person or entity except as provided in this subsection (a) and in subsection (b) of this Section.

(b) The obligations of the City to comply with the provisions of this Agreement shall be enforceable by any holder of Outstanding Bonds. The holders' rights to enforce the provisions of this Agreement shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of the City's obligations under this Agreement. In consideration of the third-party beneficiary status of beneficial owners of Bonds pursuant to subsection (a) of this Section, beneficial owners shall be deemed to be holders of Bonds for purposes of this subsection (b).

(c) Any failure by the City or the Dissemination Agent to perform in accordance with this Agreement shall not constitute a default or an Event of Default under the General Ordinance, and the rights and remedies provided by the General Ordinance upon the occurrence of a default or an Event of Default shall not apply to any such failure.

(d) This Agreement shall be construed and interpreted in accordance with the laws of the Commonwealth, and any suits and actions arising out of this Agreement shall be instituted in a court of competent jurisdiction in the Commonwealth; provided, however, that to the extent this Agreement addresses matters of federal securities laws, including the Rule, this Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

ARTICLE IV

Definitions

Section 4.1. Definitions. The following terms used in this Agreement shall have the following respective meanings:

(1) "Act" means 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.

(2) "Annual Financial Information" means, collectively, (i) the Annual Financial Report-Philadelphia Water Department for the most recently ended fiscal year and, if not included or able to be derived from information presented therein, updates to the information presented in the Official Statement under the headings and in the Tables enumerated in the schedule annexed hereto as Exhibit A and made a part hereof, (ii) financial information or operating data with respect to the City, substantially similar to the type set forth in Appendices IV and V of the Official Statement, delivered at least annually pursuant to

Section 1.2(a) hereof and in accordance with the Rule and (iii) the information regarding amendments to this Agreement required pursuant to Sections 3.2(d) and (e) of this Agreement. Annual Financial Information shall include Audited Financial Statements, if available, or Unaudited Financial Statements.

In connection with Section 4.1.(2)(ii), it is the City's intention to satisfy all or a portion of the obligations set forth therein by submitting to EMMA (A) its "Annual Report of Bonded Indebtedness and Other Long Term Obligations" in substantially the same format as such report for the fiscal year ended June 30, 2021, and (B) with respect to financial information or operating data regarding the Pension System, either (i) the annual audited financial statements of the Municipal Pension Fund, (ii) an Official Statement of the City that updates the financial information and operating data under the heading "Pension System," as included in the Official Statement, or (iii) updated financial information and operating data under the heading "Pension System," as included in the Official Statement.

The descriptions contained in Section 4.1(2)(i) hereof of financial information and operating data constituting Annual Financial Information are of general categories of financial information and operating data. When such descriptions include information that no longer can be generated because the operations to which it related have been materially changed or discontinued, a statement to that effect shall be provided in lieu of such information. Any Annual Financial Information containing modified financial information or operating data shall explain, in narrative form, the reasons for the modification and the impact of the modification on the type of financial information or operating data being provided.

(3) "Audited Financial Statements" means the annual financial statements, if any, of the City, which includes the financial statements of the Water Fund, audited by such auditor as shall then be required or permitted by Commonwealth law. Audited Financial Statements shall be prepared in accordance with GAAP; provided, however, that pursuant to Sections 3.2(a) and (e) hereof, the City may from time to time, if required by federal or Commonwealth legal requirements, modify the accounting principles to be followed in preparing its financial statements. The notice of any such modification required by Section 3.2(a) hereof shall include a reference to the specific federal or Commonwealth law a regulation describing such accounting principles, or other description thereof.

(4) "Bond Committee Determination" means the Bond Committee Determination for the Bonds adopted by the Bond Committee (consisting of the Mayor, the City Solicitor and the City Controller and acting by a majority thereof) on August 9, 2022.

(5) "Commonwealth" means the Commonwealth of Pennsylvania.

(6) "Counsel" means any nationally recognized bond counsel or counsel expert in federal securities laws.

(7) "Disclosure Representative" means the Director of Finance of the City, the City Treasurer or such other official or employee of the City as the Director of Finance or the City Treasurer shall designate in writing to the Dissemination Agent.

(8) "Financial Obligation" means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) guarantee of (i) or (ii). The term Financial Obligation shall not include municipal securities as to which a final official statement has been provided to the Municipal Securities Rulemaking Board consistent with the Rule.

(9) "Fiscal Agent" means U.S. Bank National Association, as fiscal agent and registrar for the Bonds.

(10) "GAAP" means generally accepted accounting principles as prescribed from time to time for governmental units by the Governmental Accounting Standards Board, the Financial Accounting Standards Board, or any successor to the duties and responsibilities of either of them.

(11) "General Ordinance" means the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989, approved June 24, 1993, as supplemented and amended by twenty-three (23) supplemental ordinances, as further supplemented or amended from time to time.

(12) "MSRB" means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Agreement.

(13) "Notice Event" means any of the following events with respect to the Bonds, whether relating to the City or otherwise:

(i) principal and interest payment delinquencies;

(ii) non-payment related defaults, if material;

(iii) unscheduled draws on debt service reserves reflecting financial difficulties;

(iv) unscheduled draws on credit enhancements reflecting financial difficulties;

(v) substitution of credit or liquidity providers, or their failure to perform;

(vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;

(vii) modifications to rights of Bondholders, if material;

(viii) Bond calls, if material, and tender offers;

(ix) defeasances;

(x) release, substitution, or sale of property securing repayment of the Bonds, if material;

(xi) rating changes;

(xii) bankruptcy, insolvency, receivership or similar event of the City;

(xiii) the consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the assets of the City, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

(xiv) appointment of a successor or additional paying agent, or the change of name of a paying agent, if material;

(xv) the incurrence of a Financial Obligation of the obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the obligated person, any of which affect securities holders, if material; and

(xvi) a default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the obligated person, any of which reflect financial difficulties.

(14) "Official Statement" means the Official Statement dated August 9, 2022, of the City relating to the Bonds.

(15) "Registered Owner" or "Registered Owners" means the person or persons in whose name a Bond is registered on the books of the City maintained by the Fiscal Agent in accordance with the General Ordinance. For so long as the Bonds shall be registered in the name of the Securities Depository or its nominee, the term "Registered Owner" or "Registered Owners" also means and includes, for the purposes of this Agreement, the owners of book-entry credits in the Bonds evidencing an interest in the Bonds; provided, however, that the Dissemination Agent shall have no obligation to provide notice hereunder to owners of book-entry credits in the Bonds except those who have filed their names and addresses with the Dissemination Agent for the purposes of receiving notices or giving direction under this Agreement.

(16) "Rule" means Rule 15c2-12 promulgated by the SEC under the Securities Exchange Act of 1934 (17 CFR Part 240, §240.15c2-12), as amended, as in effect on the date of this Agreement, including any official interpretations thereof issued either before or after the effective date of this Agreement which are applicable to this Agreement.

(17) "SEC" means the United States Securities and Exchange Commission.

(18) "Securities Depository" shall mean The Depository Trust Company, New York, New York, or its nominee, Cede & Co., or successor thereto appointed pursuant to the General Ordinance.

(19) "Unaudited Financial Statements" means the same as Audited Financial Statements, except that they shall not have been audited.

(20) "Underwriters" means the financial institutions named on the cover of the Official Statement.

ARTICLE V

Miscellaneous

Section 5.1. Duties, Immunities and Liabilities of the Dissemination Agent. The Dissemination Agent shall have only such duties under the Agreement as are specifically set forth in this Agreement, and the City agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct in the performance of its duties hereunder. The obligations of the City under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

Section 5.2. Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, THE CITY OF PHILADELPHIA, PENNSYLVANIA, has caused this Disclosure Agreement to be executed by the Director of Finance and DIGITAL ASSURANCE CERTIFICATION, L.L.C., as Dissemination Agent, has caused this Disclosure Agreement to be executed by one of its authorized officers, all as of the day and year first above written.

THE CITY OF PHILADELPHIA, PENNSYLVANIA

By:______________________________
Name: Rob Dubow
Title: Director of Finance

DIGITAL ASSURANCE CERTIFICATION, L.L.C.,
as Dissemination Agent

By:______________________________
Name:
Title:

EXHIBIT A

Table 1 – Debt Service Requirements

Table 2 – Outstanding Indebtedness

Table 3 – Top 10 Customers

Table 4 – Wholesale Water and Wastewater Customer Revenues and Contract Terms

Table 5 – Capital Improvement Program and COA Budget

Table 8 – Condensed Statement of Net Position

Table 9 – Historical Operating Results

Table 10 – Rate Covenant Compliance

APPENDIX VII

BOOK-ENTRY ONLY SYSTEM

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BOOK-ENTRY ONLY SYSTEM

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) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for each maturity of the Bonds, each in the aggregate principal amount thereof, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has an S&P rating of "AA+." The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

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 and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

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

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all the Bonds of a series within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the issuer 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 Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the City or the Fiscal Agent, on payable dates in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Fiscal Agent, or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City or the Fiscal Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the City or the Fiscal Agent. Under such circumstances, in the event that a successor 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-only 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 completeness or accuracy thereof, or the absence of materially adverse changes in such information subsequent to the date hereof. For further information, Beneficial Owners should contact DTC in New York, New York.

SEAL OF THE CITY OF PHILADELPHIA

PHILADELPHIA MANETO